

# JETOC

## INFORMATION SHEET

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#### I. Laws, Regulations and Related Matters

*No.59 Oct. 2007 ~ Mar. 2008*

## Abbreviations

|      |                                                        |
|------|--------------------------------------------------------|
| CSC  | Chemical Substances Control Law (Japan)                |
| ISHL | Industrial Safety and Health Law (Japan)               |
| MCA  | Management and Coordination Agency (Japan)             |
| METI | Ministry of Economy, Trade and Industry (Japan)        |
| MHLW | Ministry of Health, Labour and Welfare (Japan)         |
| MLIT | Ministry of Land, Infrastructure and Transport (Japan) |
| MOE  | Ministry of the Environment (Japan)                    |
| PDSL | Poisonous and Deleterious Substances Law (Japan)       |

# I. Laws, Regulations and Related Matters

## 1. Japan

### 1.1 Chemical Substances Control Law (CSCL)

#### 1.1.1 Publication of Class I Specified Chemical Substance (MHLW, METI and MOE)

(Japanese Official Gazette, Extra Edition No.250, p.2, October 31, 2007)

(Japanese Official Gazette, No.4707, p.3, November 12, 2007)

The following substance, used as an UV absorber in plastic products, was added to the Class I Specified Chemical Substance. Articles 1 and 3 of the Cabinet Order of the CSCL were amended accordingly. In response to this, the said substance was deleted from the list of the Type I Monitored Substances (Registration No.17) effective on November 10, 2007.

| Registration No. | Substance                                               | CAS No.   | Gazette Reference No. |
|------------------|---------------------------------------------------------|-----------|-----------------------|
| 16               | 2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butyl phenol | 3846-71-7 | 5-3580<br>5-3604      |

Manufacture, import and use of the said substance were banned in principle effective on November 1, 2007 and import of the following products containing the said substance will be prohibited from May 1, 2008.

- (1) Decorated boards
- (2) Adhesives (excluding those of animals and plants origin), putties and fillers for caulking or sealing use
- (3) Paints and printing inks
- (4) Helmets
- (5) Radiator grills and other auto parts (excluding metallic parts)
- (6) Lighting covers
- (7) Lenses for protective spectacles and frames for spectacles
- (8) Deodorants
- (9) Waxes
- (10) Surfboards
- (11) Ink ribbons
- (12) Photographic papers
- (13) Buttons
- (14) Plastic pipes, bathtubs and other plastic molded articles.

The background of the revision of the Cabinet Order and physical-chemical properties, biodegradation, bioaccumulation, and toxicity of the said substance can be obtained on the METI website at

[http://www.meti.go.jp/policy/chemical\\_management/CSCL/class1.html](http://www.meti.go.jp/policy/chemical_management/CSCL/class1.html).

### 1.1.2 Measures on substances containing traces of the Specific Chemical Substance

#### 1) Partial amendment of the Implementation Guideline of the CSCL

(Pharmaceutical and Food Safety Bureau, MHLW  
Manufacturing Industries Bureau, METI  
Environmental Policy Bureau, MOE  
October 15, 2007)

Responding to the information that traces of certain Class I Specific Chemical Substance (Hexachlorobenzene (HCB, hereafter)) was generated as a byproduct during the production of Tetrachlorophthalic anhydride (TCPA, hereafter) or some pigments derived from TCPA, MHLW, METI and MOE (Three Ministries, hereafter) amended the Implementation Guideline of the CSCL to clarify the criterion to decide whether a product contains a Class 1 Specific Chemical Substance or not.

The new paragraph 3-2 of the Guideline (“Implementation of the Law concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.”) is as follows.

3-2 When Class I Specified Chemical Substances are contained in other chemical substances as by-products in trace amounts, the by-products are not treated as Class I Specified Chemical Substances, if the by-products have no potential to be hazardous to human health and do not impair the life or growth of flora or fauna through environmental pollution, and the content of the by-products is reduced to the lowest possible technically and economically feasible level.

The full text of the Guideline is available from the METI website at:

[http://www.meti.go.jp/policy/chemical\\_management/CSCL/top.html](http://www.meti.go.jp/policy/chemical_management/CSCL/top.html).

#### 2) Plan to set up HCB upper limit standard values

(Press Release of MHLW, METI and MOE, October 15, 2007)

Three Ministries released a plan to apply the upper limit standard values of HCB content in TCPA and colorants derived from TCPA from October 2008. If HCB content exceeds the limit values (200ppm in TCPA, 10ppm in colorants from TCPA (except Pigment Yellow 138) and 10ppm in Pigment Green36), the product will be regarded as the Class I Chemical Substance.

### 1.1.3 Publication of Type II and Type III Monitored Chemical Substances

(Japanese Official Gazette, Extra Edition No.57, p.4 and 8, March 21, 2008)

Following substances were published as the Type II (from No.900 to 931) and/or Type III (from No.62 to 115) Monitored Chemical Substances under the CSCL.

Type II Monitored Chemical Substance means a chemical substance that is not highly bioaccumulative but is persistent and suspected to have long-term toxicity for humans.

Type III Monitored Chemical Substance means a chemical substance that is not highly bioaccumulative but is persistent and suspected to have ecotoxicity.

A person who manufactured or imported a Type II and/or Type III Monitored Chemical Substance (except any substance intended for testing and research purposes) shall each fiscal year notify the METI of the quantity of each Type II and/or Type III Monitored Chemical Substance manufactured or imported in the previous fiscal year, as well as other matters specified by the relevant METI ordinance.

| Type II Ser.No. | Type III Ser.No. | Gazette Ref. No. | Substance                                                                                                                                                       | CAS No.*                 |
|-----------------|------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 900             | 65               | 3-204            | 2'-Methylacetoacetanilide                                                                                                                                       | 93-68-5                  |
| 901             | 66               | 3-206            | 4-Isopropylaniline                                                                                                                                              | 99-88-7                  |
| 902             | 94               | 3-521/4-57       | Thymol                                                                                                                                                          | 89-83-8                  |
| 903             | #                | 3-675            | m-Aminophenol                                                                                                                                                   | 591-27-5                 |
| 904             | #                | 3-777            | p-Nitrophenol                                                                                                                                                   | 100-02-7                 |
| 905             | 70               | 3-779            | Sodium 4-nitrophenolate                                                                                                                                         | 824-78-2                 |
| 906             | 71               | 3-1092           | Benzenethiol                                                                                                                                                    | 108-98-5                 |
| 907             | 72               | 3-1124           | Diphenyldisulfane                                                                                                                                               | 882-33-7                 |
| 908             |                  | 3-1307           | Ditridecan-1-yl phthalate                                                                                                                                       | 119-06-2                 |
| 909             |                  | 3-2190/9-1870    | 1,3-Di-2-tolylguanidine                                                                                                                                         | 97-39-2                  |
| 910             |                  | 3-2520           | 2-Ethylhexan-1-yl diphenyl phosphate                                                                                                                            | 1241-94-7                |
| 911             | 74               | 4-15             | 4-Ethylbiphenyl                                                                                                                                                 | 5707-44-8                |
| 912             | 80               | 5-242            | 1,3-Benzothiazole-2-thiol                                                                                                                                       | 149-30-4                 |
| 913             |                  | 5-776            | 2,2,6,6-Tetramethylpiperidin-4-ol                                                                                                                               | 2403-88-5                |
| 914             |                  | 5-860            | 4-Ethylmorpholine                                                                                                                                               | 100-74-3                 |
| 915             |                  | 5-1028           | 6-Phenyl-1,3,5-triazine-2,4-diamine                                                                                                                             | 91-76-9                  |
| 916             |                  | 7-1279/7-1283    | Polycondensate of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (Bisphenol A type epoxy resin) (liquid)                                             | 25068-38-6               |
| 917             |                  | 3-540/4-57/9-899 | 2,3,6-Trimethylphenol                                                                                                                                           | 2416-94-6                |
| 918             |                  | 1-1224           | Caesium hydroxide                                                                                                                                               | 21351-79-1               |
| 919             |                  | 2-1195           | Ammonium perfluorooctanoate (Perfluorooctanoic acid ammonium salt)                                                                                              | 3825-26-1                |
| 920             | 85               | 3-74             | 1,2,3-Trichlorobenzene                                                                                                                                          | 87-61-6                  |
| 921             |                  | 3-86             | (Trifluoromethyl)benzene                                                                                                                                        | 98-08-8                  |
| 922             | #                | 3-503            | Nonylphenol                                                                                                                                                     | 25154-52-3               |
| 923             |                  | 3-540            | 2-tert-Butyl-4,6-dimethylphenol                                                                                                                                 | 1879-09-0                |
| 924             | 103              | 3-969            | 2,3,4,6-Tetrachlorophenol                                                                                                                                       | 58-90-2                  |
| 925             |                  | 3-1118           | 2,2'-Di-tert-butyl-5,5'-dimethyl-4,4'-sulfanediyl diphenol                                                                                                      | 96-69-5                  |
| 926             |                  | 3-1799           | Terephthalonitrile                                                                                                                                              | 623-26-7                 |
| 927             |                  | 3-2694           | Benzyl(trimethyl)ammonium chloride                                                                                                                              | 56-93-9                  |
| 928             |                  | 4-493            | 2-Aminonaphthalene-1-sulfonic acid                                                                                                                              | 81-16-3                  |
| 929             |                  | 4-820            | Biphenyl-4,4'-diol                                                                                                                                              | 92-88-6                  |
| 930             |                  | 5-472/5-474      | 1H-1,3-Benzimidazole-2-thiol                                                                                                                                    | 583-39-1<br>134469-07-1  |
| 931             |                  | 5-4870           | Hexasodium 2,2'-(ethene-1,2-diylbis[(3-sulfonato-4,1-phenylene)imino(6-phenoxy-1,3,5-triazine-4,2-diyl)imino])bis(benzene-1,4-disulfonate) (CI Fluorescent-271) | 41267-43-0<br>72413-95-7 |
| 932             |                  | 9-810            | Thiophene                                                                                                                                                       | 110-02-1                 |
|                 | 62               | 3-14             | Divinylbenzene                                                                                                                                                  | 1321-74-0                |
| #               | 63               | 1-283            | Disodium dichromate                                                                                                                                             | 10588-01-9               |
| #               | 64               | 3-185            | o-Phenylenediamine                                                                                                                                              | 95-54-5                  |
| #               | 67               | 3-363            | p-(Phenylazo)aniline                                                                                                                                            | 60-09-3                  |

| Type II Ser.No. | Type III Ser.No. | Gazette Ref. No. | Substance                                                                         | CAS No.*   |
|-----------------|------------------|------------------|-----------------------------------------------------------------------------------|------------|
|                 | 68               | 3-449            | 1-(Chloromethyl)-4-nitrobenzene                                                   | 100-14-1   |
| #               | 69               | 3-454            | 1-Chloro-2,4-dinitrobenzene                                                       | 97-00-7    |
|                 | 73               | 3-2756           | 1,2-Bis(2-chlorophenyl)hydrazine                                                  | 782-74-1   |
|                 | 75               | 4-80             | 1-Methylnaphthalene                                                               | 90-12-0    |
| #               | 76               | 4-95             | 4,4'-Diamino-3,3'-dichlorodiphenylmethane<br>(4,4'-Methylenebis(2-chloroaniline)) | 101-14-4   |
|                 | 77               | 4-316            | 1-Chloronaphthalene                                                               | 90-13-1    |
|                 | 78               | 4-581            | 3a,4,7,7a-Tetrahydro-1H-indene                                                    | 3048-65-5  |
| #               | 79               | 4-602            | 5-Ethylidenebicyclo[2.2.1]hept-2-ene                                              | 16219-75-3 |
|                 | 81               | 9-381/9-922      | 5-Chloro-2-(2,4-dichlorophenoxy)phenol (Triclosan)                                | 3380-34-5  |
|                 | 82               | 2-379            | 1,1,1,2-Tetrachloro-3-(2,3,3,3-tetrachloropropoxy)propane                         | 127-90-2   |
|                 | 83               | 3-13/3-60        | 1,4-Diethylbenzene                                                                | 105-05-5   |
|                 | 84               | 3-41             | 1,3-Dichlorobenzene                                                               | 541-73-1   |
| #               | 86               | 3-118            | N-ethylaniline                                                                    | 103-69-5   |
| #               | 87               | 3-129            | 3,5-Dimethylaniline                                                               | 108-69-0   |
| #               | 88               | 3-185            | m-Phenylenediamine                                                                | 108-45-2   |
|                 | 89               | 3-261            | 2,4-Dichloroaniline                                                               | 554-00-7   |
|                 | 90               | 3-261            | 2,5-Dichloroaniline                                                               | 95-82-9    |
| #               | 91               | 3-455            | 1,2-Dichloro-4-nitrobenzene                                                       | 99-54-7    |
|                 | 92               | 3-503            | 4-sec-Butylphenol                                                                 | 99-71-8    |
|                 | 93               | 3-521            | 2-tert-Butyl-4-methylphenol                                                       | 2409-55-4  |
| #               | 95               | 3-521/3-526      | 2,4-Di-tert-butylphenol                                                           | 96-76-4    |
|                 | 96               | 3-521/3-526      | 2,6-Di-sec-butylphenol                                                            | 5510-99-6  |
|                 | 97               | 3-540            | 2,6-Di-tert-butyl-4-ethylphenol                                                   | 4130-42-1  |
|                 | 98               | 3-650            | Phenoxybenzene                                                                    | 101-84-8   |
|                 | 99               | 3-790            | 3-Methyl-4-nitrophenol                                                            | 2581-34-2  |
| #               | 100              | 3-828            | 2-(1-Methylpropyl)-4,6-dinitrophenol                                              | 88-85-7    |
|                 | 101              | 3-900            | 4-Chloro-2-methylphenol                                                           | 1570-64-5  |
|                 | 102              | 3-965/3-987      | 2-[(Dibromo(methyl)phenoxy)methyl]oxirane                                         | 30171-80-3 |
|                 | 104              | 3-2231           | Ethylcyclohexane                                                                  | 1678-91-7  |
| #               | 105              | 4-40             | 4,4'-Diaminodiphenylmethane (4,4'-Methylenedianiline)                             | 101-77-9   |
|                 | 106              | 4-122            | 4-(2-Phenylpropan-2-yl)phenol                                                     | 599-64-4   |
|                 | 107              | 4-130            | (2-Hydroxy-4-methoxyphenyl)(phenyl)methanone                                      | 131-57-7   |
| #               | 108              | 4-645            | Acenaphthene                                                                      | 83-32-9    |
| #               | 109              | 4-800            | 3,3'-Dichlorobenzidine                                                            | 91-94-1    |
|                 | 110              | 4-852/4-854      | 4-Methyl-2,4-diphenylpent-1-ene                                                   | 6362-80-7  |
|                 | 111              | 4-961            | 1-Isopropyl-naphthalene and/or 2-isopropyl-naphthalene                            | 29253-36-9 |
|                 | 112              | 5-804            | Quinolin-8-ol                                                                     | 148-24-3   |
|                 | 113              | 5-908            | 10H-Phenothiazine                                                                 | 92-84-2    |
|                 | 114              | 5-3352           | Dibenzo[b,d]thiophene                                                             | 132-65-0   |
| #               | 115              | 9-882            | 3,3'-Dimethylbenzidine (o-Tolidine)                                               | 119-93-7   |

# : Substances have already been specified as the relevant Monitored Substances by the former notices.

\* : CAS numbers are assigned by JETOC for reference, they are not specified in the government notices.

#### 1.1.4 Correction of the name of Type II Monitored Chemical Substance

(Japanese Official Gazette, No.4692, p.32, October 22, 2007)

MHLW, METI and MOE announced correction of the name of the Type II Monitored Chemical Substance published on April 20, 2007. (InfoS. No.57, p.2)

| Type II Ser. No. | Gazette Ref. No. | Substance                                                                                                                                                                                                                                                                  |
|------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 894              | 5-6896           | Reaction product of acetone, dibutyl phosphonate, 2,2-dimethylpropane-1,3-diol, hydrogen peroxide and phosphorus trichloride, containing dibutyl {2-[(5,5-dimethyl-2-oxo-1,3,2λ <sup>5</sup> -dioxaphosphinan-2-yl)oxy]propan-2-yl} phosphonate as a main component (≥90%) |

1.1.5 Total Quantities of Production and Importation of the Type I, Type II and Type III Monitored Chemical Substances in Fiscal Year 2006

(Official Gazette, No.4681, p.6, October 4, 2007)

(Correction: Official Gazette, No.4752, p.32, January 23, 2008)

(Correction: Official Gazette, No.4765, p.32, February 12, 2008)

METI published the national sum of the quantities of the Type I, Type II and Type III Monitored Chemical Substances manufactured and/or imported during fiscal year 2006 under the CSCL as follows.

Type I Monitored Chemical Substances

| Ser. No. | Substance                                                       | CAS No.    | Total Quantities (tonnes) |
|----------|-----------------------------------------------------------------|------------|---------------------------|
| 3        | Cyclododeca-1,5,9-triene                                        | -          | 345                       |
| 5        | 1,2,5,6,9,10-Hexabromocyclododecane                             | 3194-55-6  | 3,937                     |
| 11       | Polybromobiphenyl (Br:2-5)                                      | -          | 1                         |
| 12       | Dipentene dimer or its hydrogenated derivatives                 | -          | 2                         |
| 14       | 2,6-Di-tert-butyl-4-phenylphenol                                | 2668-47-5  | 2                         |
| 15       | Diisopropyl-naphthalene                                         | 38640-62-9 | 774                       |
| 18       | 2,4-Di-tert-butyl-6-(5-chloro-2H-1,2,3-benzotriazol-2-yl)phenol | 3864-99-1  | 549                       |
| 19       | Chlorinated paraffin(C11, Cl=7-12)                              | -          | 10                        |
| 21       | Hydrogenated terphenyl                                          | 61788-32-7 | 373                       |
| 22       | Dibenzyltoluene                                                 | 26898-17-9 | 905                       |
| 24       | N,N-Dicyclohexyl-1,3-benzothiazole-2-sulfenamide                | 4979-32-2  | 3,383                     |
| 25       | 2-(2H-1,2,3-Benzotriazol-2-yl)-6-sec-butyl-4-tert-butylphenol   | 36437-37-3 | 1                         |
| 28       | 4,4'-methylene-bis(2,6-di-tert-butylphenol)                     | 118-82-1   | 187                       |

Type II Monitored Chemical Substances

| Ser. No. | Substance                                                                                                                                 | CAS No.     | Total Quantities (tonnes) |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|
| 3        | Chloroform                                                                                                                                | 67-66-3     | 56,470                    |
| 5        | 1,2-Dichloroethane                                                                                                                        | 107-06-2    | 461,911                   |
| 6        | 4,4'-Diamino-3,3'-dichlorodiphenylmethane<br>《4,4'-Methylene bis (2-chloroaniline)》                                                       | 101-14-4    | 2,578                     |
| 7        | 3,3'-Dichlorobenzidine                                                                                                                    | 91-94-1     | 6,594                     |
| 8        | 1,4-Dioxane                                                                                                                               | 123-91-1    | 6,862                     |
| 9        | 2,4-Dichloro-3-methylphenol                                                                                                               | 17788-00-0  | 118                       |
| 11       | 1,2-Dichloropropane                                                                                                                       | 78-87-5     | 2,260                     |
| 31       | Epoxydation product of addition polymer (polymerization degree 1-700) of 1,2-epoxy-4-vinylcyclohexane to 2,2-bis(hydroxymethyl)-1-butanol | -           | 191                       |
| 32       | Methyl 3,3'-dimethyl-4-pentenoate                                                                                                         | 63721-05-1  | 593                       |
| 37       | 4,4'-Diaminodiphenylmethane 《4,4'-Methylenedianiline》                                                                                     | 101-77-9    | 1,798                     |
| 38       | 2-Imidazoline-2-thiol 《2-Imidazolidinethione》                                                                                             | 96-45-7     | 370                       |
| 49       | 1,1'-[Methylenebis[4,1-phenyleneazo[1-[3-(dimethylamino)propyl]-6-hydroxy-4-methyl-2(1H)-pyridone-5,3-diyl]]]dipyridinium dichloride-(2H) | 105994-38-5 | 124                       |
| 56       | 2-Amino-4,6-dimethoxypyrimidin                                                                                                            | 36315-01-2  | 115                       |
| 57       | 2,2'-Azobis (2-methylbutylonitrile)                                                                                                       | 13472-08-7  | 658                       |
| 60       | Nitrogen trifluoride                                                                                                                      | 7783-54-2   | 2,667                     |
| 84       | 2-Ethylidene-1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalene                                                                     | 38233-76-0  | 1,591                     |
| 87       | 2,6-Dichlorobenzonitrile                                                                                                                  | 1194-65-6   | 102                       |

| Ser. No. | Substance                                                                                                                                                                                                                       | CAS No.     | Total Quantities (tonnes) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|
| 89       | Hexasodium 2-[4-[3-[2-(hydroxysulfonyloxy)ethylsulfonyl]anilino]-6-[8-hydroxy-7-[6-[2-(hydroxysulfonyloxy)ethylsulfonyl]-1-sulfonato-2-naphthylazo]-4,6-disulfonato-1-naphthylamino]-1,3,5-triazin-2-ylamino]benzenecarboxylate | 172724-10-6 | 128                       |
| 106      | 5-[N,N-Bis(2-acetoxyethyl)amino]-2-(2-bromo-4,6-dinitrophenylazo)-4-methoxyacetanilide                                                                                                                                          | 3618-72-2   | 108                       |
| 112      | 2-Chloronicotic acid                                                                                                                                                                                                            | 2942-59-8   | 192                       |
| 124      | 2,4-Diaminotoluene                                                                                                                                                                                                              | 95-80-7     | 65,826                    |
| 130      | 2-Methylthiopyrimidine-4,6-diol                                                                                                                                                                                                 | 1979-98-2   | 149                       |
| 145      | Octyl 3-[5-tert-butyl-3-(2'H-benzotriazol-2'-yl)-4-hydroxyphenyl]propionate                                                                                                                                                     | 84268-23-5  | 135                       |
| 149      | 1,4-Dithiane-2, 5-di(methanethiol)                                                                                                                                                                                              | 136122-15-1 | 247                       |
| 150      | tert-Buthyl p-vinylphenyl ether                                                                                                                                                                                                 | 95418-58-9  | 248                       |
| 160      | 1,2-Diphenoxyethane                                                                                                                                                                                                             | 104-66-5    | 360                       |
| 177      | 6-Methylheptyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate                                                                                                                                                                 | 146598-26-7 | 2,654                     |
| 188      | 4-Hydroxy-2,2,6,6-tetramethylpiperidine-N-oxyl                                                                                                                                                                                  | 2226-96-2   | 160                       |
| 198      | 4,4'-(3,3,5-Trimethylcyclohexylidene)diphenol                                                                                                                                                                                   | 129188-99-4 | 1,261                     |
| 215      | N,N-Dibenzylethylenediamine                                                                                                                                                                                                     | 14165-27-6  | 100                       |
| 235      | 6-Chloro-3-pyridylmethylaniline                                                                                                                                                                                                 | 97004-04-1  | 325                       |
| 252      | (Methoxymethyl)triphenylphosphonium chloride                                                                                                                                                                                    | 4009-98-7   | 118                       |
| 253      | Cobalt lithium dioxide                                                                                                                                                                                                          | 12190-79-3  | 12,604                    |
| 261      | Pyridine-triphenylborane(1/1)                                                                                                                                                                                                   | 971-66-4    | 458                       |
| 262      | Mixture of bicyclo[2.2.1]heptane-2,5(or 2,6)-diyldicyanide                                                                                                                                                                      | -           | 1,023                     |
| 267      | Bis(2-sulfidepyridine-1-olate) copper                                                                                                                                                                                           | 14915-37-8  | 204                       |
| 273      | 4,4'-(9-Fluorenylidene)bis[2-(phenoxy)ethanol]                                                                                                                                                                                  | 117344-32-8 | 142                       |
| 279      | Reaction product of copolymer of acrylic acid·cyclohexyl methacrylate·ethylacrylate·methylpoly(n=4~13)(oxyethyl) methacrylate, naphthenic acid and copper salt (organic acid, inorganic acid)                                   | -           | 372                       |
| 297      | Reaction product of pentaerythritol and 3-chloro-1-propene. Its main component is 3-allyloxy-2,2-bis(allyloxymethyl)propanol                                                                                                    | -           | 672                       |
| 313      | 2-(4-Methylphenyl)benzenecarbonitrile                                                                                                                                                                                           | 114772-53-1 | 694                       |
| 314      | 2,3-Dihydrothieno[3,4-b][1,4]dioxin                                                                                                                                                                                             | 126213-50-1 | 172                       |
| 318      | Octadecylamine(N-B)triphenylborane                                                                                                                                                                                              | 107065-10-1 | 39                        |
| 325      | 1,4,4a,9a-Tetrahydro-1,4-methanofluorene                                                                                                                                                                                        | 6143-33-5   | 3,195                     |
| 326      | Reaction products of 1-chloro-2,3-epoxypropane, 2-mercaptoethanol, sodium sulfide and thiourea, which are composed of mixture of dominant three isomers; 4,7(5,7 or 4,8)-bis(mercaptomethyl)-3,6,9-trithiaundecane-1,11-dithiol | -           | 288                       |
| 338      | 4'-(Bromomethyl)biphenyl-2-carbonitrile                                                                                                                                                                                         | 114772-54-2 | 258                       |
| 347      | 4,4'-Bis(methoxymethyl)biphenyl                                                                                                                                                                                                 | 3753-18-2   | 180                       |
| 356      | Ethyl 3-methyl-4-methylthiophenyl N-isopropylphosphoramidate                                                                                                                                                                    | 22224-92-6  | 787                       |
| 358      | 1,1'-Thiobis(2,3-epithiopropene)                                                                                                                                                                                                | 188829-97-2 | 186                       |
| 361      | Polycondensate of 4,4'-bis(methoxymethyl)biphenyl/phenol                                                                                                                                                                        | -           | 1,239                     |
| 366      | Carbon disulfide                                                                                                                                                                                                                | 75-15-0     | 33,186                    |
| 367      | Hydrazine                                                                                                                                                                                                                       | 302-01-2    | 11,167                    |
| 368      | 1,3-Butadiene                                                                                                                                                                                                                   | 106-99-0    | 1,311,293                 |
| 369      | Isoprene                                                                                                                                                                                                                        | 78-79-5     | 147,957                   |
| 370      | Chloromethane 《Methyl chloride》                                                                                                                                                                                                 | 74-87-3     | 22,875                    |
| 371      | Dichloromethane 《Methylene chloride》                                                                                                                                                                                            | 75-09-2     | 64,620                    |
| 372      | Bromomethane 《Methylene bromide》                                                                                                                                                                                                | 74-83-9     | 2,195                     |
| 374      | Chloroethane                                                                                                                                                                                                                    | 75-00-3     | 2,782                     |
| 377      | Chloroethene 《Vinyl chloride》                                                                                                                                                                                                   | 75-01-4     | 2,340,318                 |
| 378      | 1,1-Dichloroethene 《Vinylidene chloride》                                                                                                                                                                                        | 75-35-4     | 3,230                     |
| 380      | trans-1,2-Dichloroethylene                                                                                                                                                                                                      | 156-60-5    | 116                       |
| 381      | 1,3-Dichloropropene 《D-D》                                                                                                                                                                                                       | 542-75-6    | 10,963                    |
| 382      | N-(2-Aminoethyl)-1,2-ethanediamine 《Diethylenetriamine》                                                                                                                                                                         | 111-40-0    | 13,087                    |
| 384      | tert-Butyl hydroperoxide                                                                                                                                                                                                        | 75-91-2     | 5,687                     |
| 385      | 1-Allyloxy-2,3-epoxypropane                                                                                                                                                                                                     | 106-92-3    | 6,973                     |

| Ser. No. | Substance                                                                                                                                                                                               | CAS No.     | Total Quantities (tonnes) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|
| 387      | N,N-Dimethylformamide                                                                                                                                                                                   | 68-12-2     | 51,940                    |
| 388      | Ethylenediaminetetraacetic acid                                                                                                                                                                         | 60-00-4     | 2,726                     |
| 389      | Thiourea                                                                                                                                                                                                | 62-56-6     | 4,543                     |
| 390      | Tetramethylthiuram disulfide 《Thiuram or Thiram》                                                                                                                                                        | 137-26-8    | 1,075                     |
| 391      | Zinc bis(dimethyldithiocarbamate) 《Ziram》                                                                                                                                                               | 137-30-4    | 184                       |
| 392      | Tris(2-chloroethyl) phosphate                                                                                                                                                                           | 115-96-8    | 239                       |
| 395      | Tetramethyl orthosilicate 《Tetramethoxysilane》                                                                                                                                                          | 681-84-5    | 944                       |
| 397      | Dimethyl 2,2-dichlorovinyl phosphate 《Dichlorvos or DDVP》                                                                                                                                               | 62-73-7     | 198                       |
| 398      | o-Dichlorobenzene                                                                                                                                                                                       | 95-50-1     | 8,886                     |
| 401      | m-Phenylenediamine                                                                                                                                                                                      | 108-45-2    | 1,296                     |
| 402      | o-Toluidine                                                                                                                                                                                             | 95-53-4     | 1,587                     |
| 403      | o-Chloroaniline                                                                                                                                                                                         | 95-51-2     | 1,398                     |
| 409      | Nitrobenzene                                                                                                                                                                                            | 98-95-3     | 2,482                     |
| 410      | p-Chloronitrobenzene                                                                                                                                                                                    | 100-00-5    | 3,141                     |
| 413      | 1-Chloro-2,4-dinitrobenzene                                                                                                                                                                             | 97-00-7     | 303                       |
| 415      | 1,4-Dichloro-2-nitrobenzene                                                                                                                                                                             | 89-61-2     | 220                       |
| 421      | 3-(3,4-Dichlorophenyl)-1,1-dimethylurea 《Diuron or DCMU》                                                                                                                                                | 330-54-1    | 448                       |
| 423      | 2-sec-Butylphenyl N-methylcarbamate 《Fenobucarb or BPMC》                                                                                                                                                | 3766-81-2   | 2,288                     |
| 425      | 4-Vinyl-1-cyclohexene                                                                                                                                                                                   | 100-40-3    | 422                       |
| 427      | O,O-Dimethyl-O-(3-methyl-4-nitrophenyl) phosphorothioate 《Fenitrothion or MEP》                                                                                                                          | 122-14-5    | 2,778                     |
| 429      | Decabromodiphenyl ether                                                                                                                                                                                 | 1163-19-5   | 1,954                     |
| 435      | 2-Vinylpyridine                                                                                                                                                                                         | 100-69-6    | 830                       |
| 438      | Piperazine                                                                                                                                                                                              | 110-85-0    | 2,793                     |
| 439      | 2,4,6-Trichloro-1,3,5-triazine                                                                                                                                                                          | 108-77-0    | 579                       |
| 444      | 2,3-Dihydro-2,2-dimethyl-7-benzo[b]furanyl N-methylcarbamate                                                                                                                                            | 1563-66-2   | 140                       |
| 445      | 3,3'-Dimethylbenzidine                                                                                                                                                                                  | 119-93-7    | 715                       |
| 449      | 2-Methyloctane-1,8-diylidiamine                                                                                                                                                                         | 148528-05-6 | 527                       |
| 489      | Methyl 4-tert-butylbenzoate                                                                                                                                                                             | 26537-19-9  | 857                       |
| 492      | Reaction product of potassium acrylate with 1-perfluoro [n-alkyl (C=6,8,10,12,14,16 and 18)]-2-iodoethane, it consists predominantly of 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluorodecyl acrylate | -           | 2,539                     |
| 512      | Methyl 4-butyramido-3-methyl-5-nitrobenzoate                                                                                                                                                            | 152628-01-8 | 117                       |
| 520      | 2-[(2-Amino-6-oxo-1,6-dihydro-9H-purin-9-yl)methoxy]ethyl N-[(benzyloxy)carbonyl]-L-valinate                                                                                                            | 124832-31-1 | 221                       |
| 523      | Zinc salt of reaction product of styrene with 2-hydroxybenzoic acid, it consists predominantly of zinc bis [3,5-bis (1-phenylethyl)-2-hydroxybenzoate                                                   | -           | 206                       |
| 526      | Reaction product of methylcyclopentadiene, cyclopentadiene and dimethylcyclopentadiene, it consists predominantly of dimethyltricyclo [5.2.1.0 <sup>2,6</sup> ] deca-4,8-diene                          | -           | 348                       |
| 531      | N'-(1,3-Dimethylbutylidene)-3-hydroxy-2-naphthohydrazide                                                                                                                                                | 214417-91-1 | 988                       |
| 586      | 4-{1-[n-Alkyl(C=1-6)]-n-alkyl(C=6-12)}(total carbon number is 10-13)}benzenesulfonyl azide                                                                                                              | -           | 111                       |
| 589      | Polycondensate of 10H-9-oxa-10.lambda.5-phosphaphenanthren-10-one/1,4-naphthoquinone/(polycondensate of phenol and formaldehyde modified by glycidyl etherification with 1-chloro-2,3-epoxypropane)     | -           | 3,569                     |
| 603      | [(2-Chloro-1,3-thiazol-5-yl)methyl]ammonium chloride                                                                                                                                                    | 153471-67-1 | 333                       |
| 631      | Reaction product of 2-aminoethanol, cyclohex-1-ene-1,2-dicarboxylic anhydride and acrylic acid, it consists predominantly of 2-(cyclohex-1-ene-1,2-dicarboximido)ethyl acrylate                         | -           | 239                       |
| 632      | 4-(4-tert-Butoxyphenyl) ethanol                                                                                                                                                                         | 123195-72-2 | 273                       |
| 646      | N-[2-(Acryloyloxy)ethyl]-N-benzyl-N,N-dimethylammonium chloride                                                                                                                                         | 46830-22-2  | 717                       |
| 660      | (E)-1-(2-Chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine                                                                                                                                       | 210880-92-5 | 125                       |
| 679      | Butan-2-one oxime                                                                                                                                                                                       | 96-29-7     | 5,771                     |
| 680      | tert-Butyl methacrylate                                                                                                                                                                                 | 585-07-9    | 2,075                     |

| Ser. No. | Substance                                                                                                                                                                                                                                            | CAS No.    | Total Quantities (tonnes) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|
| 689      | 1,3-Diphenylguanidine                                                                                                                                                                                                                                | 102-06-7   | 2,669                     |
| 691      | Isophthalonitrile                                                                                                                                                                                                                                    | 626-17-5   | 2,926                     |
| 692      | 4,4'-Sulfonyldiphenol                                                                                                                                                                                                                                | 80-09-1    | 4,247                     |
| 694      | 6,6'-Di-tert-butyl-4,4'-dimethyl-2,2'-methylenediphenol                                                                                                                                                                                              | 119-47-1   | 1,893                     |
| 698      | 3-Cyanopyridine                                                                                                                                                                                                                                      | 100-54-9   | 185                       |
| 699      | 1-Bromo-3-chloropropane                                                                                                                                                                                                                              | 109-70-6   | 501                       |
| 701      | 2,2'-Dimethyl-2,2'-diazenediylbis(propanenitrile) «2,2'-Azobisisobutyronitrile»                                                                                                                                                                      | 78-67-1    | 2,647                     |
| 702      | Trimethyl phosphate                                                                                                                                                                                                                                  | 512-56-1   | 551                       |
| 703      | 2-Methylpropan-2-ol «tert-Butylalcohol»                                                                                                                                                                                                              | 75-65-0    | 158,470                   |
| 704      | 2,4-Dichlorotoluene                                                                                                                                                                                                                                  | 95-73-8    | 887                       |
| 706      | m-Toluidine                                                                                                                                                                                                                                          | 108-44-1   | 209                       |
| 709      | 2,4-Dinitrophenol                                                                                                                                                                                                                                    | 51-28-5    | 828                       |
| 710      | 5-Ethylidenebicyclo[2.2.1]hept-2-ene                                                                                                                                                                                                                 | 62181-74-2 | 15,979                    |
| 711      | 1-Amino-9,10-anthraquinone                                                                                                                                                                                                                           | 82-45-1    | 462                       |
| 728      | Copolymer of ethene, vinyl acetate, vinyl 2-ethylhexanoate                                                                                                                                                                                           | -          | 407                       |
| 730      | Dipotassium piperazine-1,4-bis(carbodithioate)                                                                                                                                                                                                       | -          | 10,304                    |
| 740      | Potassium piperazine-1-carbodithioate                                                                                                                                                                                                                | -          | 130                       |
| 754      | Butyl 3-[3,5-bis(tert-butyl)-4-hydroxyphenyl]propanoate                                                                                                                                                                                              | 52449-44-2 | 370                       |
| 792      | 2-(Diethylamino)ethanol                                                                                                                                                                                                                              | 100-37-8   | 553                       |
| 794      | p-Dichlorobenzene                                                                                                                                                                                                                                    | 106-46-7   | 41,569                    |
| 798      | Trichloronitromethane «Chloropicrin»                                                                                                                                                                                                                 | 76-06-2    | 2,754                     |
| 799      | 1,3,5-Tris(2,3-epoxypropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione                                                                                                                                                                                    | 2451-62-9  | 3,522                     |
| 801      | p-Toluidine                                                                                                                                                                                                                                          | 106-49-0   | 2,103                     |
| 802      | Nitrioltriacetate                                                                                                                                                                                                                                    | 139-13-9   | 131                       |
| 803      | Picric acid                                                                                                                                                                                                                                          | 88-89-1    | 491                       |
| 804      | o-Phenylenediamine                                                                                                                                                                                                                                   | 95-54-5    | 1,605                     |
| 807      | 2-(1-Methylpropyl)-4,6-dinitrophenol                                                                                                                                                                                                                 | 88-85-7    | 827                       |
| 823      | Lithium bromide                                                                                                                                                                                                                                      | 7550-35-8  | 683                       |
| 824      | Disodium dichromate                                                                                                                                                                                                                                  | 10588-01-9 | 434                       |
| 826      | 2-(1-Methylethoxy)ethanol                                                                                                                                                                                                                            | 109-59-1   | 434                       |
| 828      | 4-tert-Butylphenol                                                                                                                                                                                                                                   | 98-54-4    | 22,354                    |
| 858      | Reaction products of [copolymer of acrylic acid/cyclohexyl acrylate/ethyl acrylate, naphthenic acid and zinc salt(organic or inorganic acid)](insoluble in water, and containing 1% or less of component having less than 1,000 of molecular weight) | -          | 170                       |
| 859      | Addition products of [ethylene oxide(m=0-20) and propylene oxide(n=0-20, 1=<m+n=<20)                                                                                                                                                                 | -          | 1,733                     |
| 865      | Reaction product of [aqueous solution of sodium hypochlorite and [reaction product of aqueous solution of sodium hydroxide and sulfamic acid]] consisting dominantly sodium N-chlorosulfamate(less than 35%)                                         | -          | 344                       |
| 866      | Cadmium nitrate                                                                                                                                                                                                                                      | 10325-94-7 | 2,962                     |
| 868      | OO-tert-Butyl isopropyl peroxy carbonate                                                                                                                                                                                                             | 2372-21-6  | 404                       |
| 869      | 2-sec-Butylphenol                                                                                                                                                                                                                                    | 89-72-5    | 546                       |
| 870      | 2-tert-Butyl-5-methylphenol                                                                                                                                                                                                                          | 88-60-8    | 1,070                     |
| 871      | 2,4-Di-tert-butylphenol                                                                                                                                                                                                                              | 96-76-4    | 4,635                     |
| 873      | 2-Chlorophenol                                                                                                                                                                                                                                       | 95-57-8    | 161                       |
| 874      | 4-Chlorophenol                                                                                                                                                                                                                                       | 106-48-9   | 594                       |
| 875      | Bis(1-methyl-1-phenylethyl) peroxide                                                                                                                                                                                                                 | 80-43-3    | 1,857                     |
| 876      | N,N-Diethyl-3-methylbenzamide                                                                                                                                                                                                                        | 134-62-3   | 266                       |
| 879      | 1,4-Dimethyl-2-(1-phenylethyl) benzene,                                                                                                                                                                                                              | 6165-51-1  | 724                       |
| 881      | 1,3,5-Triallyl-1,3,5-triazinane-2,4,6-trione                                                                                                                                                                                                         | 1025-15-6  | 337                       |

Type III Monitored Chemical Substances

| Ser. No. | Substance                                                                                            | CAS No.                               | Total Quantities (tonnes) |
|----------|------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------|
| 1        | Cadmium nitrate                                                                                      | 10325-94-7                            | 2,962                     |
| 2        | Dimethyldisulfane                                                                                    | 624-92-0                              | 176                       |
| 3        | 2-sec-Butylphenol                                                                                    | 89-72-5                               | 546                       |
| 4        | 2-tert-Butyl-5-methylphenol                                                                          | 88-60-8                               | 1,070                     |
| 5        | 4-Chlorophenol                                                                                       | 106-48-9                              | 594                       |
| 7        | Bis(1-methyl-1-phenylethyl) peroxide                                                                 | 80-43-3                               | 1,857                     |
| 8        | Cyclohexene                                                                                          | 110-83-8                              | 141,600                   |
| 9        | 1,4-Dimethyl-2-(1-phenylethyl)benzene                                                                | 6165-51-1                             | 724                       |
| 10       | 2,2',6,6'-Tetrabromo-4,4'-(propane-2,2-diyl)diphenol                                                 | 79-94-7                               | 30,180                    |
| 11       | m-Aminophenol                                                                                        | 591-27-5                              | 640                       |
| 12       | 4,4'-(Propane-2,2-diyl)diphenol 《Bisphenol A》                                                        | 80-05-7                               | 590,283                   |
| 15       | 2,6-Dimethylphenol 《2,6-Xylenol》                                                                     | 576-26-1                              | 11,789                    |
| 16       | o-Chloroaniline                                                                                      | 95-51-2                               | 1,398                     |
| 20       | o-Chlorotoluene                                                                                      | 95-49-8                               | 3,331                     |
| 21       | Chlorobenzene                                                                                        | 108-90-7                              | 8,246                     |
| 23       | o-Dichlorobenzene                                                                                    | 95-50-1                               | 8,886                     |
| 24       | p-Dichlorobenzene                                                                                    | 106-46-7                              | 41,569                    |
| 26       | 2,4-Dinitrophenol                                                                                    | 51-28-5                               | 828                       |
| 27       | Diphenylamine                                                                                        | 122-39-4                              | 10,483                    |
| 34       | o-Toluidine                                                                                          | 95-53-4                               | 1,587                     |
| 35       | p-Toluidine                                                                                          | 106-49-0                              | 2,103                     |
| 38       | Nonylphenol                                                                                          | -                                     | 9,480                     |
| 39       | Hydrazine                                                                                            | 302-01-2                              | 11,617                    |
| 40       | 3-Phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethyl cyclopropanecarboxylate 《Permethrine》             | 52645-53-1                            | 420                       |
| 42       | α-[(1,1,3,3-Tetramethylbutyl)phenyl]-ω-hydroxypoly(oxyethylene) 《Poly(oxyethylene)octylphenyl ether》 | 9002-93-1<br>9036-19-5                | 1,238                     |
| 43       | α-(Nonylphenyl)-ω-hydroxypoly(oxyethylene) 《Poly(oxyethylene)nonylphenyl ether》                      | 9016-45-9<br>26027-38-3<br>51938-25-1 | 6,462                     |
| 44       | 2,3-Dihydro-2,2-dimethyl-7-benzo[b]furanyl N-methylcarbamate 《Carbofuran》                            | 1563-66-2                             | 140                       |
| 45       | 2-sec-Butylphenyl N-methylcarbamate 《Fenobucarb or BPMC》                                             | 3766-81-2                             | 2,288                     |
| 46       | Isopropenylbenzene 《α-Methylstyrene》                                                                 | 98-83-9                               | 43,725                    |
| 47       | Dimethyl 2,2-dichlorovinyl phosphate 《Dichlorvos or DDVP》                                            | 62-73-7                               | 198                       |

1.1.6 Results of biodegradation and bioaccumulation tests of existing chemical substances

(METI Official Bulletin No.16347, p.12, October 10, 2007)

METI published test results of biodegradation and bioaccumulation of existing chemical substances. Judgement was made referring to “A guideline for the judgment whether a substance falls into the Monitored chemical substance category, July 21, 2006 (see p.18 of Information Sheet No.57).

1. Substances considered not to be poorly biodegradable (3 substances)

| Gazette Reference No. | CAS No.  | Chemical name 《Other name》                         |
|-----------------------|----------|----------------------------------------------------|
| 3-1642                | 92-15-9  | 2'-Methoxy acetoacetanilide 《o-Acetoacetanilide》   |
| 4-593                 | 80-56-8  | 2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene 《α-pinene》 |
| 5-130                 | 120-72-9 | 1H-Indole                                          |

2. Substances considered to be poorly biodegradable, but not to be highly bioaccumulative (15 substances)

| Gazette Reference No. | CAS No.    | Chemical name 《Other name》                                                                                        |
|-----------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| 2-2012                | 14802-03-0 | 2-Ethylhexyl=H=(2-ethylhexyl)phosphonate<br>《(2-Ethylhexyl)phosphonic acid mono(2-ethylhexyl) ester》              |
| 2-1182/ 2-2659        | 2058-94-8  | Perfluoroundecanoic acid                                                                                          |
| 2-2528                | 107-71-1   | tert-Butyl peroxyacetate                                                                                          |
| 2-2658                | 16517-11-6 | Perfluorooctadecanoic acid                                                                                        |
| 3-46                  | 1592-20-7  | 4-Chloromethyl styrene 《4-Vinylbenzyl chloride》                                                                   |
| 3-526                 | 1323-65-5  | Di-nonylphenol                                                                                                    |
| 3-1100                | 3120-74-9  | 3-Methyl-4-(methylsulfanyl) phenol 《3-Methyl-4-(methylthio) phenol》                                               |
| 4-212/ 4-218          | 21850-44-2 | 2,2-Bis[3,5-dibromo-4-(2,3-dibromopropoxy)phenyl] propane<br>《Tetrabromobisphenol A bis(2,3-dibromopropyl ether)》 |
| 5-8                   | 7417-99-4  | N,N'-(metylendi-4,1-phenylen)bis(aziridin-1-carboxamid)                                                           |
| 5-382                 | 693-98-1   | 2-Methyl-1H-imidazole                                                                                             |
| 5-777                 | 826-36-8   | 2,2,6,6-Tetramethylpiperidin-4-on<br>《2,2,6,6-Tetramethyl-4-piperidone》                                           |
| 5-961                 | 140-31-8   | 2-(Piperazin-1-yl)ethylamine<br>《1-(2-Aminoethyl)piperazine》                                                      |
| 5-3688                | 2402-78-0  | 2,6-Dichloropyridine                                                                                              |
| 9-764/ 9-2030         | 18375-66-1 | N-Octadecyl-D-gluconamide                                                                                         |
| 9-2190                | 16935-34-5 | 5-Isopropylhydantoin                                                                                              |

3. Substances considered to be poorly biodegradable and highly bioaccumulative (12 substances)

| Gazette Reference No. | CAS No.     | Chemical name 《Other name》                                                                                |
|-----------------------|-------------|-----------------------------------------------------------------------------------------------------------|
| 2-2366                | 335-57-9    | Perfluoroheptane                                                                                          |
| 2-2366                | 307-34-6    | Perfluorootane                                                                                            |
| 2-2658/ 2-2659        | 307-55-1    | Perfluorododecanoic acid                                                                                  |
| 2-2658/ 2-2659        | 72629-94-8  | Perfluorotridecanoic acid                                                                                 |
| 2-2658                | 67905-19-5  | Perfluorohexadecanoic acid                                                                                |
| 2-2658                | 376-06-7    | Perfluorotetradecanoic acid                                                                               |
| 2-2658                | 141074-63-7 | Perfluoropentadecanoic acid                                                                               |
| 3-2835                | 52184-14-2  | 2,4-Di-tert-butyl-6-[(2-nitrophenyl)diazenyl]phenol<br>《2,4-bis(tert-butyl)-6-[(2-nitrophenyl)azo]phenol》 |
| 3-3247                | 306-98-9    | Perfluoro(1,2-dimethylcyclohexane)                                                                        |
| 4-39                  | 118-82-1    | 2,2',6,6'-Tetra-tert-butyl-4,4'-methylenediphenol                                                         |
| 5-71                  | 335-36-4    | 2,2,3,3,4,4,5-Heptafluoro-5-(perfluorobutyl)oxoran<br>《Perfluoro-2-butyltetrahydrofuran》                  |
| 5-71                  | 40464-54-8  | Heptafluoro(perfluorobutyl)oxoran                                                                         |

4. Substances considered to be poorly biodegradable (11 substances)

| Gazette Reference No. | CAS No.    | Chemical name 《Other name》                                                                                                                                                                                       |
|-----------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-61                  | 110-56-5   | 1,4-Dichlorobutane                                                                                                                                                                                               |
| 2-1848                | 64440-88-6 | $\mu$ -(N,N'-Ethylenedicarbamodithioato-1 $\kappa^2$ S:2 $\kappa^2$ S)bis[(N,N'-dimethylcarbamodithioato- $\kappa^2$ S)zinc(II) ]<br>《N,N'-ethylenebis(thiocarbamoylthiozinc) bis(N,N'-dimethyldithiocarbamate)》 |
| 3-134                 | 101-54-2   | N-Phenyl-1,4-phenylenediamine<br>《1,4-Benzenediamine, N-Phenyl》                                                                                                                                                  |
| 3-540                 | 17540-75-9 | 4-Sec-butyl-2,6-di-tert-butylphenol                                                                                                                                                                              |
| 4-44                  | 843-55-0   | 4,4'-Cyclohexane-1,1-diylidiphenol 《Bisphenol Z》                                                                                                                                                                 |
| 4-112                 | 28768-32-3 | N,N,N',N'-Tetrakis(oxiran-2-ylmethyl)-4,4'-methylenedianiline<br>《4,4'-Methylenebis (N,N-diglycidylaniline)》                                                                                                     |
| 4-1263                | 14233-37-5 | 1,4-Bis(isopropylamino)-9,10-anthraquinone                                                                                                                                                                       |

| Gazette Reference No. | CAS No.    | Chemical name 《Other name》                                                                           |
|-----------------------|------------|------------------------------------------------------------------------------------------------------|
| 5-3090                | 509-34-2   | 3',6'-Bis(N,N-diethylamino)-3H-spiro[isobenzofuran-1,9'-xanthene]-3-one 《Rhodamine B Base》           |
| 5-3790                | 382-28-5   | 2,2,3,3,5,5,6,6-Octafluoro-4-(trifluoromethyl)morpholine                                             |
| 5-3860                | 1919-48-8  | 2,4,6-Triphenoxy-1,3,5-triazine                                                                      |
| 9-1306                | 10453-86-8 | (5-Benzyl-3-furyl)methyl=2,2-dimethyl-3-(2-methylprop-1-en-1-yl)cyclopropanecarboxylate 《Resmethrin》 |

#### 1.1.7 Joint Committee to review CSCL launched

([http://www.meti.go.jp/policy/chemical\\_management/CSCL/top.html](http://www.meti.go.jp/policy/chemical_management/CSCL/top.html))

##### 1) The first meeting of the Joint Committee to review CSCL (January 31, 2008)

MHLW, METI and MOE held the first meeting of the Joint Committee to review of the CSCL on January 31, 2008 according to the prescription of the Supplementary Provisions. Article 3 of the Supplementary Provisions of the law stipulates that the government shall review the law considering the state of the enforcement of the law five years after the entry into force of the law.

The Joint Committee consist of members from various stakeholders such as industries, NPOs and scientists decided to form a working group to conduct intensive debate on the themes such as lifecycle management of chemical substances, effective measures for the risk assessment, hazard assessment of the notified new substances and ideal chemical control system in Japan.

##### 2) The first Joint Working Group meeting to review CSCL (February 19, 2008)

The first meeting of the Joint Working Group from MHLW, METI and MOE to review the CSCL was held on February 19, 2008. The theme of the first meeting was how to conduct chemical management throughout the whole lifecycle, and how to manage highly hazardous chemicals.

All the distributed documents are available in the following website (Japanese only):  
[http://www.meti.go.jp/committee/gizi\\_1/17.html](http://www.meti.go.jp/committee/gizi_1/17.html)

#### 1.1.8 New CSCL website

([http://www.meti.go.jp/policy/chemical\\_management/CSCL/top.html](http://www.meti.go.jp/policy/chemical_management/CSCL/top.html))

METI set up a new English website for the CSCL. The site features information on the new releases, and legal texts and guidelines of the CSCL. It also includes notification forms of the test results required to notify a new substance and links to the regulated substance lists.

Notification forms posted on the website are:

Blue Card (new chemical substance card);

Biodegradation test results;

Concentration test results;

1-octanol water partition coefficient measurement test results;

28-day repeat dose toxicity test results;

Reverse mutagenicity on bacteria test result;

Chromosome aberration test results;

Algae growth inhibition test results;

Daphnia acute immobilization test results and

Fish acute toxicity test results.

## 1.2 Industrial Safety and Health Law (ISHL)

### 1.2.1 New chemical substances found to be strongly mutagenic

(Labour Standards Bureau Notice, Kihatsu-No.0206002, February 6, 2008)

MHLW published lists of chemical substances found to be strongly mutagenic based on the results of reverse mutation tests and chromosome aberration tests conducted on the notified new chemical substances under the ISHL.

Employers are requested to take appropriate measures to handle these chemicals following the guideline for the protection of employees from the risks caused by chemical substances indicating positive results in mutagenicity tests.

#### Notified new chemical substances which showed strong mutagenicity

| Ser. No. | Substance                                                                                                                                                                                                                                         | Ref. No.    |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 14675    | Reaction product of acrylic acid and 2,2'-[4,4'-(ethane-1,1-diyl)bis(1,4-phenyleneoxymethylene)]bis(oxirane), containing 3-(4-{1-[4-(2,3-epoxypropoxy)phenyl]ethyl}phenoxy)-2-hydroxypropyl acrylate as a main component                          | 8-(4)-1534  |
| 14742    | 3-Ethyl-1,1,2-trimethyl-1H-benzo[e]indol-3-ium p-toluenesulfonate                                                                                                                                                                                 | 8-(1)-3109  |
| 14744    | Mixture of 1-ethyl-6-hydroxy-5-[(4-methoxy-2-nitrophenyl)diazenyl]-4-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile and 6-hydroxy-1-(3-isopropoxy)propyl-5-[(4-methoxy-2-nitrophenyl)diazenyl]-4-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile | 8-(1)-3110  |
| 14752    | Reaction product of 2,2'-[4,4'-oxybis(1,4-phenyleneoxymethylene)]bis(oxirane) and methacrylic acid, containing 3-[4-[4-(2,3-epoxypropoxy)phenoxy]phenoxy]-2-hydroxypropyl methacrylate as a main component                                        | 8-(4)-1537  |
| 14786    | 4-Methoxybenzyl 3-(3-chloroprop-1-en-1-yl)-8-oxo-7-(2-phenylacetyl-amino)-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate                                                                                                                       | 8-(7)-1498  |
| 14817    | 3,5-Dinitrobenzoyl chloride                                                                                                                                                                                                                       | 4-(7)-2175  |
| 14826    | trans-4,5-Difluoro-1,3-dioxolan-2-one                                                                                                                                                                                                             | 8-(5)-350   |
| 14869    | 4-(Naphthalen-2-yl)-1,3-thiazol-2-amine                                                                                                                                                                                                           | 8-(7)-1501  |
| 14870    | 4-(Naphthalen-2-yl)-1,3-thiazol-2-amine hydrobromide                                                                                                                                                                                              | 8-(7)-1502  |
| 14874    | 2-[(4-Nitrophenoxy)methyl]oxirane                                                                                                                                                                                                                 | 8-(4)-1548  |
| 14875    | (R)-(-)-2,3-Epoxypropyl 3-nitrobenzenesulfonate                                                                                                                                                                                                   | 8-(4)-1549  |
| 14879    | Reaction product of 1,1-bis[4-(2,3-epoxypropoxy)phenyl]ethane and methacrylic acid, containing 3-(4-{1-[4-(2,3-epoxypropoxy)phenyl]ethyl}phenoxy)-2-hydroxypropyl methacrylate as a main component                                                | 8-(4)-1550  |
| 14929    | 2-[2-(Propylsulfonyloxyimino)thiophen-3(2H)-ylidene]-2-(2-methylphenyl)acetone nitrile                                                                                                                                                            | 8-(6)-222   |
| 14986    | 4-Hydroxy-3-methoxybenzyl 8-methylnonanoate                                                                                                                                                                                                       | 4-(7)-2181  |
| 14991    | 3-Methoxypropyl 4-methylbenzenesulfonate                                                                                                                                                                                                          | 4-(8)-277   |
| 15078    | 3-(4-Isopropylphenyl)acryloyl chloride                                                                                                                                                                                                            | 4-(7)-2182  |
| 15086    | 1-[9-Ethyl-3-(1-naphthoyl)carbazol-6-yl]but-2-en-1-one                                                                                                                                                                                            | 8-(1)-3145  |
| 15198    | 2-Nitro-4-propanoylbenzoxirane                                                                                                                                                                                                                    | 4-(7)-2187  |
| 15249    | 3-Bromo-2-nitrothiophene                                                                                                                                                                                                                          | 8-(6)-229   |
| 15250    | 1-(4-Bromo-3-nitrophenyl)propan-1-one                                                                                                                                                                                                             | 4-(10)-1231 |
| 15254    | 5-Bromo-1,3-benzothiazole-2-thiol                                                                                                                                                                                                                 | 8-(7)-1518  |
| 15279    | (2,4-Difluorophenyl)(2-methyloxiran-2-yl)methyl methanesulfonate                                                                                                                                                                                  | 8-(4)-1575  |
| 15330    | 1-Acetylthiourea                                                                                                                                                                                                                                  | 8-(2)-2117  |
| 15375    | 9-Ethyl-6-(3-hydroxyamino-1-hydroxyiminobutyl)carbazol-3-yl naphthalen-1-yl ketone                                                                                                                                                                | 8-(1)-3168  |
| 15382    | Reaction product of 3,3'-(ethylenedioxy)bis(1,2-epoxypropane), 3-chloro-1,2-epoxypropane and piperazine                                                                                                                                           | 10-2023     |

| Ser. No. | Substance                                                                            | Ref. No.   |
|----------|--------------------------------------------------------------------------------------|------------|
| 15383    | 3-[2-(2-Ethoxybut-1-en-1-yl)-5,6-methylenedioxybenzothiazol-3-yl]propane-1-sulfonate | 8-(7)-1520 |
| 15410    | 6-Chloronaphthalene-2-sulfonic acid                                                  | 5-1372     |
| 15414    | 1-Chloromethyl-4-isopropoxybenzene                                                   | 4-(14)-374 |
| 15420    | 1-Chloromethyl-2,5-dichloro-4-ethoxybenzene                                          | 4-(14)-375 |
| 15516    | Naphtho[2,1-b]furan-1(2H)-one                                                        | 8-(4)-1593 |
| 15517    | Naphtho[2,1-b]furan-1(2H)-one O-acetyloxime                                          | 8-(4)-1594 |
| 15518    | Naphtho[2,1-b]furan-1(2H)-one oxime                                                  | 2-(6)-1713 |
| 15545    | Ethyl 2-hydroxy-3-[2-(2-methoxyethoxy)-5-nitropyridin-4-yl]propenoate                | 10-2039    |
| 15565    | 4-Propyl-1,3,2-dioxathiolane 2,2-dioxide                                             | 8-(8)-34   |
| 15568    | 3-Bromo-2,2-bis(bromomethyl)propanoic acid                                           | 2-(4)-1134 |
| 15571    | 1-Bromomethyl-4-iodobenzene                                                          | 4-(15)-217 |
| 15583    | Tricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-yloxymethyl methacrylate                    | 7-(2)-209  |

### 1.2.2 Publication of New Chemical Substances based on the ISHL (MHLW)

(Notice of MHLW, No.308 of 2007, Japanese Official Gazette, Extra Edition No.223, p.33, September 27, 2007) (Serial Numbers 15306-15607)

(Notice of MHLW, No.431 of 2007, Japanese Official Gazette, Extra Edition No.295, p.12, December 27, 2007) (Serial Numbers 15608-15946)

Following substances were published as New Chemical Substances under the ISHL.

| Ser. No. | Substance                                                                                                                                                                                                                                                          | Ref. No.   |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 15306    | Poly[(2-acrylamido-2-methylpropane-1-sulfonic acid)-co-(ethyl acrylate)-co-(butyl acrylate)-co-acrylonitrile-co-(2,3-epoxypropyl methacrylate)]                                                                                                                    | 9-1912     |
| 15307    | Copolymer of 2-acrylamido-2-methylpropanesulfonic acid, butyl acrylate, {ammonium salt of sulfonate of $\alpha$ -[2-(allyloxy)-1-(undecyloxymethyl)ethyl]- $\omega$ -hydroxypoly(oxyethylene)}, styrene, sodium 4-vinylbenzenesulfonate and methyl methacrylate    | 9-1913     |
| 15308    | Copolymer of sodium 2-acrylamido-2-methylpropanesulfonate, butyl acrylate, {ammonium salt of sulfonate of $\alpha$ -[2-(allyloxy)-1-(undecyloxymethyl)ethyl]- $\omega$ -hydroxypoly(oxyethylene)}, styrene, sodium 4-vinylbenzenesulfonate and methyl methacrylate | 9-1914     |
| 15309    | Poly[(isobutyl acrylate)-co-acrylonitrile-co-(2,3-epoxypropyl methacrylate)-co-(methyl methacrylate)]                                                                                                                                                              | 9-1915     |
| 15310    | Copolymer of 2-ethylhexyl acrylate, butyl acrylate, {ammonium salt of sulfonate of $\alpha$ -[2-(allyloxy)-1-(undecyloxymethyl)ethyl]- $\omega$ -hydroxypoly(oxyethylene)}, styrene, sodium 4-vinylbenzenesulfonate and methyl methacrylate                        | 9-1916     |
| 15311    | Mixture of poly[(2-ethylhexyl acrylate)-co-isopropenylbenzene-co-styrene-co-(methyl methacrylate)-co-(antimony pentoxide, tin (IV) oxide, $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(1-methylethylene)], 2-butoxyethanol and polyethylene                          | 12-940     |
| 15312    | Poly[(3,4-epoxycyclohexylmethyl acrylate)-co-poly[hexano-6-lactone-co-(2-hydroxyethyl acrylate)-co-(1,2,2,6,6-pentamethyl-4-piperidyl methacrylate)]                                                                                                               | 9-1917     |
| 15313    | Reaction product of 3,4-epoxycyclohexylmethyl acrylate and poly[(methacrylic acid)-co-(decyl(branched) methacrylate)-co-(methyl methacrylate)]                                                                                                                     | 9-1918     |
| 15314    | 3,4-Epoxytricyclo[5.2.1.0 <sup>2,6</sup> ]decyl acrylate                                                                                                                                                                                                           | 8-(4)-1577 |
| 15315    | Poly[(3,4-epoxytricyclo[5.2.1.0 <sup>2,6</sup> ]decyl acrylate)-co-N-cyclohexylmaleimide-co-(methacrylic acid)]                                                                                                                                                    | 9-1919     |
| 15316    | Poly[(octadecyl acrylate)-co-[3-(trimethoxysilyl)propyl acrylate]-co-(2-perfluoroalkyl(C=6,8,10,12,14)ethyl acrylate)-co-[ $\alpha$ -methylpoly(oxyethylene) acrylate]]                                                                                            | 9-1920     |
| 15317    | Poly[(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl acrylate)-co-(tert-butyl acrylate)]                                                                                                                                                                               | 7-(4)-1122 |

| Ser. No. | Substance                                                                                                                                                                                                                                                                                                                                                                                                       | Ref. No.   |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 15318    | Mixture of {reaction product of acrylic acid and [reaction product of 2,2-bis(hydroxymethyl)propanoic acid and (addition product of oxirane to pentaerythritol)], [reaction product of acrylic acid and (addition product of oxirane to pentaerythritol)] and (reaction product of acrylic acid and pentaerythritol)}                                                                                           | 7-(3)-607  |
| 15319    | Reaction product of acrylic acid and 3-(biphenyl-2-yloxy)-1,2-epoxypropane                                                                                                                                                                                                                                                                                                                                      | 7-(3)-608  |
| 15320    | Poly[(2-hydroxyethyl acrylate)-co-(tert-butyl acrylate)-co-4-isopropenylphenol-co-N-(4-hydroxyphenyl)methacrylamide-co-(bornan-2-yl methacrylate)]                                                                                                                                                                                                                                                              | 10-2013    |
| 15321    | 2-(Phenylsulfanyl)ethyl acrylate                                                                                                                                                                                                                                                                                                                                                                                | 9-1921     |
| 15322    | 2-Methyltricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-yl acrylate                                                                                                                                                                                                                                                                                                                                                    | 4-(7)-2191 |
| 15323    | Mixture of 2-[4-(1-methyl-1-phenylethyl)phenoxy]ethyl acrylate and 2-[2-[4-(1-methyl-1-phenylethyl)phenoxy]ethoxy]ethyl acrylate                                                                                                                                                                                                                                                                                | 7-(2)-204  |
| 15324    | Poly[(3-acryloylaminopropyl)dimethylammonium methanesulfonate]-co-N-(methoxymethyl)acrylamide-co-N-(methoxymethyl)methacrylamide}                                                                                                                                                                                                                                                                               | 9-1922     |
| 15325    | 4-[6-(6-acryloyloxyhexyloxy)naphthalene-2-carbonyloxy]-2-propylphenyl 6-(acryloyloxy)naphthalene-2-carboxylate                                                                                                                                                                                                                                                                                                  | 9-1923     |
| 15326    | 6-(6-Acryloyloxyhexyloxy)naphthalene-2-carboxylic acid                                                                                                                                                                                                                                                                                                                                                          | 5-1369     |
| 15327    | Poly[ $\alpha$ -acryloyl- $\omega$ -4-(1-methyl-1-phenylethyl)phenoxy]poly(oxyethylene)-co-(methacrylic acid)-co-(2-hydroxyethyl methacrylate)-co-(benzyl methacrylate)-co-(methyl methacrylate)]                                                                                                                                                                                                               | 5-1370     |
| 15328    | Reaction product of {product capped the both ends of poly[(adipic acid)-co-hexane-1,6-diol-co-(2-methylidenesuccinic acid)] by acrylic acid} and 9-oxa-10-phospha-9,10-dihydrophenanthren-10-one                                                                                                                                                                                                                | 9-1924     |
| 15329    | Reaction product of sodium nitrite, 4-amino-2,5-dichlorobenzenesulfonic acid, N,N-dibutyl-4-chloro-6-methylpyrimidin-2-ylamine and 2-phenylethylamine, containing disodium 4-[(2-dibutylamino-4-methyl-6-[2-(4-sulfophenyl)ethylamino]pyrimidin-5-yl]diazanyl]-2,5-dichlorobenzenesulfonate as a main component [JETOC Recommendation]<br>2-phenylethylamine $\rightarrow$ 4-(2-aminoethyl)benzenesulfonic acid | 10-2014    |
| 15330    | 1-Acetylthiourea                                                                                                                                                                                                                                                                                                                                                                                                | 8-(2)-2117 |
| 15331    | Mixture of benzyl 5-acetamido-3,5-deoxy- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosonate and benzyl 5-acetamido-3,5-dideoxy- $\beta$ -D-glycero-D-galacto-2-nonulopyranosonate                                                                                                                                                                                                                               | 2-(6)-1701 |
| 15332    | 5-Acetamido-4,7,8,9-tetra-O-acetyl-2-chloro-2,3,5-trideoxy- $\beta$ -D-glycero-D-galacto-2-nonulopyranosonic acid                                                                                                                                                                                                                                                                                               | 8-(4)-1578 |
| 15333    | Mixture of 5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-methyl- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosonic acid and 5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-methyl- $\beta$ -D-glycero-D-galacto-2-nonulopyranosonic acid                                                                                                                                                               | 8-(4)-1579 |
| 15334    | Mixture of benzyl 5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-methyl- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosonate and benzyl 5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-methyl- $\beta$ -D-glycero-D-galacto-2-nonulopyranosonate                                                                                                                                                         | 8-(4)-1580 |
| 15335    | Mixture of benzyl 5-acetamido-2,4,7,8,9-penta-O-acetyl-3,5-dideoxy- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosonate and benzyl 5-acetamido-2,4,7,8,9-penta-O-acetyl-3,5-dideoxy- $\beta$ -D-glycero-D-galacto-2-nonulopyranosonate                                                                                                                                                                           | 8-(4)-1581 |
| 15336    | Reaction product of acetaldehyde and 1-(2,6,6-trimethylcyclohex-3-en-1-yl)ethan-1-one                                                                                                                                                                                                                                                                                                                           | 8-(4)-1582 |
| 15337    | N-Acetoxy-N-{3-(acetoxyimino)-3-[9-ethyl-6-(1-naphthoyl)carbazol-3-yl]-1-methylpropyl}acetamide                                                                                                                                                                                                                                                                                                                 | 8-(1)-3164 |
| 15338    | N-Acetoxy-N-{3-(acetoxyimino)-3-[9-ethyl-6-(2-methylbenzoyl)carbazol-3-yl]-1-(4-isopropylphenyl)propyl}acetamide                                                                                                                                                                                                                                                                                                | 8-(1)-3165 |
| 15339    | 6-Anilino-1-benzoyl-3-methyl-3H-naphtho[1,2,3-de]quinoline-2,7-dione                                                                                                                                                                                                                                                                                                                                            | 8-(1)-3166 |
| 15340    | 1-Anilino-4-(methylamino)anthraquinone                                                                                                                                                                                                                                                                                                                                                                          | 6-328      |
| 15341    | 1-(Aminoxy)propan-2-ol hydrochloride                                                                                                                                                                                                                                                                                                                                                                            | 2-(8)-732  |
| 15342    | N-(4-[(2-Amino-4-oxo-3,4,5,6,7,8-hexahydropteridin-6-yl)methyl]amino)benzoyl)glutamic acid                                                                                                                                                                                                                                                                                                                      | 8-(2)-2118 |
| 15343    | Dimethyl 3-(2-amino-6-chloro-9H-purin-9-yl)propane-1,1-dicarboxylate                                                                                                                                                                                                                                                                                                                                            | 8-(2)-2119 |
| 15344    | Triethyl 3-(2-amino-6-chloro-9H-purin-9-yl)propane-1,1,1-tricarboxylate                                                                                                                                                                                                                                                                                                                                         | 8-(2)-2120 |
| 15345    | 3 $\alpha$ -Amino-5 $\alpha$ -cholestane                                                                                                                                                                                                                                                                                                                                                                        | 7-(1)-729  |
| 15346    | (S)-(2-Aminophenyl)phenylmethylamine L(+)-tartaric acid salt                                                                                                                                                                                                                                                                                                                                                    | 7-(4)-1123 |
| 15347    | L-2-Aminobutanamide                                                                                                                                                                                                                                                                                                                                                                                             | 2-(6)-1702 |
| 15348    | L-2-Aminobutanamide hydrochloride                                                                                                                                                                                                                                                                                                                                                                               | 2-(6)-1703 |

| Ser. No. | Substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Ref. No.    |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 15349    | Methyl (2S)-2-aminopropanoate hydrochloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2-(6)-1704  |
| 15350    | Poly{ $\alpha$ -(3-aminopropyl)- $\omega$ -[(3-aminopropyl)dimethylsilyl]poly(dimethylsiloxane)-co-(4,4'-oxydiphthalic dianhydride)-co-2,2'-diamino-4,4'-sulfonediphenol-co-4,4'-sulfonedianiline-co-3,3'-(1,3-phenylenedioxy)dianiline}                                                                                                                                                                                                                                                                                | 10-2015     |
| 15351    | Addition product of 2-isocyanatoethyl methacrylate to (copolymer of poly{ $\alpha$ -(3-aminopropyl)- $\omega$ -[(3-aminopropyl)dimethylsilyl]poly(dimethylsiloxane)-co-[4,4'-(diazenediyl)bis(4-cyanopentanoic acid)]}, {polyaddition product of oxirane to [reaction product of 1-(allyloxy)-2,3-epoxypropane and alkanol(C=10-14, branched)], containing 1-(allyloxy)-3-alkyl(C=10-14, branched)oxypropan-2-ol as a main component}, 2-(vinylxy)ethanol, vinylxyethane, hexafluoropropene, perfluoro(vinylxypropane)) | 9-1925      |
| 15352    | Poly{ $\alpha$ -[3-aminopropyl(dialkyl(phenyl or methyl)silyl)- $\omega$ -(3-aminopropyl)poly[oxy(dialkyl(phenyl or methyl)silanediy)]-co-(4,4'-sulfonyldiphthalic dianhydride)-co-4,4'-(hexafluoropropane-2,2-diyl) bis(2-aminophenol)}                                                                                                                                                                                                                                                                                | 10-2016     |
| 15353    | Poly{ $\alpha$ -(3-aminopropyl)dimethylsilyl)- $\omega$ -(3-aminopropyl)poly[oxy(dimethylsilanediy)]-co-(4,4'-carbonyldiphthalic dianhydride)-co-2,2'-methylenebis[6-(4-amino-3,5-dimethylbenzyl)-4-methylphenol]}                                                                                                                                                                                                                                                                                                      | 10-2017     |
| 15354    | N <sup>1</sup> -(3-Aminopropyl)-N <sup>1</sup> -dodecylpropane-1,3-diamine                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2-(10)-258  |
| 15355    | Methyl L-Alaninate hydrochloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2-(6)-1705  |
| 15356    | Methyl N-(Allyloxycarbonyl)-L-alaninate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2-(5)-219   |
| 15357    | Mixture of potassium phosphite, potassium chloride and potassium salt of hexane-1,6-diylbis[nitrilobis(methylene)]tetrakis(phosphonate)                                                                                                                                                                                                                                                                                                                                                                                 | 2-(3)-411   |
| 15358    | Fermentation product by culture of gordonia with n-alkane as the main source of nutrient, containing sugar esters of fatty acids(mixture).                                                                                                                                                                                                                                                                                                                                                                              | 11-(4)-795  |
| 15359    | Allyl methyl isophthalate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4-(7)-2192  |
| 15360    | Allyl hydrogen isophthalate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4-(4)-1250  |
| 15361    | 6-Isopropylpyridine-3-carboxamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8-(1)-3167  |
| 15362    | (4-Isopropoxyphenyl)methanol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4-(10)-1234 |
| 15363    | Methyl 2-(4-isopropoxybenzyl)-3-oxobutanoate                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4-(7)-2193  |
| 15364    | 4-(4-Isopropoxybenzyl)-5-methylpyrazol-3(2H)-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(2)-2121  |
| 15365    | 4-Isopropoxybenzaldehyde                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4-(10)-1235 |
| 15366    | Reaction product of 2,2'-iminobis(ethylamine), [reaction product of 1-chloro-2,3-epoxypropane, 4,4'-(propane-2,2-diyl)diphenol and propane-1,2-diol] and 4-methylpentan-2-one                                                                                                                                                                                                                                                                                                                                           | 7-(4)-1124  |
| 15367    | Reaction product of 2,2'-iminobis(ethylamine), poly(1-chloro-2,3-epoxypropane-co-phenol-co-formaldehyde) and 4-methylpentan-2-one                                                                                                                                                                                                                                                                                                                                                                                       | 10-2018     |
| 15368    | 5-(Indan-2-yl)imidazolidine-2,4-dione                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8-(2)-2122  |
| 15369    | 2-(Indan-2-yl)glycine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 7-(1)-730   |
| 15370    | Reaction product of poly[ethane-1,2-diol-co-2-ethyl-2-(hydroxymethyl) propane-1,3-diol-co-2,2'-oxydiethanol-co-(hexanedioic acid)] and 2-isocyanatoethyl methacrylate                                                                                                                                                                                                                                                                                                                                                   | 10-2019     |
| 15371    | N-Ethyl-2-isopropyl-5-methylcyclohexanecarboxamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3-(4)-584   |
| 15372    | 3-Ethylloxetan-3-ylmethyl 4-(3-ethylloxetan-3-ylmethoxy)benzoate                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(4)-1583  |
| 15373    | 4,4'-[6-(9-Ethylcarbazol-3-ylamino)-1,3,5-triazine-2,4-diyl]bis(benzenesulfonic acid)                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8-(3)-1194  |
| 15374    | 2-Ethylbicyclo[2.2.1]heptan-2-ol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7-(2)-205   |
| 15375    | 9-Ethyl-6-(3-hydroxyamino-1-hydroxyiminobutyl)carbazol-3-yl naphthalen-1-yl ketone                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8-(1)-3168  |
| 15376    | Reaction product of 2-ethyl-2-(hydroxymethyl)propane-1,3-diol, 2,3-epoxypropyl decanoate(branched) and phthalic anhydride                                                                                                                                                                                                                                                                                                                                                                                               | 10-2020     |
| 15377    | trans-4-Ethyl-trans-4'-propylbicyclohexane                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 7-(3)-609   |
| 15378    | 1-[9-Ethyl-6-(2-methylbenzoyl)carbazol-3-yl]-3-(4-isopropylphenyl)prop-2-en-1-one                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8-(1)-3169  |
| 15379    | Reaction product of 1-[9-ethyl-6-(2-(methylbenzoyl)carbazol-3-yl)-3-(4-isopropylphenyl)prop-2-en-1-one with hydroxylamine, containing 9-ethyl-6-[3-(hydroxyamino)-1-(hydroxyimino)-3-(4-isopropylphenyl)propyl]carbazol-3-yl o-tolyl ketone as a main component                                                                                                                                                                                                                                                         | 8-(1)-3170  |
| 15380    | Poly{(ethylene glycol)-co-(hexane-1,6-diyl diisocyanate)-co-(4,4'-methylenediphenyl diisocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(1-methylethylene)]-co-(2,3-dihydroxypropyl methacrylate)-co-methanol}                                                                                                                                                                                                                                          | 10-2021     |
| 15381    | Reaction product of poly(ethylene glycol), poly[1-chloro-2,3-epoxypropane-co-4,4'-(propane-2,2-diyl)diphenol] and hexano-6-lactone                                                                                                                                                                                                                                                                                                                                                                                      | 10-2022     |

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| 15382    | Reaction product of 3,3'-(ethylenedioxy)bis(1,2-epoxypropane), 3-chloro-1,2-epoxypropane and piperazine                                                                                                                                                                                                                                                                                         | 10-2023    |
| 15383    | 3-[2-(2-Ethoxybut-1-en-1-yl)-5,6-methylenedioxybenzothiazol-3-yl]propane-1-sulfonate                                                                                                                                                                                                                                                                                                            | 8-(7)-1520 |
| 15384    | 4-[2-(2-Ethoxyprop-1-en-1-yl)benzothiazol-3-yl]butane-1-sulfonate                                                                                                                                                                                                                                                                                                                               | 8-(7)-1521 |
| 15385    | Reaction product of 2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane, 3-(2,3-epoxypropoxy)propyltrimethoxysilane, diethoxydimethylsilane and phenyltrimethoxysilane                                                                                                                                                                                                                                 | 8-(9)-94   |
| 15386    | 1-(7-Oxabicyclo[2.2.1]heptan-2-yl)cyclopentan-1-ol                                                                                                                                                                                                                                                                                                                                              | 8-(4)-1584 |
| 15387    | 7-Oxabicyclo[2.2.1]heptane-2-carboxylic acid                                                                                                                                                                                                                                                                                                                                                    | 8-(4)-1585 |
| 15388    | Allyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate                                                                                                                                                                                                                                                                                                                                                  | 8-(4)-1586 |
| 15389    | Poly[3,4'-oxydianiline-co-(4,4'-carbonyldiphthalic dianhydride)-co-4,4'-(2,2-dimethylpropane-1,3-diylidioxy)dianiline-co-(benzene-1,2,4,5-tetracarboxylic dianhydride)]                                                                                                                                                                                                                         | 10-2024    |
| 15390    | Poly[4,4'-oxydianiline-co-2,2'-dimethylbiphenyl-4,4'-diamine-co-(benzene-1,2,4,5-tetracarboxylic dianhydride)]                                                                                                                                                                                                                                                                                  | 10-2025    |
| 15391    | 4,4'-Oxybis(1,4-phenylene) bis(pentafluorophenyl) diketone                                                                                                                                                                                                                                                                                                                                      | 4-(14)-373 |
| 15392    | Poly{[4,4'-oxybis(1,4-phenylene) bis(pentafluorophenyl)diketone]-co-4,4'-(hexafluoropropane-2,2-diyl)diphenol}                                                                                                                                                                                                                                                                                  | 10-2026    |
| 15393    | (1-Oxoindan-2-ylidene)acetic acid                                                                                                                                                                                                                                                                                                                                                               | 7-(1)-731  |
| 15394    | 3-Oxocyclopentane-1-carboxylic acid                                                                                                                                                                                                                                                                                                                                                             | 3-(3)-156  |
| 15395    | Trimethyl 3-oxocyclopentane-1,2,4-tricarboxylate                                                                                                                                                                                                                                                                                                                                                | 3-(3)-157  |
| 15396    | 2-[3-(2-Oxo-1,2-dihydroquinolin-6-yloxy)propylaminocarbonyl]benzoic acid                                                                                                                                                                                                                                                                                                                        | 8-(1)-3171 |
| 15397    | Methyl 3-oxo-2-(hexadecanoylamino)hexadecanoate                                                                                                                                                                                                                                                                                                                                                 | 2-(6)-1706 |
| 15398    | [2,3,9,10,16,17,23,24-Octakis(phenylsulfanyl)-c,c,c,4-tetrakis(2,6-dimethylphenoxy)-c,c,c,1-tetrakis(hexylamino)-29H,31H-phthalocyaninato(2-)-κ <sup>4</sup> N <sup>29</sup> ,N <sup>30</sup> ,N <sup>31</sup> ,N <sup>32</sup> ]copper(II)                                                                                                                                                     | 1-(1)-653  |
| 15399    | [2,3,9,10,16,17,23,24-Octakis(phenylsulfanyl)-c,c,c,1-tetrakis(2,6-dimethylphenoxy)-c,c,c,4-tetrafluoro-29H,31H-phthalocyaninato(2-)-κ <sup>4</sup> N <sup>29</sup> ,N <sup>30</sup> ,N <sup>31</sup> ,N <sup>32</sup> ]copper(II)                                                                                                                                                              | 1-(1)-654  |
| 15400    | Alkano(C=12-22)hydrazide(mixture), containing octadecanohydrazide as a main component                                                                                                                                                                                                                                                                                                           | 2-(6)-1707 |
| 15401    | 2,2,3,3,4,4,5,5-Octafluoro-N',N''-dihydroxyhexanediiimide                                                                                                                                                                                                                                                                                                                                       | 2-(6)-1708 |
| 15402    | 2-(Octylsulfonyloxyimino)-2-(4-methoxyphenyl)acetonitrile                                                                                                                                                                                                                                                                                                                                       | 4-(7)-2194 |
| 15403    | Phytosteryl oleate(mixture)                                                                                                                                                                                                                                                                                                                                                                     | 7-(1)-732  |
| 15404    | 3-Carboxymethyl-2-methylsulfanyl-4-oxo-5-{2-[3-(4-sulfobutyl)benzothiazol-2(3H)-ylidene]-1-ethylethylidene}-4,5-dihydrothiazol-3-ium methylsulfate                                                                                                                                                                                                                                              | 8-(7)-1522 |
| 15405    | 3-Carboxymethyl-5-{2-[5,6-methylenedioxy-3-(3-sulfopropyl)benzothiazol-2(3H)-ylidene]-1-ethylethylidene}-2-methylsulfanyl-4-oxo-4,5-dihydrothiazol-3-ium 4-methylbenzenesulfonate<br>[JETOC Recommendation]<br>3-Carboxymethyl-5-{1-[5,6-methylenedioxy-3-(3-sulfopropyl)benzothiazol-2(3H)-ylidenemethyl]propylidene}-2-methylsulfanyl-4-oxo-4,5-dihydrothiazol-3-ium 4-methylbenzenesulfonate | 8-(7)-1523 |
| 15406    | Mixture of {reaction product of poly[1-chloro-2,3-epoxypropane-co-4,4'-(propane-2,2-diyl)diphenol] and α,ω-diaminopoly[oxy(1-methylethylene)]} and α,ω-diaminopoly[oxy(1-methylethylene)]                                                                                                                                                                                                       | 10-2027    |
| 15407    | Reaction product of poly[1-chloro-2,3-epoxypropane-co-4,4'-(propane-2,2-diyl)diphenol], {reaction product of dibenzoylperoxide [or bis(methylbenzoyl) peroxide or benzoyl(methylbenzoyl) peroxide]}, α-hydro-ω-(2,6-dimethylphenoxy)poly[oxy(2,6-dimethyl-1,4-phenylene)] and 4,4'-(propane-2,2-diyl)diphenol} and [2,3-epoxypropoxylation product of poly(formaldehyde-co-2-methylphenol)]     | 8-(4)-1587 |
| 15408    | Chloro(dibutyl)[6,9-bis(trifluoromethyl)-6,8,8,9,11,11,12,12,13,13,13-undecafluoro-4,7,10-trioxatridecyl]silane                                                                                                                                                                                                                                                                                 | 2-(3)-412  |
| 15409    | 6-Chloronaphthalene-2-sulfonyl chloride                                                                                                                                                                                                                                                                                                                                                         | 5-1371     |
| 15410    | 6-Chloronaphthalene-2-sulfonic acid                                                                                                                                                                                                                                                                                                                                                             | 5-1372     |
| 15411    | 2-[(2-Chloro-5-fluoro-6-oxo-1,6-dihydropyrimidin-1-yl)methyl]benzotrile                                                                                                                                                                                                                                                                                                                         | 8-(2)-2123 |
| 15412    | 2-Chloro-5-fluoropyrimidin-4(3H)-one                                                                                                                                                                                                                                                                                                                                                            | 8-(2)-2124 |
| 15413    | Condensation reaction product of 3-chloro-1-propene and poly(phenol-co-formaldehyde)                                                                                                                                                                                                                                                                                                            | 10-2028    |
| 15414    | 1-Chloromethyl-4-isopropoxybenzene                                                                                                                                                                                                                                                                                                                                                              | 4-(14)-374 |
| 15415    | (E)-5-Chloro-2-(1-methylethyl)pent-4-enoic acid                                                                                                                                                                                                                                                                                                                                                 | 2-(4)-1130 |
| 15416    | (E)-(2R)-5-Chloro-2-(1-methylethyl)pent-4-enoic acid                                                                                                                                                                                                                                                                                                                                            | 2-(4)-1131 |

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| 15417    | (E)-(2S)-5-Chloro-2-(1-methylethyl)pent-4-enoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2-(4)-1132 |
| 15418    | Methyl (E)-(2R)-5-chloro-2-(1-methylethyl)pent-4-enoate                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2-(6)-1709 |
| 15419    | Methyl (E)-(2S)-5-chloro-2-(1-methylethyl)pent-4-enoate                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2-(6)-1710 |
| 15420    | 1-Chloromethyl-2,5-dichloro-4-ethoxybenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4-(14)-375 |
| 15421    | 4-(Chloromethyl)-5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)pyrazole                                                                                                                                                                                                                                                                                                                                                                                                                            | 8-(2)-2125 |
| 15422    | Reaction product of N <sup>1</sup> -cocoalkyl-N <sup>1</sup> ,N <sup>1'</sup> -(propane-1,3-diyl)bisguanidine and acetic acid ester<br>[JETOC Recommendation]<br>It seems that "cocoalkyl" is derived from coco oil containing lauryl alcohol as a main component. Using "lauryl alcohol" as a main component of cocoalkyl, the chemical name is the followings.<br>Reaction product of N <sup>1</sup> -lauryl-N <sup>1</sup> ,N <sup>1'</sup> -(propane-1,3-diyl)bisguanidine and acetic acid ester | 12-941     |
| 15423    | Poly{[2-(methacryloyloxy)ethyl hydrogen succinate]-co-styrene-co-N-phenylmaleimide-co-(methacrylic acid)-co-(allyl methacrylate)}                                                                                                                                                                                                                                                                                                                                                                    | 9-1926     |
| 15424    | Poly{[2-(methacryloyloxy)ethyl hydrogen succinate]-co-styrene-co-N-phenylmaleimide-co-(methacrylic acid)-co-(allyl methacrylate)-co-(benzyl methacrylate)}                                                                                                                                                                                                                                                                                                                                           | 9-1927     |
| 15425    | N-(5 $\alpha$ -Cholestan-3 $\alpha$ -yl)-5-acetamido-3,5-dideoxy-2-O-methyl- $\alpha$ -D-glycero-D-galacto-2-nulopyranosamide                                                                                                                                                                                                                                                                                                                                                                        | 8-(4)-1588 |
| 15426    | N-(5 $\alpha$ -Cholestan-3 $\alpha$ -yl)-5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-methyl- $\alpha$ -D-glycero-D-galacto-2-nulopyranosamide                                                                                                                                                                                                                                                                                                                                                 | 8-(4)-1589 |
| 15427    | 4-(5 $\xi$ -Cholestan-3-yloxy)benzene-1,3-diamine                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7-(1)-733  |
| 15428    | 2-(4'-Cyanobiphenyl-4-yloxy)ethylacrylate                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2-(7)-333  |
| 15429    | 2,2'-[4,4'-(Fluorene-9,9-diyl)bis(4,1-phenylene)dioxy]diethyl diacrylate                                                                                                                                                                                                                                                                                                                                                                                                                             | 7-(1)-734  |
| 15430    | 1-(1,4-Diazepan-1-yl)ethan-1-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8-(2)-2126 |
| 15431    | Reaction product of 6-diazo-5-oxo-5,6-dihydronaphthalenesulfonyl chloride and 2,2',3,3',6,6'-hexamethyl-2'',4,4'-methanetriylphenol                                                                                                                                                                                                                                                                                                                                                                  | 7-(4)-1125 |
| 15432    | Reaction product of 2-(2,4-diaminophenyldiazonyl)-5-methoxybenzenesulfonic acid, sodium hydroxide and 4-[2-(hydroxysulfonyloxy)ethanesulfonyl]-2-sulfoanilinediazonium hydrochloride, containing pentasodium 2,2'-[2,4-diamino-5-(4-methoxy-2-sulfophenyldiazonyl)phenyl-1,3-diyl]bis(diazonyl);bis{5-2-(hydroxysulfonyloxy)ethanesulfonate as a main component                                                                                                                                      | 4-(13)-239 |
| 15433    | 2,2'-Diallyl-4,4'-(fluorene-9,9-diyl)diphenol                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7-(1)-735  |
| 15434    | Poly[(1-naphthyl cyanate)-co-1,4-bis(methoxymethyl)benzene(or benzene-1,4-dimethanol)]                                                                                                                                                                                                                                                                                                                                                                                                               | 10-2029    |
| 15435    | Poly{[1,1'-dimethyl-1,1'-(1,3-phenylene)diethyl diisocyanate]-co-2,2'-(butylimino)diethanol-co-(2-hydroxyethyl methacrylate)}                                                                                                                                                                                                                                                                                                                                                                        | 10-2030    |
| 15436    | Poly{(hexane-1,6-diyl diisocyanate)-co-(4,4'-methylenediphenyl diisocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxy poly[oxy(1-methylethylene)-co-butane-1,4-diol-co-(2,3-hydroxypropyl methacrylate)-co-methanol]}                                                                                                                                                                                                                          | 10-2031    |
| 15437    | Diethylmethoxyborane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2-(3)-413  |
| 15438    | 1,1-Dioxothiacyclohexane-4-carboxylic acid<br>[JETOC Recommendation]<br>1,1-Dioxo-1-thiacyclohexane-4-carboxylic acid                                                                                                                                                                                                                                                                                                                                                                                | 8-(6)-232  |
| 15439    | Allyl cyclohex-3-ene-1-carboxylate                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3-(4)-585  |
| 15440    | 3-[(2,5-Dichloro-4-ethoxybenzyl)sulfanyl]-5,5-dimethyl-4,5-dihydroisoxazole                                                                                                                                                                                                                                                                                                                                                                                                                          | 8-(7)-1524 |
| 15441    | 3-[(2,5-Dichloro-4-ethoxybenzyl)sulfonyl]-5,5-dimethyl-4,5-dihydroisoxazole                                                                                                                                                                                                                                                                                                                                                                                                                          | 8-(7)-1525 |
| 15442    | 1,4-Dichloro-2-ethoxybenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4-(14)-376 |
| 15443    | Poly{[2,5-dichlorophenyl 4-(1-imidazolyl)phenyl ketone]-co-[3-(2,5-dichlorobenzoyl)benzenesulfonic acid]-co-poly[2,6-dichlorobenzonitrile-co-4,4'-(1,1,1,3,3,3-hexafluoropropane-2,2-diyl)diphenol]}                                                                                                                                                                                                                                                                                                 | 10-2032    |
| 15444    | Poly{[2,5-dichlorophenyl 4-(1-imidazolyl)phenyl ketone]-co-[neopentyl 3-(2,5-dichlorobenzoyl)benzenesulfonate]-co-poly[2,6-dichlorobenzonitrile-co-4,4'-(1,1,1,3,3,3-hexafluoropropane-2,2-diyl)diphenol]}                                                                                                                                                                                                                                                                                           | 10-2033    |
| 15445    | 1,4-Dichloro-2-fluorobenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4-(15)-216 |

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| 15446    | Dehydrochlorination reaction product of {addition reaction product of dichloro(methyl)silane and $\alpha$ -trivinylsilyl- $\omega$ -trivinylsiloxypoly[oxy(dimethylsilanediyl)/oxy(diphenylsilanediyl)]}, propan-2-ol and 3-acryloyloxy-2-hydroxypropyl methacrylate                                                                                                                                                                                                               | 9-1928      |
| 15447    | 3-(2,4-Dinitrophenyloxy)-5 $\xi$ -cholestane                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7-(4)-1126  |
| 15448    | [2-(3,4-Dihydroisoquinolin-2-ium-2-yl)-1-(2-butyloctyloxymethyl)ethyl]sulfate                                                                                                                                                                                                                                                                                                                                                                                                      | 7-(1)-736   |
| 15449    | Ammonium (+)-(3R,5R)-3,5-dihydroxy-7-[(1S,2S,6S,8S,8aR)-6-hydroxy-2-methyl-8-((S)-2-methylbutanoyloxy)-1,2,6,7,8,8a-hexahydronaphthalen-1-yl]heptanoate                                                                                                                                                                                                                                                                                                                            | 8-(1)-3172  |
| 15450    | Poly[3,4-dihydro-2H-pyran-co-bicyclo[2.2.1]hept-2-ene-co-(maleic anhydride)-co-(2-methyltricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-yl methacrylate)]                                                                                                                                                                                                                                                                                                                                 | 7-(1)-737   |
| 15451    | 2-(4,6-Diphenyl-1,3,5-triazin-2-yl)-5-(2-hydroxyethoxy)phenol                                                                                                                                                                                                                                                                                                                                                                                                                      | 9-1929      |
| 15452    | 5-{Dibutyl[6,9-bis(trifluoromethyl)-6,8,8,9,11,11,12,12,13,13,13-undecafluoro-4,7,10-trioxatridecyl]siloxy}-3-methylpent-1-yn-3-ol                                                                                                                                                                                                                                                                                                                                                 | 8-(3)-1195  |
| 15453    | 8-[4-(3,4-Difluorophenyl)cyclohex-3-en-1-yl]-1,4-dioxaspiro[4.5]decane                                                                                                                                                                                                                                                                                                                                                                                                             | 2-(3)-414   |
| 15454    | 8-[4-(3,4-Difluorophenyl)cyclohexyl]-1,4-dioxaspiro[4.5]decane                                                                                                                                                                                                                                                                                                                                                                                                                     | 8-(5)-353   |
| 15455    | 2-{trans-4-[trans-4-(2,3-Difluorophenoxy)methyl]cyclohexyl]cyclohexyl}-1,3-dioxolane                                                                                                                                                                                                                                                                                                                                                                                               | 8-(5)-354   |
| 15456    | 7,8-Difluoro-2-pentyl-1-chroman                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8-(5)-355   |
| 15457    | Reaction product of dibenzoyl peroxide(or bis(methylbenzoyl) peroxide or benzoyl(methylbenzoyl) peroxide)(mixture), $\alpha$ -hydro- $\omega$ -(2,6-dimethylphenoxy) poly[oxy(2,6-dimethyl-1,4-phenylene)] and 4,4'-(propane-2,2-diyl)diphenol                                                                                                                                                                                                                                     | 10-2034     |
| 15458    | 3,3'-{[N,N-Bis(2-hydroxy-3-methoxypropyl)amino]methylbenzylimino}bis(2-hydroxypropyl) dimethacrylate                                                                                                                                                                                                                                                                                                                                                                               | 4-(7)-2195  |
| 15459    | Poly[N,N-dimethylacrylamide]-co-styrene-co-N-(hydroxymethyl)acrylamide-co-(methyl methacrylate)]                                                                                                                                                                                                                                                                                                                                                                                   | 8-(1)-3173  |
| 15460    | 6-[2-(Dimethylamino)vinyl]-5-(3-methoxybenzoyl)-2-oxo-1,2-dihydropyridine-3-carbonitrile                                                                                                                                                                                                                                                                                                                                                                                           | 4-(13)-240  |
| 15461    | 2-{4-[(3-Dimethylaminopropyl)sulfamoyl]phenyldiazenyl}-3-oxo-N-(2-methoxyphenyl)butanamide<br>[JETOC Recommendation]<br>2-{4-[(3-Dimethylaminopropyl)sulfamoyl]phenyldiazenyl}-3-oxo-N-(2-methoxyphenyl)butanamide                                                                                                                                                                                                                                                                 | 4-(10)-1236 |
| 15462    | 2-(2-Dimethylaminomethylidene)-1-(3-methoxyphenyl)butane-1,3-dione                                                                                                                                                                                                                                                                                                                                                                                                                 | 4-(3)-137   |
| 15463    | Methyl (R)-2-[(1,1-dimethylethyl)diphenylsilyloxy]propanoate                                                                                                                                                                                                                                                                                                                                                                                                                       | 9-1930      |
| 15464    | Poly[N-(1,1-dimethyl-3-oxobutyl)acrylamide-co-(2,3-dihydroxypropyl methacrylate)-co-[methylpoly(oxyethylene) methacrylate]]                                                                                                                                                                                                                                                                                                                                                        | 8-(5)-356   |
| 15465    | 3,3-Dimethyl-2,4-dioxo-9-thiaspiro[5.5]undecane-1,5,9,9-tetraone                                                                                                                                                                                                                                                                                                                                                                                                                   | 8-(5)-357   |
| 15466    | 2-(2,4-Dimethylcyclohex-3-en-1-yl)-5-methyl-5-(1-methylpropyl)-1,3-dioxane                                                                                                                                                                                                                                                                                                                                                                                                         | 3-(4)-586   |
| 15467    | Methyl 1,4-dimethylcyclohexane-1-carboxylate                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3-(4)-587   |
| 15468    | Mixture of 1-(3,3-dimethylcyclohexyl)ethan-1-one, 2,6,6-trimethylcycloheptanone and 3,3,5-trimethylcycloheptanone                                                                                                                                                                                                                                                                                                                                                                  | 8-(7)-1526  |
| 15469    | Sodium 5,5-dimethyl-4,5-dihydroisooxazole-3-thiolate                                                                                                                                                                                                                                                                                                                                                                                                                               | 9-1931      |
| 15470    | Addition reaction product of $\alpha$ -dimethylsilyl- $\omega$ -hydropoly[oxy(dimethylsilanediyl)] and 4,4'-(propane-2,2-diyl)bis(2-allylphenol)                                                                                                                                                                                                                                                                                                                                   | 10-2035     |
| 15471    | Poly[2,2'-dimethylbiphenyl-4,4'-dimaine-co-(biphenyl-3,3',4,4'-tetracarboxylic dianhydride)]                                                                                                                                                                                                                                                                                                                                                                                       | 8-(4)-1590  |
| 15472    | 2,4-Dimethyl-4-phenyloxolane                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4-(4)-1251  |
| 15473    | Phosphate of partial esterification product of tetramer of poly[2,2-dimethylpropane-1,3-diol-co-(benzene-1,2,4-tricarboxylic acid)] by 2,2-dimethylpropane-1,3-diol                                                                                                                                                                                                                                                                                                                | 8-(2)-2127  |
| 15474    | (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methylpurine-2,6(1H,3H)-dione                                                                                                                                                                                                                                                                                                                                                                                                            | 9-1932      |
| 15475    | cis-6-(3,4-Dimethoxybenzoyl)cyclohex-3-ene-1-carboxylic acid                                                                                                                                                                                                                                                                                                                                                                                                                       | 9-1933      |
| 15476    | Reaction product of sodium hydroxide, 5-[2-(hydroxysulfonyloxy)ethanesulfonyl]-2-methoxyphenyldiazonium sulfate and 4-hydroxy-8-[[2-(hydroxysulfonyloxy)ethanesulfonyl]phenyldiazenyl]-7-(sulfomethylamino)naphthalene-2-sulfonic acid, containing pentasodium 4-hydroxy-3-[[5-[2-(hydroxysulfonyloxy)ethanesulfonyl]-2-methoxyphenyldiazenyl]-8-[[2-sulfo-4-[2-(hydroxysulfonyloxy)ethanesulfonyl]phenyldiazenyl]-7-(sulfomethylamino)naphthalene-2-sulfonate as a main component | 9-1934      |
| 15477    | Poly[styrene-co-(4-vinylbenzyl 3-phenylpropenoate)]                                                                                                                                                                                                                                                                                                                                                                                                                                | 9-1935      |
| 15478    | Poly[styrene-co-N-phenylmaleimide-co-(methacrylic acid)-co-(allyl methacrylate)-co-(2-hydroxyethyl methacrylate)-co-(benzyl methacrylate)]                                                                                                                                                                                                                                                                                                                                         | 10-2036     |

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| 15479    | Poly[styrene-co-(ethylhexyl methacrylate)-co-(2-hydroxyethyl methacrylate)-co-(bornan-2-yl methacrylate)]                                                                                                                                                                              | 2-(7)-334   |
| 15480    | Poly[4,4'-sulfonyldi(phthalic dianhydride)-co-1,4-phenylenediamine-co-3,3'-(1,3-phenylenedioxy)dianiline-co-(benzene-1,2,4,5-tetracarboxylic dianhydride)]                                                                                                                             | 2-(7)-335   |
| 15481    | Methyl 2,2,2-trifluoroethyl carbonate                                                                                                                                                                                                                                                  | 4-(14)-377  |
| 15482    | S-2-Aminoethyl O-hydrogen thiosulfate                                                                                                                                                                                                                                                  | 1-(1)-655   |
| 15483    | 1-Decyloxy-4-iodobenzene                                                                                                                                                                                                                                                               | 4-(12)-832  |
| 15484    | Tetrakis(dimethylamido)titanium<br>[JETOC Recommendation]<br>Tetrakis(dimethylamino)titanium                                                                                                                                                                                           | 8-(4)-1591  |
| 15485    | N,N,N',N'-Tetrakis{4-[N,N-bis(4,4,4-trifluorobutyl)amino]phenyl}-1,4-phenylenediamine                                                                                                                                                                                                  | 8-(9)-95    |
| 15486    | 1,2,3,4-Tetrahydro-1,4-methanonaphthalene-2,3-dicarboxylic anhydride                                                                                                                                                                                                                   | 9-1936      |
| 15487    | 2'-(2,4,8,10-Tetra-tert-butyl)benzo[d,f][1,3,2]dioxaphosphin-6-yloxy)-3,3',5,5'-tetra-tert-butyl-1,1'-biphenyl-2-ol                                                                                                                                                                    | 9-1937      |
| 15488    | Poly(tetrafluoroethene-co-3,3,4,4,5,5,6,6,6-nonafluorohex-1-ene)                                                                                                                                                                                                                       | 2-(13)-241  |
| 15489    | Poly(tetrafluoroethene-co-3,3,4,4,5,5,6,6,6-nonafluorohex-1-ene-co-hexafluoropropene)                                                                                                                                                                                                  | 2-(12)-242  |
| 15490    | (E)-1,3,3,3-Tetrafluoropropene                                                                                                                                                                                                                                                         | 8-(1)-3174  |
| 15491    | 1,3,3,3-Tetrafluoro-1-methoxy-2-(trifluoromethyl)prop-1-ene                                                                                                                                                                                                                            | 8-(1)-3175  |
| 15492    | 2,2,6,6-Tetramethyl-1-undecyloxypiperidin-4-ol                                                                                                                                                                                                                                         | 2-(12)-243  |
| 15493    | 2,2,6,6-Tetramethyl-4-vinyloxypiperidin-1-oxyl                                                                                                                                                                                                                                         | 4-(7)-2196  |
| 15494    | 1,1,2,2-Tetramethoxyethane                                                                                                                                                                                                                                                             | 2-(6)-1711  |
| 15495    | Allyl methyl terephthalate                                                                                                                                                                                                                                                             | 8-(1)-3176  |
| 15496    | 3,3'-(Dodecylimino)bispropanenitrile<br>[JETOC Recommendation]<br>3,3'-(Dodecylimino)bis(propanenitrile)                                                                                                                                                                               | 12-942      |
| 15497    | Mixture of triammonium 2-[3-methyl-2,7-dioxo-1-(3-sulfonatobenzoyl)-2,7-dihydro-3H-naphtho[1,2,3-de]quinolin-6-ylamino]benzene-1,3-disulfonate and triammonium 4-[3-methyl-2,7-dioxo-1-(3-sulfonatobenzoyl)-2,7-dihydro-3H-naphtho[1,2,3-de]quinolin-6-ylamino]benzene-1,3-disulfonate | 8-(7)-1527  |
| 15498    | Reaction product of triethylaluminium and silicon dioxide                                                                                                                                                                                                                              | 8-(7)-1528  |
| 15499    | Triethylammonium 3-(2-[2-(3-carboxymethyl-4-oxo-2-thioxothiazolidin-5-ylidene)-3-carboxymethyl-4-oxothiazolidin-5-ylidene]butylidene)-5,6-methylenedioxy-2,3-dihydrobenzothiazol-3-yl)propane-1-sulfonate                                                                              | 2-(3)-415   |
| 15500    | Triethylammonium 4-(2-[2-(3-carboxymethyl-4-oxo-2-thioxothiazolidin-5-ylidene)-3-carboxymethyl-4-oxothiazolidin-5-ylidene]propylidene)-2,3-dihydrobenzothiazol-3-yl)butane-1-sulfonate                                                                                                 | 7-(2)-206   |
| 15501    | Trichloro[6,9-bis(trifluoromethyl)-6,8,8,9,11,11,12,12,13,13,13-undecafluoro-4,7,10-trioxatridecyl]silane                                                                                                                                                                              | 2-(13)-242  |
| 15502    | Tricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-ol                                                                                                                                                                                                                                            | 2-(13)-243  |
| 15503    | 1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluorooctane                                                                                                                                                                                                                                          | 7-(1)-738   |
| 15504    | 1,1,1,2,2,3,3,4,4,5,5,6,6-Tridecafluoro-8-iodooctane                                                                                                                                                                                                                                   | 2-(4)-1133  |
| 15505    | Sodium (3 $\alpha$ ,5 $\beta$ ,7 $\alpha$ ,12 $\alpha$ )-3,7,12-trihydroxycholan-24-oate                                                                                                                                                                                               | 2-(6)-1712  |
| 15506    | Sodium 3,3,3-trifluoro-2-methoxy-2-(trifluoromethyl)propanoate                                                                                                                                                                                                                         | 4-(10)-1237 |
| 15507    | Methyl 3,3,3-trifluoro-2-methoxy-2-(trifluoromethyl)propanoate                                                                                                                                                                                                                         | 8-(9)-96    |
| 15508    | 4-(Trifluoromethoxy)phenol                                                                                                                                                                                                                                                             | 3-(4)-588   |
| 15509    | 2,2,4-Trimethyl-1,4,2-oxazasilinane                                                                                                                                                                                                                                                    | 8-(1)-3177  |
| 15510    | 1,3,3-Trimethyl-2-(2-{2-phenylsulfanyl-3-[2-(1,3,3-trimethylindolin-2-ylidene)ethylidene]cyclohex-1-en-1-yl}ethenyl)-3H-indol-1-ium chloride                                                                                                                                           | 8-(7)-1529  |
| 15511    | 2,3,6-Trimethyl-1,3-benzothiazol-3-ium 4-methylbenzenesulfonate                                                                                                                                                                                                                        | 4-(5)-680   |
| 15512    | Cesium p-toluenesulfonate                                                                                                                                                                                                                                                              | 11-(4)-796  |
| 15513    | Thrombomodulin alpha(gene recombination)                                                                                                                                                                                                                                               | 5-1373      |
| 15514    | 1,1'-(1,5-Naphthalenediyl)bis(3-{3-[(2-ethylhexyl)oxy]propyl}urea)                                                                                                                                                                                                                     | 8-(7)-1530  |
| 15515    | 4-[2-(Naphtho[1,2-d]thiazol-2-yl)ethenyl]-N,N-diphenylaniline                                                                                                                                                                                                                          | 8-(4)-1592  |
| 15516    | Naphtho[2,1-b]furan-1(2H)-one                                                                                                                                                                                                                                                          | 8-(4)-1593  |
| 15517    | Naphtho[2,1-b]furan-1(2H)-one O-acetyloxime                                                                                                                                                                                                                                            | 8-(4)-1594  |
| 15518    | Naphtho[2,1-b]furan-1(2H)-one oxime                                                                                                                                                                                                                                                    | 2-(6)-1713  |
| 15519    | 2-Methylidenepropane-1,3-diyl diacetate                                                                                                                                                                                                                                                | 4-(9)-298   |
| 15520    | Di-tert-butyl 2-methylidenepropane-1,3-diyl dicarbonate                                                                                                                                                                                                                                | 8-(2)-2128  |

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| 15521    | Mixture of di-O-phenyl diphosphate, O-phenyl diphosphate, di-O-phenyl phosphate and O-phenyl phosphate                                                                                                   | 8-(4)-1595 |
| 15522    | 2-Nonylbenzimidazole                                                                                                                                                                                     | 7-(1)-739  |
| 15523    | (2Z)-2,2'-Bi(3-oxo-3,4-dihydro-2H-benzothiazin-2-ylidene)disulfonyl dichloride                                                                                                                           | 8-(7)-1531 |
| 15524    | Bicyclo[2.2.2]oct-7-ene-2,3,5,6-tetracarboxylic dianhydride                                                                                                                                              | 8-(7)-1532 |
| 15525    | 9,9-Bis(4-allyloxyphenyl)fluorene                                                                                                                                                                        | 8-(7)-1533 |
| 15526    | N,N'-Bis[3-(diethylamino)propyl][(2E)-2,2'-bi(3-oxo-3,4-dihydro-2H-benzothiazin-2-ylidene)]bis(sulfonamide)                                                                                              | 8-(3)-1196 |
| 15527    | N,N'-Bis[3-(diethylamino)propyl][(2Z)-2,2'-bi(3-oxo-3,4-dihydro-2H-benzothiazin-2-ylidene)]bis(sulfonamide)                                                                                              | 7-(4)-1127 |
| 15528    | 7-{4,6-Bis[3-(diethylammonio)propylamino]-1,3,5-triazin-2-ylamino}-4-hydroxy-3-[(2-oxo-2,3-dihydrobenzimidazol-5-yl)diazenyl]naphthalene-2-sulfonate 2-hydroxypropanoate                                 | 2-(7)-336  |
| 15529    | 2,6-Bis(3,5-dimethyl-4-hydroxybenzyl)-4-methylphenol                                                                                                                                                     | 7-(3)-610  |
| 15530    | Calcium salt of bis[S-2-[3-((2R)-2,4-dihydroxy-3,3-dimethylbutanamido)propanamido]ethyl thiosulfate}                                                                                                     | 7-(3)-611  |
| 15531    | 2,2'-Bis(trifluoromethyl)-4,4'-dinitrobiphenyl<br>[JETOC Recommendation]<br>2,2'-Bis(trifluoromethyl)-4,4'-dinitro-1,1'-biphenyl                                                                         | 7-(3)-612  |
| 15532    | 2,2'-Bis(trifluoromethyl)-1,1'-biphenyl                                                                                                                                                                  | 10-2037    |
| 15533    | N,N'-Bis(naphthalen-1-yl)-N,N'-bis[4-(N,N'-diphenylamino)phenyl]biphenyl-4,4'-diamine<br>[JETOC Recommendation]<br>N,N'-Bis(naphthalen-1-yl)-N,N'-bis[4-(N,N'-diphenylamino)phenyl]biphenyl-4,4'-diamine | 4-(14)-378 |
| 15534    | $\alpha$ -{2-[N,N-bis(2-hydroxy-3-methacryloyloxypropyl)amino]-2-methylethyl}- $\omega$ -[N,N-bis(2-hydroxy-3-methacryloyloxypropyl)amino]poly(oxy-2-methylethylene)                                     | 4-(14)-379 |
| 15535    | Bis(vinylbenzyl)sulfane                                                                                                                                                                                  | 4-(12)-833 |
| 15536    | 1,4-Bis(pentabromophenoxy)tetrabromobenzene                                                                                                                                                              | 8-(4)-1596 |
| 15537    | N,N-Bis(4-methoxymethylphenyl)aniline                                                                                                                                                                    | 10-2038    |
| 15538    | 2-Hydroxy-5-oxo-4-oxatricyclo[4.2.1.0 <sup>3,7</sup> ]nonane-6-carbonitrile                                                                                                                              | 5-1374     |
| 15539    | Ring opening polymerization product of hexano-6-lactone using 12-hydroxyoctadecanoic acid as a polymerization initiator                                                                                  | 5-1375     |
| 15540    | 5-Hydroxy-3,4-dihydronaphthalen-1(2H)-one                                                                                                                                                                | 7-(2)-207  |
| 15541    | 5-Hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-one                                                                                                                                                    | 8-(2)-2129 |
| 15542    | 1-(2-Hydroxypropyl)-4-aza-1-azoniabicyclo[2.2.2]octane 2-ethylhexanoate                                                                                                                                  | 8-(1)-3178 |
| 15543    | N-(2-Hydroxypropoxy)phthalimide                                                                                                                                                                          | 5-1376     |
| 15544    | 6-(6-Hydroxyhexyloxy)naphthalene-2-carboxylic acid                                                                                                                                                       | 8-(1)-3179 |
| 15545    | Ethyl 2-hydroxy-3-[2-(2-methoxyethoxy)-5-nitropyridin-4-yl]propenoate                                                                                                                                    | 10-2039    |
| 15546    | 8-Vinyloxytricyclo[5.2.1.0 <sup>2,6</sup> ]decane                                                                                                                                                        | 7-(1)-740  |
| 15547    | Poly((vinylsulfonic acid)-co-[4,4,4-trifluoro-3-hydroxy-1-methyl-3-(trifluoromethyl) butyl methacrylate])                                                                                                | 9-1938     |
| 15548    | 4-Vinylbiphenyl                                                                                                                                                                                          | 7-(3)-613  |
| 15549    | Poly[4-vinylphenol-co-(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]decan-1-yl methacrylate)]                                                                                                               | 9-1939     |
| 15550    | Partial acetalization product of poly[4-vinylphenol-co-(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]decan-1-yl methacrylate)]                                                                              | 9-1940     |
| 15551    | Biphenyl-2,2'-diol                                                                                                                                                                                       | 7-(3)-614  |
| 15552    | Poly((biphenyl-3,3',4,4'-tetracarboxylic dianhydride)-co-4,4'-[4,4'-(propane-2,2-diyl)bis(4,1-phenyleneoxy)]dianiline)                                                                                   | 10-2040    |
| 15553    | (3R)-Piperidin-3-amine dihydrochloride                                                                                                                                                                   | 8-(1)-3180 |
| 15554    | (4S)-3-(Piperidin-4-yl)-4-phenyl-3,4-dihydroquinazolin-2(1H)-one                                                                                                                                         | 8-(2)-2130 |
| 15555    | 4,4'-(Phenylimino)dibenzaldehyde                                                                                                                                                                         | 4-(12)-834 |
| 15556    | 4,4'-(Phenylimino)bis(4,1-phenylene)dimethanol                                                                                                                                                           | 4-(12)-835 |
| 15557    | Poly[phenol-co-2-(prop-1-en-1-yl)phenol-co-formaldehyde]                                                                                                                                                 | 10-2041    |
| 15558    | N-[2-(4-Phenoxyphenoxy)ethyl]propanamide                                                                                                                                                                 | 4-(14)-380 |
| 15559    | Tetramethyl butane-1,1,3,4-tetracarboxylate<br>[JETOC Recommendation]<br>Dimethyl 3,5-bis(methoxycarbonyl)hexanedioate                                                                                   | 2-(6)-1714 |
| 15560    | 2,2'-{4,4'-(Fluorene-9,9-diyl)bis[2-(2-hydroxyethoxy)-4,1-phenyleneoxy]}diethanol                                                                                                                        | 7-(1)-741  |

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| 15561    | 4,4'-(Propane-2,2-diyl)bis(2,6-dimethylphenol)                                                                                                                         | 7-(4)-1128  |
| 15562    | 2,2'-[4,4'-(Propane-2,2-diyl)bis(1,4-phenyleneoxy)]diacetic acid                                                                                                       | 7-(4)-1129  |
| 15563    | Disodium 2,2'-[4,4'-(propane-2,2-diyl)bis(1,4-phenyleneoxy)]diacetate                                                                                                  | 7-(4)-1130  |
| 15564    | 4-Propyl-1,3,2-dioxathiolan 2-oxide                                                                                                                                    | 8-(8)-33    |
| 15565    | 4-Propyl-1,3,2-dioxathiolane 2,2-dioxide                                                                                                                               | 8-(8)-34    |
| 15566    | 4-[trans-4-(trans-4-Propylcyclohexyl)cyclohexyl]oxetan-2-one                                                                                                           | 8-(4)-1597  |
| 15567    | 4-Fluorophenyl trans-4'-propylbicyclohexan-trans-4'-ylcarboxylate                                                                                                      | 7-(3)-615   |
| 15568    | 3-Bromo-2,2-bis(bromomethyl)propanoic acid                                                                                                                             | 2-(4)-1134  |
| 15569    | Triethyl 3-bromopropane-1,1,1-tricarboxylate                                                                                                                           | 2-(6)-1715  |
|          | [JETOC Recommendation]<br>Diethyl 2-(2-bromomethyl)-2-(ethoxycarbonyl)propanedioate                                                                                    |             |
| 15570    | trans-1-Bromomethyl-4-pentylcyclohexane                                                                                                                                | 3-(4)-589   |
| 15571    | 1-Bromomethyl-4-iodobenzene                                                                                                                                            | 4-(15)-217  |
| 15572    | 4,4'-(1,1,1,3,3,3-Hexafluoropropane-2,2-diyl)diphthalic acid                                                                                                           | 7-(4)-1131  |
| 15573    | N-Benzyl-2-(1-oxo-indan-2-yl)glycine                                                                                                                                   | 7-(1)-742   |
| 15574    | 2-[(S)-N-(1-Benzylpiperidin-4-yl)amino]phenylmethyl}aniline                                                                                                            | 8-(1)-3181  |
| 15575    | Benzimidamide                                                                                                                                                          | 4-(6)-405   |
| 15576    | 1-Benzoylthiourea                                                                                                                                                      | 4-(7)-2197  |
| 15577    | trans-4-Pentylcyclohexylmethanol                                                                                                                                       | 3-(4)-590   |
| 15578    | Poly{1-hydroxyethylene/[2-(2-methoxynaphthalen-1-yl)-1,3-dioxane-4,6-diyl]methylene/(2-methyl-1,3-dioxane-4,6-diyl)methylene/(2-phenyl-1,3-dioxane-4,6-diyl)methylene} | 9-1941      |
| 15579    | Di-tert-butyl malonate                                                                                                                                                 | 2-(6)-1716  |
| 15580    | 2-Ethylbicyclo[2.2.1]heptan-2-yl methacrylate                                                                                                                          | 7-(2)-208   |
| 15581    | Reaction product of 2,3-epoxypropyl methacrylate and poly[(methacrylic acid)-co-(benzyl methacrylate)-co-(methyl methacrylate)]                                        | 9-1942      |
| 15582    | Addition product of 1,2,3,6-tetrahydrophthalic anhydride to {addition product of acrylic acid to poly[(2,3-epoxypropyl methacrylate)-co-(methyl methacrylate)]}        | 9-1943      |
| 15583    | Tricyclo[3.3.1.1 <sup>3,7</sup> ]decan-2-yloxymethyl methacrylate                                                                                                      | 7-(2)-209   |
| 15584    | 3,3,4,4,5,5,6,6,6-Nonafluorohexyl methacrylate                                                                                                                         | 2-(6)-1717  |
| 15585    | Addition product of 2,3-epoxypropyl methacrylate to poly[(methacrylic acid)-co-(cyclohexyl methacrylate)-co-(methyl methacrylate)]                                     | 9-1944      |
| 15586    | Modification product of poly[(methacrylic acid)-co-(butyl methacrylate)-co-(methyl methacrylate)] by 2,3-epoxypropyl methacrylate                                      | 9-1945      |
| 15587    | Triethyl methanetricarboxylate                                                                                                                                         | 2-(6)-1718  |
| 15588    | 2-Methylidenepropane-1,3-diol                                                                                                                                          | 2-(8)-733   |
| 15589    | N-Methylisopropylamine                                                                                                                                                 | 2-(10)-259  |
| 15590    | Mixture of 1-(2-methylimidazol-1-yl)propan-2-ol and 2-(2-methylimidazol-1-yl)propan-1-ol                                                                               | 8-(2)-2131  |
| 15591    | 2-(5-{1-Methyl-2-[3-(4-sulfobutyl)benzothiazol-2(3H)-ylidene]ethylidene}-4-oxo-2-thioxothiazolidin-3-yl)acetic acid                                                    | 8-(7)-1534  |
| 15592    | 4-Methyl-3,4,5,6-tetrahydropyridine                                                                                                                                    | 8-(1)-3182  |
| 15593    | Potassium 1-methyl-3-(trifluoromethyl)pyrazol-5-olate                                                                                                                  | 8-(2)-2132  |
| 15594    | (4-methylphenyl) (1H-pyrrol-2-yl) methanone                                                                                                                            | 8-(1)-3183  |
|          | [JETOC Recommendation]<br>4-Methylphenyl 1H-pyrazol-2-yl ketone                                                                                                        |             |
| 15595    | 2-(2-Methylpropoxy)tetrahydropyran                                                                                                                                     | 8-(4)-1598  |
| 15596    | 4-(2-Methyl-1,3-benzothiazol-3-ium-3-yl)butane-1-sulfonate                                                                                                             | 8-(7)-1535  |
| 15597    | 3-Methylpent-4-yne-1,3-diol                                                                                                                                            | 2-(8)-734   |
| 15598    | 1-Methyl-3-methylidenepyrrolidin-2-one                                                                                                                                 | 8-(1)-3184  |
| 15599    | 2-Methyl-3-[(1R,2S,5R)-2-(1-methylethyl)-5-methylcyclohexyloxy]propane-1,2-diol                                                                                        | 3-(4)-591   |
| 15600    | (1S,2R,4R)-4-Methyl-1-(1-methylethyl)-2-[(2-methylprop-2-en-1-yl)oxy]cyclohexane                                                                                       | 3-(4)-592   |
| 15601    | 3-(2-Methyl-5,6-methylenedioxy-1,3-benzothiazol-3-ium-3-yl)propane-1-sulfonate                                                                                         | 8-(7)-1536  |
| 15602    | 2-(5-{2-[5,6-Methylenedioxy-3-(3-sulfopropyl)benzothiazol-2(3H)-ylidene]-1-ethylethylidene}-4-oxo-2-thioxothiazolidin-3-yl)acetic acid                                 | 8-(7)-1537  |
| 15603    | 2-Methoxynaphthalene-1-carbaldehyde                                                                                                                                    | 5-1377      |
| 15604    | 5-(3-Methoxybenzoyl)-6-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile                                                                                                 | 8-(1)-3185  |
| 15605    | 4-Iodophenol                                                                                                                                                           | 4-(10)-1238 |
| 15606    | 2-[(4-Iodobenzyl)oxy]-2-methylpropanoic acid                                                                                                                           | 4-(4)-1252  |

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| 15607    | Methyl 2-[(4-iodobenzyl)oxy]-2-methylpropanoate                                                                                                                                                                                                                                                                                             | 4-(7)-2198 |
| 15608    | Mixture of 3-[3-(acryloyloxymethyl)tricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-ylmethoxy]-3-oxopropyl acrylate and tricyclo[3.3.1.1 <sup>3,7</sup> ]decane-1,3-diylbis(methylene) diacrylate                                                                                                                                                     | 7-(2)-210  |
| 15609    | Poly(ethyl acrylate)-co-(butyl acrylate)-co-acrylonitrile-co-but-1,3-diene-co-(2-methylidenesuccinic acid)]                                                                                                                                                                                                                                 | 9-1946     |
| 15610    | Poly{(2-ethylhexyl acrylate)-co-(2-hydroxyethyl acrylate)-co-styrene-co-(2,3-epoxypropyl methacrylate)-co-[3-(trimethoxysilyl)propyl methacrylate]-co-(2-hydroxyethyl methacrylate)-co-(butyl methacrylate)-co-(tert-butyl methacrylate)-co-(methyl methacrylate)}                                                                          | 9-1947     |
| 15611    | Poly{(octadecyl acrylate)-co-(1,4,7-trimethyl-3,6-dioxaoctane-1,8-diyl diacrylate)-co-1-vinyl-2-pyrrolidone-co-[2-(dimethylamino)ethyl methacrylate]}                                                                                                                                                                                       | 9-1948     |
| 15612    | Addition product of 2,3-epoxypropyl methacrylate to poly[2-(cyclohex-1-ene-1,2-dicaboximido)ethyl acrylate]-co-(cyclohexyl acrylate)-co-(methacrylic acid)-co-(methyl methacrylate)]                                                                                                                                                        | 9-1949     |
| 15613    | Copolymer of 2-hydroxyethyl acrylate, butyl acrylate, methacrylic acid, 2,2,6,6-tetramethylpiperidin-4-yl methacrylate, (addition product of hexano-6-lactone to 2-hydroxyethyl methacrylate), tert-butyl methacrylate, 3-(2H-benzotriazol-2-yl)-4-hydroxyphenethyl methacrylate and methyl methacrylate                                    | 9-1950     |
| 15614    | Poly{(2-hydroxyethyl acrylate)-co-[2-(perfluoroalkyl(C=6,8,10,12,14))ethyl acrylate]-co-1,1-dichloroethene-co-N-(hydroxymethyl)acrylamide-co-[ $\alpha$ -hydroxy(oxyethylene)- $\omega$ -yl methacrylate]-co-(benzyl methacrylate)}                                                                                                         | 9-1951     |
| 15615    | Poly{(2-hydroxyethyl acrylate)-co-[2-(perfluoroalkyl(C=6,8,10,12,14))ethyl acrylate]-co-1,1-dichloroethene-co-N-(hydroxymethyl)acrylamide-co-[ $\alpha$ -hydroxy(oxy-1-methylethylene)- $\omega$ -yl methacrylate]-co-(benzyl methacrylate)}                                                                                                | 9-1952     |
| 15616    | Poly{(2-hydroxyethyl acrylate)-co-[2-(perfluoroalkyl(C=6,8,10,12,14))ethyl acrylate]-co-1,1-dichloroethene-co-N-(hydroxymethyl)acrylamide-co-(benzyl methacrylate)}                                                                                                                                                                         | 9-1953     |
| 15617    | Poly{(2-hydroxyethyl acrylate)-co-[2-(perfluoroalkyl(C=6,8,10,12,14))ethyl acrylate]-co-1,1-dichloroethene-co-[ $\alpha$ -hydroxy(oxyethylene)- $\omega$ -yl methacrylate]-co-(benzyl methacrylate)-co-N-(methoxymethyl)acrylamide}                                                                                                         | 9-1954     |
| 15618    | Poly{(2-hydroxyethyl acrylate)-co-[2-(perfluoroalkyl(C=6,8,10,12,14))ethyl acrylate]-co-N-(butoxymethyl)acrylamide-co-(2-ethylhexyl methacrylate)-co-[ $\alpha$ -hydroxy(oxyethylene/oxy-1-methylethylene)- $\omega$ -yl methacrylate]}                                                                                                     | 9-1955     |
| 15619    | Reaction product of 2-hydroxyethyl acrylate, 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, tricyclo[5.2.1.0 <sup>2,6</sup> ]decane-4,8-dimethanol and hexano-6-lactone                                                                                                                                                           | 10-2042    |
| 15620    | Poly(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl acrylate)-co-(9-methoxycarbonyl-5-oxo-4-oxatricyclo[4.2.1.0 <sup>3,7</sup> ]nonan-2-yl acrylate)-co-(4-ethyltetracyclo[6.2.1.1 <sup>3,6</sup> .0 <sup>2,7</sup> ]dodec-4-yl methacrylate)]                                                                                          | 9-1956     |
| 15621    | Poly{(2-hydroxypropyl acrylate)-co-(butyl acrylate)-co-styrene-co-(cyclohexyl methacrylate)-co-(2,2,6,6-tetramethylpiperidin-4-yl methacrylate)-co-(2-hydroxyethyl methacrylate)-co-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenethyl methacrylate]}                                                                                             | 9-1957     |
| 15622    | Poly(butyl acrylate)-co-styrene-co-(methacrylic acid)-co-(2,3-epoxypropyl methacrylate)-co-(2-hydroxyethyl methacrylate)-co-(butyl methacrylate)-co-(benzyl methacrylate)-co-(methyl methacrylate) and copolymer capped one and/or both terminals with 2,3-dihydroxypropylsulfanyl residue                                                  | 9-1958     |
| 15623    | Partial potassium salt of {poly[(butyl acrylate)-co-styrene-co-(methacrylic acid)-co-(2,3-epoxypropyl methacrylate)-co-(2-hydroxyethyl methacrylate)-co-(butyl methacrylate)-co-(benzyl methacrylate)-co-(methyl methacrylate)] and its copolymer capped one and/or both terminals with reaction product 2,3-dihydroxypropylsulfanyl group} | 9-1959     |
| 15624    | Poly(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl acrylate)-co- $\alpha$ -acryloyl- $\omega$ -hydroxypoly(oxy-1-methylethylene)]                                                                                                                                                                                                   | 9-1960     |
| 15625    | 9-Methoxycarbonyl-5-oxo-4-oxatricyclo[4.2.1.0 <sup>3,7</sup> ]non-2-yl acrylate                                                                                                                                                                                                                                                             | 8-(4)-1599 |
| 15626    | $\alpha$ -Acryloyl- $\omega$ -(furfuryloxy)poly(oxyethylenecarbonyl)                                                                                                                                                                                                                                                                        | 10-2043    |
| 15627    | Poly(4-acryloylmorpholine-co-4-isopropenylphenol-co-N-cyclohexylmaleimide-co-(methacrylic acid)-co-[(3-ethyloxetan-3-yl)methyl methacrylate]-co-(2,3-epoxypropyl methacrylate)-co-(2,3,4,5-tetrahydrofurfuryl methacrylate)}                                                                                                                | 9-1961     |
| 15628    | Poly{acrylonitrile-co-styrene-co-N-phenylmaleimide-co-methacrylamide-co-(methacrylic acid)-co-[2-(methacryloyloxy)ethyl phosphate]}                                                                                                                                                                                                         | 9-1962     |

| Ser. No. | Substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Ref. No.    |
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| 15629    | Poly[acrylonitrile-co-butadiene-1,3-diene-co-(fumaric acid)-co-(methacrylic acid)-co-methacrylonitrile]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 9-1963      |
| 15630    | Poly{(adipic acid)-co-(isophthalic acid)-co-(ethylene glycol)-co-2,2-dimethylpropane-1,3-diol-co-4-[bis(2-hydroxyethyl)(methyl)ammonio]butane-1-sulfonate}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10-2044     |
| 15631    | Poly{(adipic acid)-co-(isophthalic acid)-co-(ethylene glycol)-co-4-[bis(2-hydroxyethyl)(methyl)ammonio]butane-1-sulfonate-co-2-butyl-2-ethylpropane-1,3-diol}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10-2045     |
| 15632    | Poly{poly[(adipic acid)-co-2,2-dimethylpropane-1,3-diol]-co-poly[(adipic acid)-co-hexane-1,6-diol]-co-(ethane-1,2-diamine)-co-(4,4'-methylenedicyclohexyl diisocyanate)-co-cyclohexane-1,4-dimethanol-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co-water}                                                                                                                                                                                                                                                                                                                                                                                       | 10-2046     |
| 15633    | Reaction product of poly[(adipic acid)-co-(2,2-dimethylpropane-1,3-diol)-co-(hexano-6-lactone)], (reaction product of 3-ethyloxetan-3-ylmethanol and 1-chloro-2,3-epoxypropane) and 4,4'-methylenediphenyl diisocyanate, containing (polycondensate of {adduct of 4,4'-methylenediphenyl diisocyanate to both terminals of poly[(adipic acid)-co-2,2-dimethylpropane-1,3-diol-co-hexano-6-lactone]} and (reaction product of 3-ethyl-3-hydroxymethyloxetane and 1-chloro-2,3-epoxypropane)) as a main component                                                                                                                                               | 10-2047     |
| 15634    | Poly{poly[(adipic acid)-co-3-methylpentane-1,5-diol]-co-(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-2,2'-iminodiethanol-co-[2-ethyl-2-(hydroxymethyl)propane-1,3-diol]-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co-water}                                                                                                                                                                                                                                                                                                                                                                                                     | 10-2048     |
| 15635    | Poly{poly[(adipic acid)-co-3-methylpentane-1,5-diol]-co-(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-2-ethyl-2-(hydroxymethyl)propane-1,3-diol-co-poly[(ethylene glycol)-co-hexano-6-lactone]-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co-butane-1,4-diol-co-water}                                                                                                                                                                                                                                                                                                                                                            | 10-2049     |
| 15636    | 4-(Acetylamino)-2,2,6,6-tetramethylpiperidin-1-oxyl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 8-(1)-3186  |
| 15637    | N <sup>2</sup> -Acetyl-D-arginine dihydrate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2-(4)-1135  |
| 15638    | N <sup>2</sup> -Acetyl-L-arginine dihydrate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2-(4)-1136  |
| 15639    | (3R,4S,5S,6R,7R,9R,11R,12R,13R,14S)-10-(Acetyloxyimino)-4-[(2,6-dideoxy-4-O-acetyl-3-C-methyl-3-O-methyl- $\alpha$ -L-ribo-hexopyranosyl)oxy]-14-ethyl-7,12,13-trihydroxy-3,5,7,9,11,13-hexamethyl-6-[[3,4,6-trideoxy-2-O-acetyl-3-(dimethylamino)- $\beta$ -D-xylo-hexopyranosyl]oxy]oxacyclotetradecan-2-one                                                                                                                                                                                                                                                                                                                                                | 8-(4)-1600  |
| 15640    | N-Acetyl-D-2-cyclohexylglycine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3-(4)-593   |
| 15641    | N-Acetylneuramic acid dihydrate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8-(4)-1601  |
| 15642    | 5-Acetyl-8-hydroxyquinolin-2(1H)-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8-(1)-3187  |
| 15643    | 5-Acetyl-8-benzyloxyquinolin-2(1H)-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(1)-3188  |
| 15644    | (R)-2-(Acetamido)pentanoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2-(4)-1137  |
| 15645    | (RS)-2-(Acetamido)pentanoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2-(4)-1138  |
| 15646    | Polycondensate of 1-(2-aminoethyl)-2-methylimidazole, 3-aminomethyl-3,5,5-trimethylcyclohexylamine, [etherification reaction product of 1-chloro-2,3-epoxypropane and 4,4'-(propane-2,2-diyl)diphenol] and urea                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10-2050     |
| 15647    | Mixture of disodium 3-[4-amino-3-(3-sulfopropoxy)phenyldiazenyl] benzenesulfonate, pentasodium 2-{4,6-bis[2-(3-sulfopropoxy)-4-(3-sulfophenyldiazenyl)phenylamino]-1,3,5-triazin-2-ylamino}ethanesulfonate, pentasodium 3-{4,6-bis[2-(3-sulfopropoxy)-4-(3-sulfophenyldiazenyl)phenylamino]-1,3,5-triazin-2-ylamino}benzenesulfonate, tetrasodium 3-(3-methoxy-4-{4-(2-sulfoethylamino)-6-[4-(3-sulfophenyldiazenyl)-2-(3-sulfopropoxy)phenyldiazenyl]benzenesulfonate(main component) and trisodium 3-(3-methoxy-4-{4-hydroxy-6-[4-(3-sulfonatophenyldiazenyl)-2-(3-sulfonatopropoxy)phenylamino]-1,3,5-triazin-2-ylamino}phenyldiazenyl)benzene-1-sulfonate | 8-(3)-1197  |
| 15648    | (1R,2S)-2-Amino-1-(4-hydroxyphenyl)propan-1-ol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4-(10)-1239 |
| 15649    | (S)-(2-Aminophenyl)phenylmethanamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7-(4)-1132  |
| 15650    | 3-(2-Aminophenoxy)propane-1-sulfonic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4-(5)-681   |
| 15651    | Mixture of (4-aminophthalimidomethyl)-2,9-dimethylquinolino[2,3-b]acridine-7,14(12H,5H)-dione, 2,9-dimethylquinolino[2,3-b]acridine-7,14(12H,5H)-dione and bis(or tris or tetrakis)(4-aminophthalimidomethyl)-2,9-dimethylquinolino[2,3-b]acridine-7,14(12H,5H)-dione                                                                                                                                                                                                                                                                                                                                                                                         | 8-(1)-3189  |

| Ser. No. | Substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Ref. No.    |
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| 15652    | Reaction product of [mixture of (4-aminophthalimidomethyl)-2,9-dimethylquinolino[2,3-b]acridine-7,14(12H,5H)-dione, 2,9-dimethylquinolino[2,3-b]acridine-7,14(12H,5H)-dione and bis(or tris or tetrakis)(4-aminophthalimidomethyl)-2,9-dimethylquinolino[2,3-b]acridine-7,14-(12H,5H)-dione], 2-aminobenzenesulfonic acid and triazine                                                                                                                                                                                                                                              | 8-(1)-3190  |
| 15653    | 4-Amino-3-fluorophenol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4-(10)-1240 |
| 15654    | Naphthalene-2,6-disulfonic acid salt of 4-amino-3-fluorophenol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5-1378      |
| 15655    | Polycondensate of $\alpha$ -[3-aminopropyl(dimethyl)silyl]- $\omega$ -(3-aminopropyl) poly[oxy(dimethylsilanediyl)/oxy(diphenylsilanediyl)], $\alpha$ -[3-(4-aminobenzamido)propyl(dimethyl)silyl]- $\omega$ -[3-(4-aminobenzamido)propyl] poly[oxy(dimethylsilanediyl)/oxy(diphenylsilanediyl)], 4,4'-sulfonyldiphthalic dianhydride and 4,4'-sulfonylbis(2-aminophenol)                                                                                                                                                                                                           | 10-2051     |
| 15656    | (RS)-2-Aminopentanoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2-(4)-1139  |
| 15657    | (S)-2-Aminopentanoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2-(4)-1140  |
| 15658    | Polyaddition product of 3-(aminomethyl)-3,5,5-trimethylcyclohexylamine, 3-(isocyanatomethyl)-3,5,5-trimethylcyclohexyl isocyanate, [etherification reaction product of 1-chloro-2,3-epoxypropane and 4,4'-(propane-2,2-diyl)diphenol], 3-(N,N-dimethylamino)propylamine and benzylamine                                                                                                                                                                                                                                                                                             | 10-2052     |
| 15659    | Poly{3-aminomethyl-3,5,5-trimethylcyclohexylamine-co-(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -(4-hydroxybutyl(or 6-hydroxyhexyl))- $\omega$ -hydroxypoly(oxy-carbonyloxytetra(or hexa)methylene)-co- $\alpha$ -hydro- $\omega$ -hydroxypoly(oxytetramethylene)-co-butane-1,4-diol-co-water}                                                                                                                                                                                                  | 10-2053     |
| 15660    | Polyaddition product of 3-aminomethyl-3,5,5-trimethylcyclohexylamine, [etherification reaction product of 1-chloro-2,3-epoxypropane and 4,4'-(propane-2,2-diyl)diphenol] and benzylamine                                                                                                                                                                                                                                                                                                                                                                                            | 10-2054     |
| 15661    | Di-tert-butyl 2-[(5S)-1-(allyloxycarbonyl)-5-methyl-2,5-dihydropyrrol-3-yl]carbonylmalonate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8-(1)-3191  |
| 15662    | Mixture of allyloxybenzenemono(or di or tri)methanol and [polycondensate of (reaction product of allyl chloride and phenol) and formaldehyde]                                                                                                                                                                                                                                                                                                                                                                                                                                       | 10-2055     |
| 15663    | Poly{ $\alpha$ -[1-(allyloxymethyl)-2-(nonylphenoxy)ethyl]- $\omega$ -hydroxypoly(oxyethylene)-co-ethoxyethene-co-2-(vinylxy)ethanol-co-hexafluoropropene-co-perfluoro(propoxyethene)}                                                                                                                                                                                                                                                                                                                                                                                              | 9-1964      |
| 15664    | Reaction product of poly{ $\alpha$ -[1-(allyloxymethyl)-2-(nonylphenoxy)ethyl]- $\omega$ -hydroxypoly(oxyethylene)-co-ethoxyethene-co-2-(vinylxy)ethanol-co-hexafluoropropene-co-perfluoro(propoxyethene)} and N,N,N',N',N"-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine                                                                                                                                                                                                                                                                                                    | 9-1965      |
| 15665    | Mixture of $\alpha$ -allyl- $\omega$ -methoxypoly(oxyethylene), cyclopoly[oxy[3-(2,3-epoxypropoxy)propyl]methylsilanediyl/oxydimethylsilanediyl/oxy{methyl[2-(trialkoxo(C=1-4)silyl)ethyl]silanediyl}/oxymethyl{3-[ $\alpha$ -methylpoly(oxyethylene/oxy-1-methylethylene)oxy]propyl}silanediyl) and $\alpha$ -trimethylsilyl- $\omega$ -trimethylsiloxypoly(oxy[3-(2,3-epoxypropoxy)propyl]methylsilanediyl/oxydimethylsilanediyl/oxy{methyl[2-(trialkoxo(C=1-4)silyl)ethyl]silanediyl}/oxymethyl{3-[ $\alpha$ -methylpoly(oxyethylene/oxy-1-methylethylene)oxy]propyl}silanediyl) | 10-2056     |
| 15666    | D-Arginine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2-(4)-1141  |
| 15667    | D-Arginine hydrochloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2-(4)-1142  |
| 15668    | Reaction product of $\alpha$ -alkyl(C=16 or 18)- $\omega$ -(2,3-epoxypropoxy)poly(oxyethylene) and [poly(0-5) addition product of oxirane to cellulose]                                                                                                                                                                                                                                                                                                                                                                                                                             | 11-(4)-797  |
| 15669    | Reaction product of 2-(2-alkoxy(C=1-4)ethoxy)ethanol and cyclohexane-1,4-dicarboxylic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3-(4)-594   |
| 15670    | Poly{(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-2,2'-iminodiethanol-co-2,2'-iminobis(ethylamine)-co-(4,4'-methylenedicyclohexyl diisocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -(6-hydroxyhexyl)- $\omega$ -hydroxypoly(oxy-carbonyloxyhexamethylene)-co-hexane-1,6-diol-co-water}                                                                                                                                                                                                                                            | 10-2057     |
| 15671    | Poly{(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-ethane-1,2-diamine-co-2-ethyl-2-(hydroxymethyl)propane-1,3-diol-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxypoly(oxytetramethylene)-co-butane-1,4-diol-co-water}                                                                                                                                                                                                                                                                                                | 10-2058     |

| Ser. No. | Substance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Ref. No.   |
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| 15672    | Poly{(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-ethane-1,2-diamine-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -(6-hydroxyhexyl(or 5-hydroxypentyl))- $\omega$ -hydroxypoly[oxycarbonyloxyhexamethylene(or pentamethylene)]-co-butane-1,4-diol-co-water}                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10-2059    |
| 15673    | Poly{(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(1-methylethylene)/(2-methylethylene)]-co- $\alpha$ , $\alpha'$ -[4,4'-(propane-2,2-diyl)bis(4,1-phenylene)]bis[ $\omega$ -hydroxypoly(oxyethylene)]-co-hexane-1,6-diamine-co-water}<br>[JETOC Recommendation]<br>Poly{(3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(1-methylethylene)/oxy(2-methylethylene)]-co- $\alpha$ , $\alpha'$ -[4,4'-(propane-2,2-diyl)bis(4,1-phenylene)]bis[ $\omega$ -hydroxypoly(oxyethylene)]-co-hexane-1,6-diamine-co-water} | 10-2060    |
| 15674    | Reaction product of 3,5,5-trimethyl-6-isocyanatomethylcyclohexyl isocyanate and [reaction product of oxepan-2-one and (tricyclo[5.2.1.0 <sup>2,6</sup> ]decane-3,8(or 3,9)-diyl)dimethanol]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7-(1)-743  |
| 15675    | Methyl 3-(isopropylamino)propanoate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2-(6)-1719 |
| 15676    | N-Isopropyl-3-(isopropylamino)propanamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2-(6)-1720 |
| 15677    | Isopropyl-9H-thioxanthen-9-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8-(6)-233  |
| 15678    | N-Isopropylhydroxylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2-(10)-260 |
| 15679    | 4-[3-Isopropyl-5-(6-phenylpyridin-3-yl)-4H-1,2,4-triazol-4-yl]-2,1,3-benzoxadiazole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8-(7)-1538 |
| 15680    | Poly{4-isopropenylphenol-co-N-cyclohexylmaleimide-co-(methacrylic acid)-co-[(3-ethyloxetan-3-yl)methyl methacrylate]-co-(2,3-epoxypropyl methacrylate)-co-(tetrahydrofurfuryl methacrylate)}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 9-1966     |
| 15681    | 5-(Imidazo[1,2-a]pyridin-6-yl)-6-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8-(1)-3192 |
| 15682    | 5-(Imidazo[1,2-a]pyridin-6-yl)-6-methyl-2-oxo-1,2-dihydropyrrolidine-3-carbonitrile monohydrochloride monohydrate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8-(1)-3193 |
| 15683    | Poly{2,2'-iminobis(ethylamine)-co-ethane-1,2-diamine-co-(4,4'-methylenedicyclohexyl diisocyanate)-co-[3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid]-co-butane-1,4-diol-co- $\alpha$ -(4-hydroxybutyl(or 6-hydroxyhexyl))- $\omega$ -hydroxypoly(oxycarbonyloxytetramethylene(or hexamethylene))-co- $\alpha$ -(6-hydroxyhexyl)- $\omega$ -hydroxypoly(oxycarbonyloxyhexamethylene)-co-butane-1,4-diol-co-water}                                                                                                                                                                                                                                                                                                                               | 10-2061    |
| 15684    | Modified product of [reaction product of 2,2'-iminobis(ethylamine), 1-chlorooctane and 1-chlorododecane] by 2-chloroacetic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2-(4)-1143 |
| 15685    | Poly(indene-co-4-vinylphenol)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 9-1967     |
| 15686    | Uricase(genus Cellulomonas)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11-(4)-798 |
| 15687    | 5-Ethynylisobenzofuran-1,3-dione                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8-(4)-1602 |
| 15688    | 4-Ethynylphthalic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4-(4)-1253 |
| 15689    | Reaction product of 3-ethyloxetan-3-ylmethanol and 1-chloro-2,3-epoxypropane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(4)-1603 |
| 15690    | 4-[4-(3-Ethyloxetan-3-ylmethoxy)benzoyloxy]phenyl 4-[4-(3-ethyloxetan-3-ylmethoxy)butoxy]benzoate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8-(4)-1604 |
| 15691    | 3-[(3-Ethyloxetan-3-yl)methoxy]propyl(trimethoxy)silane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8-(4)-1605 |
| 15692    | trans-4-(trans-4-Ethylcyclohexyl)cyclohexanecarbonyl chloride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7-(3)-616  |
| 15693    | 6-Ethyl-1-(4-fluorobenzyl)-5-methyl-2-pyridone-3-carboxylic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8-(1)-3194 |
| 15694    | Ethyl 6-ethyl-1-(4-fluorobenzyl)-5-methyl-2-pyridone-3-carboxylate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 8-(1)-3195 |
| 15695    | N-(1-Ethylpropylidene)-4-fluorobenzylamine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4-(12)-836 |
| 15696    | 2-[3-Hydroxy-4-(4,6-diphenyl-1,3,5-triazin-2-yl)phenoxy]ethyl 2-ethylhexanoate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8-(3)-1198 |
| 15697    | Poly{(ethylene glycol)-co-[6,6'-(ethylenedioxy)di-2-naphthoic acid]-co-(telephthalic acid)}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10-2062    |
| 15698    | Poly{(ethylene glycol)-co-[6,6'-(ethylenedioxy)di-2-naphthoic acid]-co-(naphthalene-2,6-dicarboxylic acid)}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10-2063    |
| 15699    | Reaction product of poly(ethylene glycol), poly[1-chloro-2,3-epoxypropane-co-4,4'-(propane-2,2-diyl)diphenol], 1,3-phenylenebis(methylamine) and hexano-6-lactone]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10-2064    |
| 15700    | Ethylenediiminotetrakis(methylenephosphonic acid) or its 1-8 potassium salt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2-(3)-416  |
| 15701    | ( $\pm$ )-1,1'-(ethylene)bis(1,2,3,3a,7a- $\eta$ -1H-indenyl)diphenoxyzirconium(IV)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1-(2)-245  |
| 15702    | 1,1'-(Ethylene)bis(1,2,3,3a,7a- $\eta$ -1H-indenyl)bis(N-methylanilino)zirconium(IV)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1-(2)-246  |
| 15703    | 7-Ethoxy-3-[trans-4-(trans-4-ethylcyclohexyl)cyclohexylmethoxy]-1,2,8-trifluoronaphthalene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7-(3)-617  |

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| 15704    | 3-(1-Ethoxyethoxy)-3,7-dimethylocta-1,6-diene                                                                                                                                                                                                                                                                                                                                                                                                              | 2-(12)-244  |
| 15705    | 7-Ethoxy-1,2,8-trifluoro-3-{trans-4-[2-(trans-4-propylcyclohexyl)ethyl]cyclohexylmethoxy)naphthalene                                                                                                                                                                                                                                                                                                                                                       | 7-(4)-1133  |
| 15706    | 7-Ethoxy-1,2,8-trifluoro-3-(trans-4-pentylcyclohexylmethoxy)naphthalene                                                                                                                                                                                                                                                                                                                                                                                    | 5-1379      |
| 15707    | Reaction product of [reaction product of 2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane, 3-(2,3-epoxypropoxy)propyltrimethoxysilane, diethoxydimethylsilane and phenyltrimethoxysilane] and triethoxymethane<br>[JETOC Recommendation]<br>Reaction product of [reaction product of 2-(3,4-epoxycyclohexyl)ethyl(trimethoxy)silane, 3-(2,3-epoxypropoxy)propyl(trimethoxy)silane, diethoxy(dimethyl)silane and phenyl(trimethoxy)silane] and triethoxymethane | 8-(9)-97    |
| 15708    | Oxacycloheptadec-11-en-2-one                                                                                                                                                                                                                                                                                                                                                                                                                               | 8-(4)-1606  |
| 15709    | Epoxy ring opening polymerization product of $\alpha$ -[2-(7-oxabicyclo[4.1.0]heptan-3-yl)ethyl(dimethyl)silyl]- $\omega$ -[2-(7-oxabicyclo[4.1.0]heptan-3-yl)ethyl(dimethyl)siloxy] poly{oxy(dimethylsilylene)/oxy(alkyl(C=14-20)(methyl)silylene)/oxy[(7-oxabicyclo[4.1.0]heptan-3-yl)ethyl(methyl)silylene]}                                                                                                                                            | 10-2065     |
| 15710    | Poly[4,4'-oxydianiline-co-4,4'-diamino-2'-methoxybenzanilide-co-(benzene-1,2,4,5-tetracarboxylic acid dianhydride)]                                                                                                                                                                                                                                                                                                                                        | 10-2066     |
| 15711    | Benzyl (3S)-N-(2-oxotetrahydrofuran-3-yl)carbamate                                                                                                                                                                                                                                                                                                                                                                                                         | 8-(4)-1607  |
| 15712    | Esterification reaction product of oleic acid and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctan-1-ol                                                                                                                                                                                                                                                                                                                                                        | 2-(6)-1721  |
| 15713    | Reaction product obtained by saponification and acidolysis of {reaction product of [alkyl radical obtained by reaction of (1-methoxycyclohexyl)peroxide obtained by reaction of hydrogen peroxide, cyclohexanone and methanol] and iron(II) sulfate] and methyl hexa-2,4-dienoate}                                                                                                                                                                         | 2-(4)-1144  |
| 15714    | Partial acetylation reaction product of [partial oximation reaction product of carbonyl group of (reaction product of {diacylation reaction product of [reaction product of carbazole and 1-(4-fluorophenyl)ethan-1-one] with acetyl chloride and 4-fluorobenzoyl chloride} and carbazole) with hydroxylamine hydrochloride], containing [4-carbazole-9-yl]phenyl] {9-[4-(1-acetoxyiminoethyl)phenyl]-6-[1-(acetyloxyimino)ethyl]carbazol-3-yl} ketone     | 8-(1)-3196  |
| 15715    | Partial acetylation reaction product of (partial oximation reaction product of carbonyl group of {diacylation reaction product by ethyl 4-chloro-4-oxobutanoate and thiophene-2-carbonyl chloride with [reaction product of carbazole and 1-(4-fluorophenyl)ethan-1-one]})                                                                                                                                                                                 | 8-(1)-3197  |
| 15716    | Reaction product of glyoxal and methylamine                                                                                                                                                                                                                                                                                                                                                                                                                | 2-(10)-261  |
| 15717    | Glycylglycylglycine                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2-(4)-1145  |
| 15718    | Mixture of 1-hydrogen 5-(p-menthan-3-yl) glutarate and bis(p-menthan-3-yl) glutarate<br>[JETOC Recommendation]<br>Mixture of p-menthan-3-yl hydrogen glutarate and bis(p-menthan-3-yl) glutarate                                                                                                                                                                                                                                                           | 3-(4)-595   |
| 15719    | Chloroacetylglycylglycine                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2-(4)-1146  |
| 15720    | Allyl (2S)-4-(chloroacetyl)-2-methyl-2,5-dihydropyrrole-1-carboxylate                                                                                                                                                                                                                                                                                                                                                                                      | 8-(1)-3198  |
| 15721    | Reaction product of 1-chloro-2,3-epoxypropane and 2,4-dihydroxyphenyl phenyl ketone                                                                                                                                                                                                                                                                                                                                                                        | 8-(4)-1608  |
| 15722    | Reaction product of 1-chloro-2,3-epoxypropane and tricyclo[5.2.1.0 <sup>2,6</sup> ]decanedimethanol                                                                                                                                                                                                                                                                                                                                                        | 8-(4)-1609  |
| 15723    | Reaction product of 1-chloro-2,3-epoxypropane and poly[4,4'-(propane-2,2-diyl)diphenol-co-formaldehyde]                                                                                                                                                                                                                                                                                                                                                    | 10-2067     |
| 15724    | 4-Chloro-1-(2,3-difluorophenyl)butan-2-one                                                                                                                                                                                                                                                                                                                                                                                                                 | 4-(10)-1241 |
| 15725    | N-(2-Chloro-1,1,2-trifluoroethyl)diethylamine<br>[JETOC Recommendation]<br>N-(2-Chloro-1,1,2-trifluoroethyl)-N,N-diethylamine                                                                                                                                                                                                                                                                                                                              | 2-(10)-262  |
| 15726    | 4-Methylbenzenesulfonic acid salt of 4-(4-{3-[4-chloro-3-(trifluoromethyl)phenyl]ureido}phenoxy)-N-methylpyridine-2-carboxamide                                                                                                                                                                                                                                                                                                                            | 8-(1)-3199  |
| 15727    | 2'-Chloro-1-hydroxy-4-pentylloxynaphthalene-2-carboxanilide                                                                                                                                                                                                                                                                                                                                                                                                | 5-1380      |
| 15728    | 1-[(4-Chlorophenyl)phenylmethyl]piperazine                                                                                                                                                                                                                                                                                                                                                                                                                 | 8-(2)-2133  |
| 15729    | 5-Hydroxypentyl 3-chloropropanoate                                                                                                                                                                                                                                                                                                                                                                                                                         | 2-(6)-1722  |
| 15730    | 1-Chloro-4-propoxythioxanthen-9-one                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(6)-234   |
| 15731    | 1-[4-Chloro-3-(2,2,3,3,3-pentafluoropropoxymethyl)phenyl]-5-phenyl-1H-1,2,4-triazole-3-carboxamide                                                                                                                                                                                                                                                                                                                                                         | 8-(3)-1199  |
| 15732    | 6-Chloro-3-methylpyrimidine-2,4(1H,3H)-dione                                                                                                                                                                                                                                                                                                                                                                                                               | 8-(2)-2134  |

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| 15733    | 2-Chloro-N-methoxy-N-methylacetamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2-(6)-1723 |
| 15734    | Diethyl chlorophosphate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2-(7)-337  |
| 15735    | Reaction production of succinic anhydride, cyclohex-4-ene-1,2-dicarboxylic anhydride and (reaction product of 4,4'-(fluorene-9,9-diyl)bis(4,1-phenyleneoxy) bis(methyleneoxirane) and {addition product of acrylic acid and succinic acid to poly({3-[3-hydroxy-2,2-bis(hydroxymethyl)propoxy]propanoic acid}-co-pentaerythritol) [JETOC Recommendation]<br>Reaction production of succinic anhydride, cyclohex-4-ene-1,2-dicarboxylic anhydride and (reaction product of 4,4'-(fluorene-9,9-diyl)bis(4,1-phenyleneoxy)-3,3'-bis(1,2-epoxypropane) and {addition product of acrylic acid and succinic acid to poly({3-[3-hydroxy-2,2-bis(hydroxymethyl)propoxy]propanoic acid}-co-pentaerythritol) | 10-2068    |
| 15736    | Poly(bicyclo[2.2.1]hept-5-en-2-ylmethyl acetate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9-1968     |
| 15737    | Poly[(bicyclo[2.2.1]hept-5-en-2-ylmethyl acetate)-co-(methyl bicyclo[2.2.1]hept-5-ene-2-carboxylate)-co-5-butylbicyclo[2.2.1]hept-2-enyl]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9-1969     |
| 15738    | Mixture of 1-hydroxybut-3-en-2-yl acetate, 2-hydroxybut-3-en-1-yl acetate, 1-hydroxybutan-2-yl acetate, 2-hydroxybutyl acetate, 3-formylprop-2-en-1-yl acetate, but-3-ene-1,2-diyl diacetate, butane-1,2-diyl diacetate and butane-1,2-diol                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2-(6)-1724 |
| 15739    | 2-(3-Bromo-2-fluorophenyl)-2-oxoethyl acetate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4-(7)-2199 |
| 15740    | Reaction product of manganese(III) acetate, 2,2',2''-nitriлотris(ethylamine) and 2-hydroxybenzaldehyde, containing [2,2',2''-nitriлотris(ethylenenitriлотrimethanylidenephenolato)]manganese(III) as a main component [JETOC Recommendation]<br>Reaction product of manganese(III) acetate, 2,2',2''-nitriлотris(ethylamine) and 2-hydroxybenzaldehyde, containing [2,2',2''-nitriлотris(ethyleniminomerthyl)triphenolato]manganese(III) as a main component                                                                                                                                                                                                                                       | 1-(2)-247  |
| 15741    | Poly((1,4,7-trimethyl-3,6-dioxaoctane-1,8-diyl diacrylate)-co-(methacrylic acid)-co-[2-(dimethylamino)ethyl methacrylate]-co-[α-methylpoly(oxyethylene)-ω-yl methacrylate]-co-2-{{2-(methacryloyloxy)ethyl}dimethylammonio acetate                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9-1970     |
| 15742    | 5-(3-Chloropropanoyloxy)pentyl 3-cyanobenzoate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4-(7)-2200 |
| 15743    | 3-Cyanobenzoic anhydride                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4-(7)-2201 |
| 15744    | 3-Hydroxy-3-methylbutyl 2-cyanoacetate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2-(6)-1725 |
| 15745    | 3-Hydroxy-3-methylbutyl 2-cyano-2-(4,7-dihydroxy-1,3-benzodithiol-2-ylidene)acetate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8-(6)-235  |
| 15746    | 4-Cyano-1-hydroxy-3-methylbenzo[4,5]imidazo[1,2-a]pyridine-7- and/or -8-sulfonic acid and their sodium salt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8-(1)-3200 |
| 15747    | 1-{2-(4-Cyanophenyl)-1-[3-(trifluoromethyl)phenyl]ethylidene}-4-[4-(trifluoromethoxy)phenyl]semicarbazide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7-(4)-1134 |
| 15748    | Poly[(1-ethylcyclopentyl methacrylate)-co-(5-oxo-4-oxatricyclo[4.2.1.0 <sup>3,7</sup> ]non-2-yl methacrylate)-co-(2-methyladamantan-2-yl methacrylate)] capped both terminals with 2-cyanopropan-2-yl group and 2-methoxycyanopropan-2-yl group                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9-1971     |
| 15749    | Mixture of 4,4'-diamino-1,1'-bianthraquinone-3-sulfonic acid and its sodium salt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6-329      |
| 15750    | Addition reaction product(4:1) of 1,3-phenylenedimethyl diisocyanate to 4,4',4''-(butane-1,1,3-triyl)tris(2-cyclohexyl-5-methylphenol)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7-(3)-618  |
| 15751    | Reaction product of [reaction product of poly[(hexane-1,6-diyl diisocyanate)-co-(4,4'-methylenedicyclohexyl diisocyanate)-co-(2-hydroxy-N,N-dimethylethylammonium 3-hydroxy-2,2-dimethylpropanoate)-co-(3-hydroxy-2,2-dimethylpropanoic acid)-co-(butan-2-one oxim)] [JETOC Recommendation] Reaction product of [reaction product of poly[(hexane-1,6-diyl diisocyanate)-co-(4,4'-methylenedicyclohexyl diisocyanate)-co-(2-hydroxyethyl-N,N-dimethylethylammonium 3-hydroxy-2,2-dimethylpropanoate)-co-(3-hydroxy-2,2-dimethylpropanoic acid)-co-(butan-2-one oxim)]                                                                                                                              | 10-2069    |
| 15752    | Reaction product of hexane-1,6-diyl diisocyanate and 3,3'-bis[(2-ethylhexyl)oxy]-1,1'-[(2-ethylhexyl)imino]bis(propan-2-ol)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2-(10)-263 |
| 15753    | Poly{(4,4'-methylenedicyclohexyl diisocyanate)-co-(3-hydroxy-2-hydroxymethyl-2-methylpropanoic acid)-co-α-(6-hydroxyhexyl)-ω-hydroxypoly(oxycarbonyloxyhexamethylene)-co-water}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10-2070    |
| 15754    | Reaction product of poly{(4,4'-methylenedicyclohexyl diisocyanate)-co-α-4-hydroxybutyl(or 6-hydroxyhexyl)-ω-hydroxypoly[oxycarbonyloxytetramethylene(or hexamethylene)]} and butan-2-one oxime                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10-2071    |

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| 15755    | Poly[(4,4'-methylenediphenyl diisocyanate)-co-[2,2-bis(hydroxymethyl)propanoic acid]-co- $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1-methylethylene)-co-1-methoxypropan-2-ol]                                                                                                                | 10-2072     |
| 15756    | Methyl 3-(diethylamino)propanoate                                                                                                                                                                                                                                                             | 2-(6)-1726  |
| 15757    | N,N-Diethyl-2-chloro-2-fluoroacetamide                                                                                                                                                                                                                                                        | 2-(6)-1727  |
| 15758    | N,N-Diethyl-3-(diethylamino)propanamide                                                                                                                                                                                                                                                       | 2-(6)-1728  |
| 15759    | 1,5,2,4-Dioxadithiane 2,2,4,4-tetraoxide                                                                                                                                                                                                                                                      | 8-(8)-35    |
| 15760    | 3,6-Dioxaheptanoic acid                                                                                                                                                                                                                                                                       | 2-(4)-1147  |
| 15761    | 1,3-Dioxane                                                                                                                                                                                                                                                                                   | 8-(5)-358   |
| 15762    | Addition product of 2,3-epoxypropyl methacrylate to poly[[4-(1,2-dicarboxyethyl)-1,2,3,4-tetrahydronaphthalene-1,2-dicarboxylic dianhydride]-co-2,2'-(fluorene-9,9-diy)bis(4,1-phenyleneoxy)]diethanol                                                                                        | 10-2073     |
| 15763    | Dimethyl 3,3'-(cyclopropylimino)dipropanoate                                                                                                                                                                                                                                                  | 3-(1)-99    |
| 15764    | Reaction product of dimethyl 3,3'-(cyclopropylimino)dipropanoate and sodium methoxide                                                                                                                                                                                                         | 8-(1)-3201  |
| 15765    | 1-Cyclopropylpiperidin-4-amine                                                                                                                                                                                                                                                                | 8-(1)-3202  |
| 15766    | 1-Cyclopropylpiperidin-4-one                                                                                                                                                                                                                                                                  | 8-(1)-3203  |
| 15767    | Mixture of cyclohexane- $\gamma$ -1,cis-2,cis-4-tricarboxylic 1,2-dianhydride and cyclohexane- $\gamma$ -1,trans-2,trans-4-tricarboxylic 1,2-dianhydride                                                                                                                                      | 8-(4)-1610  |
| 15768    | 5-Cyclohexylideneimidazolidine-2,4-dione                                                                                                                                                                                                                                                      | 8-(2)-2135  |
| 15769    | 5-Cyclohexylimidazolidine-2,4-dione                                                                                                                                                                                                                                                           | 8-(2)-2136  |
| 15770    | DL-2-Cyclohexylglycine                                                                                                                                                                                                                                                                        | 3-(4)-596   |
| 15771    | L-2-Cyclohexylglycine                                                                                                                                                                                                                                                                         | 3-(4)-597   |
| 15772    | 2-Cyclohexylpropan-2-ol                                                                                                                                                                                                                                                                       | 3-(4)-598   |
| 15773    | Mixture of cyclopoly(oxy[3-(2,3-epoxypropoxy)propyl]methylsilanediyl/oxy{methyl [2-(trialkoxo(C=1-4)silyl)ethyl]silanediyl and $\alpha$ -trimethylsilyl- $\omega$ -trimethylsiloxypoly(oxy[3-(2,3-epoxypropoxy)propyl]methylsilanediyl/oxy{methyl[2-(trialkoxo(C=1-4)silyl)ethyl]silanediyl}) | 10-2074     |
| 15774    | N-(3,5-Dichloro-4-ethyl-2-hydroxyphenyl)actamide                                                                                                                                                                                                                                              | 4-(10)-1242 |
| 15775    | Dichlorobis(N-methylanilino)bis(tetrahydrofuran- $\kappa$ O)zirconium(IV)                                                                                                                                                                                                                     | 1-(1)-656   |
| 15776    | Poly[[2,5-dichlorophenyl 4-(1-imidazolyl)phenyl ketone]-co-[3-(2,5-dichlorobenzoyl)benzenesulfonic acid]-co-poly[2,6-dichlorobenzonitrile-co-4,4'-(1,1,1,3,3,3-hexafluoropropane-2,2-diy) diphenol]]                                                                                          | 10-2075     |
| 15777    | Poly[[2,5-dichlorophenyl 4-(1-imidazolyl)phenyl ketone]-co-[neopentyl 3-(2,5-dichlorobenzoyl)benzenesulfonate]-co-poly[2,6-dichlorobenzonitrile-co-4,4'-(1,1,1,3,3,3-hexafluoropropane-2,2-diy) diphenol]]                                                                                    | 10-2076     |
| 15778    | Sodium 2,5-dichlorobenzenesulfonate                                                                                                                                                                                                                                                           | 4-(5)-682   |
| 15779    | 1-(2,4-Dinitrophenyl)-4,4'-bipyridin-1-ium chloride                                                                                                                                                                                                                                           | 8-(1)-3204  |
| 15780    | 1-(2,4-Dinitrophenyl)-1'-phenyl-4,4'-bipyridine-1,1'-dium dichloride                                                                                                                                                                                                                          | 8-(1)-3205  |
| 15781    | 1-(4,7-Dihydroxy-1,3-benzodithiol-2-ylidene)piperidin-1-ium acetate                                                                                                                                                                                                                           | 8-(1)-3206  |
| 15782    | 1-(4,5-Dihydro-1,3-thiazol-2-yl)azetidene-3-thiol hydrochloride                                                                                                                                                                                                                               | 8-(7)-1539  |
| 15783    | 7,8-Difluoro-3,4-dihydronaphthalen-2(1H)-one                                                                                                                                                                                                                                                  | 7-(1)-744   |
| 15784    | Addition product of sodium hydrogen sulfite to 7,8-difluoro-3,4-dihydronaphthalen-2(1H)-one                                                                                                                                                                                                   | 7-(1)-745   |
| 15785    | 2-(2,3-difluorophenyl)acetyl chloride                                                                                                                                                                                                                                                         | 4-(7)-2202  |
| 15786    | Methyl 2,2-difluoro-2-(fluorosulfonyl)acetate                                                                                                                                                                                                                                                 | 2-(6)-1729  |
| 15787    | 3,3-Dibenzyl-1-ethyl-2,5-dimethyl-3H-indol-1-ium bromide                                                                                                                                                                                                                                      | 8-(1)-3207  |
| 15788    | 2-[(3,3-Dibenzyl-1-ethyl-5-methylindolin-2-ylidene)methyl]-4-(5-hydroxy-1-phenyl-3-trifluoromethylpyrazol-4-yl)cyclobutanebis(ylium)-1,3-bis(olate)                                                                                                                                           | 8-(2)-2137  |
| 15789    | 3,3-Dibenzyl-1-ethyl-5-methyl-2-methylideneindoline                                                                                                                                                                                                                                           | 8-(1)-3208  |
| 15790    | Poly[(2-hydroxypropane-1,3-diy dimethacrylate)-co-(methacrylic acid)-co-(cyclohexyl methacrylate)-co-(methyl methacrylate)]                                                                                                                                                                   | 9-1972      |
| 15791    | (3Z)-4-(Dimethylamino)-3-(imidazo[1,2-a]pyridin-6-yl)but-3-en-2-one                                                                                                                                                                                                                           | 8-(1)-3209  |
| 15792    | Poly[N-[3-(dimethylamino)propyl]methacrylamide-co-(alkyl(2-ethylhexyl or C=12-15(straight chain and branched chain)) methacrylate)]                                                                                                                                                           | 9-1973      |
| 15793    | Poly[N-[3-(dimethylamino)propyl]methacrylamide-co-alkyl(2-ethylhexyl or C=12-15(straight chain and branched chain) or C=16,18(straight chain)) methacrylate]]                                                                                                                                 | 9-1974      |
| 15794    | Poly(dimethylamine-co-phenol-co-formaldehyde)                                                                                                                                                                                                                                                 | 10-2077     |
| 15795    | Poly[2,2'-dimethylbenzidine-co-(biphenyl-3,3',4,4'-tetracarboxylic dianhydride)-co-4,4'-(1,3-phenylenedioxy)]dianiline-co-(benzene-1,2,4,5-tetracarboxylic dianhydride)]                                                                                                                      | 10-2078     |

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| 15796    | 5,6-Dimethylbenzimidazole                                                                                                                                                                                                                                                                                                                                                                                         | 8-(2)-2138 |
| 15797    | Mixture of<br>4-((2-[(3,3'-dimethoxy-4'-[2-oxo-1-(N-phenylcarbamoyl)propyl]diazanyl)-1,1'-biphenyl-4-yl]diazanyl)-1,3-dioxobutyl)amino)benzenesulfonic acid, its aluminium salt and<br>2,2'-[(3,3'-dimethoxy-1,1'-biphenyl-4,4'-diyl)bis(diazenediyl)]bis(3-oxo-N-phenylbutanamide)                                                                                                                               | 7-(3)-619  |
| 15798    | 2,4-Dimethoxybenzenesulfonyl chloride                                                                                                                                                                                                                                                                                                                                                                             | 4-(8)-278  |
| 15799    | Sodium 2,4-dimethoxybenzenesulfonate                                                                                                                                                                                                                                                                                                                                                                              | 4-(5)-683  |
| 15800    | $\alpha$ -[Dimethoxy(methyl)silylmethyl]carbamoyl- $\omega$ -[[dimethoxy(methyl)silylmethyl]carbamoyloxy]poly(oxy-1-methylethylene)                                                                                                                                                                                                                                                                               | 10-2079    |
| 15801    | 1,3-Dimorpholinopropan-1-one                                                                                                                                                                                                                                                                                                                                                                                      | 8-(7)-1540 |
| 15802    | Gallium(III) nitrate                                                                                                                                                                                                                                                                                                                                                                                              | 1-(3)-356  |
| 15803    | Modification product of (oligosaccharide containing plant origine xylose as a main chaine) by uronic acid                                                                                                                                                                                                                                                                                                         | 11-(4)-799 |
| 15804    | Sodium 4-sulfanylbutanesulfonate                                                                                                                                                                                                                                                                                                                                                                                  | 2-(4)-1148 |
| 15805    | Dimethacrylic acid ester of alcohol obtained by hydrogenation and reduction of dimer acid                                                                                                                                                                                                                                                                                                                         | 3-(4)-599  |
| 15806    | Bis(2,2,6,6-tetramethyl-1-undecyloxypiperidin-4-yl) carbonate                                                                                                                                                                                                                                                                                                                                                     | 8-(1)-3210 |
| 15807    | Tetrakis(dimethylamino)titanium(IV)                                                                                                                                                                                                                                                                                                                                                                               | 1-(3)-357  |
| 15808    | 8-(4,5,6,7-Tetrachloro-1,3-dioxo-1,3-dihydroisindol-2-yl)-2-(4,5,6,7-tetrachloro-3-hydroxy-1-oxo-1H-inden-2-yl)quinoline-6-sulfonic acid                                                                                                                                                                                                                                                                          | 8-(1)-3211 |
| 15809    | Tetrachlorobis(tetrahydrofuran- $\kappa$ O)zirconium(IV)                                                                                                                                                                                                                                                                                                                                                          | 1-(1)-657  |
| 15810    | Tetra[6.2.1.1 <sup>3,6</sup> .0 <sup>2,7</sup> ]dodecane                                                                                                                                                                                                                                                                                                                                                          | 7-(1)-746  |
| 15811    | Mixture of<br>[3,5,5,6,8,8,9,11,11,12,12,13,13,13-tetradecafluoro-3,6,9-tris(trifluoromethyl)-4,7,10-trioxatridecyl]phosphonic acid, diethyl<br>[3,5,5,6,8,8,9,11,11,12,12,13,13,13-tetradecafluoro-3,6,9-tris(trifluoromethyl)-4,7,10-trioxatridecyl]phosphonate and ethyl hydrogen diethyl<br>[3,5,5,6,8,8,9,11,11,12,12,13,13,13-tetradecafluoro-3,6,9-tris(trifluoromethyl)-4,7,10-trioxatridecyl]phosphonate | 2-(3)-417  |
| 15812    | 6-[3,3',5,5'-Tetra-tert-butyl-2'-(5,5-dimethyl-1,3,2-dioxaphosphorinan-2-yloxy)-1,1'-biphenyl-2-yloxy]-2,4,8,10-tetra-tert-butyl-dibenzo[d,f][1,3,2]dioxaphosphine                                                                                                                                                                                                                                                | 8-(9)-98   |
| 15813    | 1,1,2,2-tetrafluoro-1,2-bis[(trifluorovinyl)oxy]ethane                                                                                                                                                                                                                                                                                                                                                            | 2-(12)-245 |
| 15814    | Tetrabenzob[b,g,l,q]{or tribenzob[b,g,l]pyrido[2,3(or 3,2):q] or dibenzob[b,g]dipyrido[2,3(or 3,2):l,q] or dibenzob[b,l]dipyrido[2,3 (or 3,2):g,q] or benzo[b]tripyrindo[2,3(or 3,2):g,l,q]}-5,10,15,20-tetraazaporphyrinato copper(II) (mixture)                                                                                                                                                                 | 1-(1)-658  |
| 15815    | Mixture of dimethyl dodecanedioate, 8-phenylnon-7-enoic acid, methyl 8-phenylnon-7-enoate, methyl 8-phenylnonanoate, methyl 2-butyl-4-phenylpent-3-enoate, dimethyl 7-methyl-7-phenyltetradecanedioate, 8-methoxy-8-phenylnonanoic acid and methyl 8-methoxy-8-phenylnonanoate(main component)                                                                                                                    | 4-(7)-2203 |
| 15816    | 4,4',4''-(1,3,5-triazine-2,4,6-triyl)tris(3-hydroxy-2-methylphenol)                                                                                                                                                                                                                                                                                                                                               | 8-(3)-1200 |
| 15817    | Triethylammonium 3-(2-[[5-chloro-3-(3-sulfonatopropyl)benzothiazol-3-ium-2-yl]methylidene]-2,3-dihydronaphtho[1,2-d]thiazol-3-yl)propanesulfonate                                                                                                                                                                                                                                                                 | 8-(7)-1541 |
| 15818    | N-[3-(triethoxysilyl)propyl]perfluoroalkane(C=7-15)amide                                                                                                                                                                                                                                                                                                                                                          | 2-(3)-418  |
| 15819    | Poly(tricyclo[5,2,1,0 <sup>2,6</sup> ]deca-3,8-diene-co-1-naphthol)                                                                                                                                                                                                                                                                                                                                               | 9-1975     |
| 15820    | Tricyclo[3.3.1.1 <sup>3,7</sup> ]decane-1,3-dimethanol and hexano-6-lactone                                                                                                                                                                                                                                                                                                                                       | 7-(2)-211  |
| 15821    | Reaction product of (tricyclo[5.2.1.0 <sup>2,6</sup> ]decane-3,8(or 3,9)-diyl)dimethanol and hexano-6-lactone                                                                                                                                                                                                                                                                                                     | 7-(1)-747  |
| 15822    | Tris(4-{3-[(3,3-dibenzyl-1-ethyl-5-methylindolin-2-ylidene)methyl]-2,4-diolatocyclobutanebis(ylium)-1-yl}-1-phenyl-3-trifluoromethylpyrazol-5-olato)aluminium(III)<br><br>[JETOC Recommendation]<br>Aluminium(III) tris(4-{3-[(3,3-dibenzyl-1-ethyl-5-methylindolin-2-ylidene)methyl]-2,4-diolatocyclobutanebis(ylium)-1-yl}-1-phenyl-3-trifluoromethylpyrazol-5-olate                                            | 1-(1)-659  |
| 15823    | 4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-1,2-epoxynonane                                                                                                                                                                                                                                                                                                                                                           | 8-(4)-1611 |
| 15824    | Reaction product of 4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-1,2-epoxynonane and $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene)                                                                                                                                                                                                                                                                               | 12-943     |
| 15825    | 6,7,8-Trihydroxy-1-hydroxymethyl-2-oxa-4-azabicyclo[3.3.1]nonan-3-one                                                                                                                                                                                                                                                                                                                                             | 8-(7)-1542 |
| 15826    | Benzyl rel-(1S,2S,3S,4R,5R)-2,3,4-trihydroxy-5-hydroxymethylcyclohexylcarbamate                                                                                                                                                                                                                                                                                                                                   | 3-(4)-600  |

| Ser. No. | Substance                                                                                                                                                                                                                                             | Ref. No.    |
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| 15827    | Reaction product of 1,5,10-trimethylcyclododeca-1,5,9-triene and acetic anhydride, containing 1-(4,9-dimethyl-12-methylidenecyclododeca-4,8-dien-1-yl)ethan-1-one as a main component                                                                 | 3-(5)-41    |
| 15828    | Reaction product of (trimethoxy)methylsilane, silicon dioxide and 5-benzoyl-2,4-dihydroxy-3-[3-(triethoxysilyl)propyl]phenyl phenyl ketone                                                                                                            | 7-(4)-1135  |
| 15829    | 1-(Naphthalen-2-yl)ethanol                                                                                                                                                                                                                            | 5-1381      |
| 15830    | Poly(naphthalene-2,7-diol-co-2-furaldehyde-co-formaldehyde)                                                                                                                                                                                           | 10-2080     |
| 15831    | Poly(naphthalene-2,7-diol-co-formaldehyde)                                                                                                                                                                                                            | 10-2081     |
| 15832    | Surface finishing product of silicon dioxide by triethoxy(octyl)silane                                                                                                                                                                                | 11-(4)-800  |
| 15833    | 4-Nitrobenzo-1H-triazole                                                                                                                                                                                                                              | 8-(3)-1201  |
| 15834    | 2-(Bicyclo[2.2.1]hept-5-en-2-yl)-4,5-dihydro-1,3-oxazole                                                                                                                                                                                              | 8-(7)-1543  |
| 15835    | Bicyclo[2.2.1]hept-5-ene-2-carbonitrile                                                                                                                                                                                                               | 7-(2)-212   |
| 15836    | Tetrasodium P <sup>1</sup> , P <sup>4</sup> -bis(5'-uridinyl)tetraphosphate                                                                                                                                                                           | 8-(2)-2139  |
| 15837    | 3-Hydroxy-3-methylbutyl 2-{4,7-bis[trans-4-(trans-4-ethylcyclohexyl)cyclohexanecarbonyloxy]-1,3-benzodithiol-2-ylidene}-2-cyanoacetate                                                                                                                | 8-(6)-236   |
| 15838    | Pentane-1,5-diyl bis(3-chloropropanoate)                                                                                                                                                                                                              | 2-(6)-1730  |
| 15839    | N,N'-Bis(stilben-4-yl)-N,N'-bis(2-ethyl-6-methylphenyl)benzidine                                                                                                                                                                                      | 7-(3)-620   |
| 15840    | 3,5-Bis(trifluoromethyl)benzaldehyde                                                                                                                                                                                                                  | 4-(10)-1243 |
| 15841    | Trifumaric acid salt of bis{(4S)-3-[1-(3-trifluoromethoxybenzyl)piperidin-4-yl]-4-phenyl-3,4-dihydroquinazolin-2(1H)-one}                                                                                                                             | 8-(2)-2140  |
| 15842    | Dimethyl bis{2-[4,4'-(fluorene-9,9-diyl)bis(2-methyl-4,1-phenylene)dioxy]acetate}                                                                                                                                                                     | 7-(1)-748   |
| 15843    | Bis(4-hexyloxy-2-methylbenzenesulfonyl)diazomethane                                                                                                                                                                                                   | 4-(13)-241  |
| 15844    | (3R,4S,5S,6R,7R,9R,11R,12R,13R,14S)-10-(hydroxyimino)-14-ethyl-4,13-dihydroxy-7,12-(2-methylidenepropane-1,3-diyl)dioxy-3,5,7,9,11,13-hexamethyl-6-{[3,4,6-trideoxy-2-O-acetyl-3-(dimethylamino)-β-D-xylo-hexopyranosyl]oxy} oxacyclotetradecan-2-one | 8-(5)-359   |
| 15845    | Methyl 2-(hydroxyimino)-3-oxohexadecanoate                                                                                                                                                                                                            | 2-(6)-1731  |
| 15846    | 1-Hydroxyethane-1,1-diyl diphosphonic acid or its 1-4 potassium salt                                                                                                                                                                                  | 2-(3)-419   |
| 15847    | 4-Nitrobenzyl (5R,6S)-6-[(1R)-1-hydroxyethyl]-3,7-dioxo-1-azabicyclo[3.2.0]heptane-2-carboxylate                                                                                                                                                      | 8-(1)-3212  |
| 15848    | N-(2-Hydroxyethyl)bicyclo[2.2.1]hept-5-ene-2-carboxamide                                                                                                                                                                                              | 7-(2)-213   |
| 15849    | 5-(3-Chloropropanoyloxy)pentyl 3-(N-hydroxycarbamimidoyl)benzoate                                                                                                                                                                                     | 4-(7)-2204  |
| 15850    | Bis(2-butoxyethyl) 2-hydroxysuccinate                                                                                                                                                                                                                 | 2-(6)-1732  |
| 15851    | 5-Hydroxy-3,4-dihydronaphthalen-1(2H)-one                                                                                                                                                                                                             | 7-(1)-749   |
| 15852    | 1-(4-Hydroxyphenyl)pentan-1-one                                                                                                                                                                                                                       | 4-(10)-1244 |
| 15853    | Methyl trans-4-hydroxy-L-prolinate hydrochloride                                                                                                                                                                                                      | 8-(1)-3213  |
| 15854    | Benzyl [(1S)-1-(4-hydroxybenzoyl)ethyl]carbamate                                                                                                                                                                                                      | 4-(6)-406   |
| 15855    | Sodium 2-hydroxy-11H-benzo[a]carbazole-3-carboxylate                                                                                                                                                                                                  | 8-(1)-3214  |
| 15856    | Dimethyl 4-(3-hydroxy-3-methylbut-1-yn-1-yl)phthalate                                                                                                                                                                                                 | 4-(7)-2205  |
| 15857    | Monopotassium 4-(hydroxymethyl)-1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-olate                                                                                                                                                                       | 8-(2)-2141  |
| 15858    | Partial hydrogenation reaction product of poly(4-vinylphenol)                                                                                                                                                                                         | 9-1976      |
| 15859    | (Biphenyl-4-yl) phenyl ketone                                                                                                                                                                                                                         | 7-(3)-621   |
| 15860    | Reaction product of biphenyl-4,4'-diol, phenol and phosphoryl trichloride                                                                                                                                                                             | 10-2082     |
| 15861    | Poly{(biphenyl-3,3',4,4'-tetracarboxylic dianhydride)-co-4,4'-[(propane-2,2-diyl)bis(4,1-phenyleneoxy)]dianiline-co-(benzene-1,2,4,5-tetracarboxylic dianhydride)}                                                                                    | 10-2083     |
| 15862    | 3,3'(or 3,4' or 4,4')-Dimethyl 1,1'-biphenyl-3,3',4,4'-tetracarboxylate                                                                                                                                                                               | 7-(3)-622   |
| 15863    | 2-Piperidone                                                                                                                                                                                                                                          | 8-(1)-3215  |
| 15864    | Pyridineborane                                                                                                                                                                                                                                        | 8-(1)-3216  |
| 15865    | (3R)-Pyrrolidin-3-ol                                                                                                                                                                                                                                  | 8-(1)-3217  |
| 15866    | (3S)-Pyrrolidin-3-ol                                                                                                                                                                                                                                  | 8-(1)-3218  |
| 15867    | 3-(2-Pyrrolidon-1-yl)butanal                                                                                                                                                                                                                          | 8-(1)-3219  |
| 15868    | 4-Phenylcyclohexanone                                                                                                                                                                                                                                 | 7-(3)-623   |
| 15869    | 4-[5-Phenyl-2-(4-sulfobutylsulfanyl)-1,3-benzoxazol-3-ium-3-yl]butanesulfonate                                                                                                                                                                        | 8-(7)-1544  |
| 15870    | Triethylamine salt of 4-(2-[[5-phenyl-3-(4-sulfobutyl)-1,3-benzoxazol-2-ylidene]methyl]-5-methoxy-1,3-benzoxazol-3-ium-3-yl)butanesulfonate                                                                                                           | 8-(7)-1545  |
| 15871    | 6-Phenylnicotinoyl chloride hydrochloride                                                                                                                                                                                                             | 8-(1)-3220  |
| 15872    | 1-Phenyl-4,4'-bipyridin-1-ium chloride                                                                                                                                                                                                                | 8-(1)-3221  |

| Ser. No. | Substance                                                                                                                                                                                                                                                                          | Ref. No.    |
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| 15873    | 1-Phenyl-1'-{4-[4-(1'-phenyl-4,4'-bipyridine-1,1'-dium-1-yl)phenylcarbonyl]phenyl}-4,4'-bipyridine-1,1'-dium tetrachloride                                                                                                                                                         | 8-(1)-3222  |
| 15874    | 1-Phenyl-1'-{4-[4-(1'-phenyl-4,4'-bipyridine-1,1'-dium-1-yl)phenylcarbonyl]phenyl}-4,4'-bipyridine-1,1'-dium bis{3,12-bis[5-(2-methyl-4,6-dioxo-2-propyl-1,3-dioxan-5-ylidene)penta-1,3-dien-1-yl]-4,13-dioxo-1,5,10,14-tetraoxadispairo[5.2.5.2]hexadeca-2,11-diene-2,11-diolate} | 8-(1)-3223  |
| 15875    | 5-Phenyl-1,3-benzoxazole-2-thiol                                                                                                                                                                                                                                                   | 8-(7)-1546  |
| 15876    | Zinc(□) phenylphosphonate                                                                                                                                                                                                                                                          | 4-(3)-138   |
| 15877    | 2-(4-Phenoxyphenoxy)ethylamine                                                                                                                                                                                                                                                     | 4-(14)-381  |
| 15878    | But-3-yn-2-ol                                                                                                                                                                                                                                                                      | 2-(8)-735   |
| 15879    | 6-[3-(Phthalimido)propoxy]quinolin-2(1H)-one                                                                                                                                                                                                                                       | 8-(1)-3224  |
| 15880    | 4'-[trans-4-(trans-4-Butylcyclohexyl)cyclohexyl]-3,4,5-trifluorobiphenyl                                                                                                                                                                                                           | 7-(3)-624   |
| 15881    | (R)-2-[tert-Butyl(diphenyl)silyloxy]propanimidamide hydrochloride                                                                                                                                                                                                                  | 4-(3)-139   |
| 15882    | 4"-Butyl-4-[difluoro(3,4,5-trifluorophenoxy)methyl]-2',3,5-trifluoro-1,1":4',1"-terphenyl                                                                                                                                                                                          | 7-(3)-625   |
| 15883    | (2R,4R)-4-[tert-Butyl(dimethyl)silyloxy]-N-methoxy-N <sup>2</sup> -dimethyloct-7-enamide<br>[JETOC Recommendation]<br>(2R,4R)-4-[tert-Butyl(dimethyl)silyloxy]-N-methoxy-N,2-dimethyloct-7-enamide                                                                                 | 2-(3)-420   |
| 15884    | tert-Butylsulfanyl chloride                                                                                                                                                                                                                                                        | 2-(6)-1733  |
| 15885    | 5-tert-Butyl-2-methyl-4-(4-nitrophenyldiazenyl)-2H-pyrazol-3-ylamine                                                                                                                                                                                                               | 8-(2)-2142  |
| 15886    | 5-tert-Butyl-2-methyl-2H-pyrazol-3-ylamine                                                                                                                                                                                                                                         | 8-(2)-2143  |
| 15887    | Methyl N-tert-butoxycarbonyl-trans-4-hydroxy-L-prolinate                                                                                                                                                                                                                           | 8-(1)-3225  |
| 15888    | Potassium N-tert-butoxycarbonyl-4-phenyl-L-phenylalaninate                                                                                                                                                                                                                         | 7-(3)-626   |
| 15889    | N-tert-Butoxycarbonyl-(2S,4S)-4-fluoroproline                                                                                                                                                                                                                                      | 8-(1)-3226  |
| 15890    | Methyl N-tert-butoxycarbonyl-cis-4-fluoro-L-prolinate                                                                                                                                                                                                                              | 8-(1)-3227  |
| 15891    | Poly[4,4'-(fluorene-9,9-diy)ldiphenol-co-formaldehyde]                                                                                                                                                                                                                             | 10-2084     |
| 15892    | (3R,4S)-1-(4-Fluorophenyl)-3-[(3S)-3-(4-fluorophenyl)-3-hydroxypropyl]-4-(4-hydroxyphenyl)azetid-2-one                                                                                                                                                                             | 8-(1)-3228  |
| 15893    | (3-Fluoro-4'-propylbiphenyl-4-yl)dihydroxyborane                                                                                                                                                                                                                                   | 7-(3)-627   |
| 15894    | 3-Bromoaniline                                                                                                                                                                                                                                                                     | 4-(12)-837  |
| 15895    | 2-(4-Bromophenoxy)-2H-tetrahydropyran                                                                                                                                                                                                                                              | 8-(4)-1612  |
| 15896    | 1-(3-Bromo-2-fluorophenyl)-2-chloroethan-1-one                                                                                                                                                                                                                                     | 4-(10)-1245 |
| 15897    | (3-Bromopropyl)triphenylphosphonium bromide                                                                                                                                                                                                                                        | 4-(2)-300   |
| 15898    | trans-1-(Bromomethyl)-4-ethylcyclohexane                                                                                                                                                                                                                                           | 3-(4)-601   |
| 15899    | 2-Bromo-2-methylpropanoic acid                                                                                                                                                                                                                                                     | 2-(4)-1149  |
| 15900    | Methyl hexa-2,4-dienoate                                                                                                                                                                                                                                                           | 2-(6)-1734  |
| 15901    | Concentrate of Friedel-Crafts reaction product of hexano-6-lactone and benzene, containing 5-phenylhexanoic acid and 6-phenylhexanoic acid as main components                                                                                                                      | 4-(4)-1254  |
| 15902    | 1,1,1,2,3,3-hexafluoro-3-(2,2,3,3-tetrafluoropropoxy)propane                                                                                                                                                                                                                       | 2-(12)-246  |
| 15903    | 4-Hexyloxy-2-methylbenzene-1-thiol                                                                                                                                                                                                                                                 | 4-(10)-1246 |
| 15904    | 4-Hexylbenzene-1,3-diol                                                                                                                                                                                                                                                            | 4-(10)-1247 |
| 15905    | α-Methylpoly(oxyethylene)-ω-yl hydrogen<br>3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecylphosphonate                                                                                                                                                                        | 2-(3)-421   |
| 15906    | Sodium salts of reaction product of ammonium peroxodisulfate, sodium phosphinate and maleicanhydride, containing sodium 2,2'-(hydroxyphosphonyl)disuccinate and sodium salt of α,α'-(hydroxyphosphonyl)bis[ω-hydropoly(1,2-dicarboxyethylene)] as main components                  | 2-(3)-422   |
| 15907    | Isopropyl perfluoroalkanoate(C=7-15)                                                                                                                                                                                                                                               | 2-(6)-1735  |
| 15908    | 3-Benzyl-1-ethyl-2,5-dimethylindole                                                                                                                                                                                                                                                | 8-(1)-3229  |
| 15909    | N-Benzylloxycarbonyl-L-2-cyclohexylglycine                                                                                                                                                                                                                                         | 4-(4)-1255  |
| 15910    | Methyl [N-(benzyloxycarbonyl)-L-homoserinyl]-L-alaninate<br>[JETOC Recommendation]<br>Methyl N-[N-(benzyloxycarbonyl)-L-homoserinyl]-L-alaninate                                                                                                                                   | 4-(7)-2206  |
| 15911    | 8-Benzyl-5-(2-bromoacetyl)quinolin-2(1H)-one                                                                                                                                                                                                                                       | 8-(1)-3230  |
| 15912    | Ethyl 2-{(S)-[N-(1-benzylpiperidin-4-yl)aminol(phenyl)methyl]phenylcarbamate                                                                                                                                                                                                       | 8-(1)-3231  |
| 15913    | Tris[5-(3-chloropropanoyloxy)pentyl]<br>N <sup>2</sup> ,N <sup>2'</sup> ,N <sup>2''</sup> -(benzene-1,3,5-triyltricarboxyloxy)tris(3-carbamimidoylbenzoate)                                                                                                                        | 4-(7)-2207  |
| 15914    | Tris[5-(acryloyloxy)pentyl]<br>3,3',3''-[5,5',5''-(benzene-1,3,5-triyl)tris(1,2,4-oxadiazole-5,3-diyl)tribenzoate                                                                                                                                                                  | 8-(7)-1547  |
| 15915    | Tris[5-(3-chloropropanoyloxy)pentyl]<br>3,3',3''-[5,5',5''-(benzene-1,3,5-triyl)tris(1,2,4-oxadiazole-5,3-diyl)tribenzoate                                                                                                                                                         | 8-(7)-1548  |

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| 15916    | {5-Benzoyl-2,4-dihydroxy-3-[3-(triethoxysilyl)propyl]phenyl} phenyl ketone                                                                                                                                                                                                                                 | 7-(4)-1136 |
| 15917    | 2-(2H-Benzotriazol-2-yl)-5-ethoxyphenol                                                                                                                                                                                                                                                                    | 8-(3)-1202 |
| 15918    | 2-(2H-Benzotriazol-2-yl)-5-butoxyphenol                                                                                                                                                                                                                                                                    | 8-(3)-1203 |
| 15919    | 4'-Pentylbicyclohexane-4-ol                                                                                                                                                                                                                                                                                | 7-(3)-628  |
| 15920    | Capped polymer of poly{(butyl acrylate)-co-[ $\alpha$ -methylpoly(oxyethylene) acrylate]}-block-poly(4-vinylpyridine) by 2,6-diethyl-4-oxo-2,3,6-trimethylpiperidin-1-oxyl group and 1-phenylethyl group                                                                                                   | 9-1977     |
| 15921    | Poly[1-carboxy-1-methylethylene/(2,6-dioxo-3,5-dimethyloxane-3,5-diyl)methylene/1-methoxycarbonyl-1-methylethylene/1-phenylethylene]                                                                                                                                                                       | 9-1978     |
| 15922    | {Poly[dimethylsiloxane-co-(3-methacryloyloxypropyl)methylsiloxane]-graft-poly(1,3,5-triallyl-1,3,5-triazinane-2,4,6-trione)}-graft-poly[acrylonitrile-co-(2,3-epoxypropyl methacrylate)-co-(methyl methacrylate)-co-styrene]                                                                               | 10-2085    |
| 15923    | Mixture of poly[(2,2-dimethylpropoxysulfonyl)-1,4-phenylene] and poly[(2,2-dimethylpropoxysulfonyl)-1,4-phenylene]-block-poly(oxy-1,4-phenylenesulfonyl-1,4-phenylene)                                                                                                                                     | 10-2086    |
| 15924    | Poly[poly(sulfo-1,4-phenylene)-block-poly(oxy-1,4-phenylenesulfonyl-1,4-phenylene)]<br>[JETOC Recommendation]<br>Poly(sulfo-1,4-phenylene)-block-poly(oxy-1,4-phenylenesulfonyl-1,4-phenylene)                                                                                                             | 10-2087    |
| 15925    | Poly[(1-ethylcyclopentyl methacrylate)-co-(5-oxo-4,8-dioxatricyclo[4.2.1.0 <sup>3,7</sup> ]non-2-yl methacrylate)-co-(4,4-difluoro-5-hydroxy-3-methyl-5-trifluoromethyloxolan-3-yl methacrylate)-co-(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl methacrylate)]                                     | 9-1979     |
| 15926    | Poly[(2-ethoxyethyl methacrylate)-co-(butyl methacrylate)-co-(2-methoxyethyl methacrylate)]                                                                                                                                                                                                                | 9-1980     |
| 15927    | Poly[(2,3-epoxypropyl methacrylate)-co-(2-hydroxypropyl methacrylate)]                                                                                                                                                                                                                                     | 9-1981     |
| 15928    | Poly[(1-(7-oxabicyclo[2.2.1]heptan-2-yl)cyclopentyl methacrylate)-co-(5-oxo-4,8-dioxatricyclo[4.2.1.0 <sup>3,7</sup> ]non-2-yl methacrylate)-co-{3,5-bis[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]cyclohexyl methacrylate}-co-(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl methacrylate)] | 9-1982     |
| 15929    | Poly[(octadecyl methacrylate)-co-[2-(2,3-dihydroxypropoxycarbonylamino)ethyl methacrylate]]                                                                                                                                                                                                                | 9-1983     |
| 15930    | 4,4-Difluoro-5-hydroxy-3-methyl-5-trifluoromethyloxolan-3-yl methacrylate                                                                                                                                                                                                                                  | 8-(4)-1613 |
| 15931    | Poly[(N,N-dimethylaminoethyl methacrylate)-co-(dodecyl methacrylate)-co-(2-hydroxyethyl methacrylate)]                                                                                                                                                                                                     | 9-1984     |
| 15932    | 3,3,3-Trifluoro-2-hydroxy-1,1-dimethyl-2-(trifluoromethyl)propyl methacrylate                                                                                                                                                                                                                              | 2-(6)-1736 |
| 15933    | 3-(tert-Butoxycarbonyloxy)tricyclo[3.3.1.1 <sup>3,7</sup> ]decan-1-yl methacrylate                                                                                                                                                                                                                         | 7-(2)-214  |
| 15934    | Poly[(methacrylic acid)-co-(1-ethylcyclopentyl methacrylate)-co-(5-oxo-4,8-dioxatricyclo[4.2.1.0 <sup>3,7</sup> ]non-2-yl methacrylate)-co-(3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]decan-1-yl methacrylate)]                                                                                            | 9-1985     |
| 15935    | Poly[(methacrylic acid)-co-(cyclohexyl methacrylate)-co-(methyl methacrylate)]                                                                                                                                                                                                                             | 9-1986     |
| 15936    | Poly[(methacrylic acid)-co-(2-hydroxyethyl methacrylate)-co-(benzyl methacrylate)-co-[ $\alpha$ -methylpoly(oxyethylene) methacrylate]]                                                                                                                                                                    | 9-1987     |
| 15937    | Methanedisulfonic acid                                                                                                                                                                                                                                                                                     | 2-(4)-1150 |
| 15938    | 1-Benzylazetid-3-yl methanesulfonate hydrochloride                                                                                                                                                                                                                                                         | 8-(1)-3232 |
| 15939    | 13-Methyloxacyclopentadecan-2-one                                                                                                                                                                                                                                                                          | 8-(4)-1614 |
| 15940    | Benzyl (4S)-4-methyl-5-oxo-1,3-oxazolidine-3-carboxylate                                                                                                                                                                                                                                                   | 8-(7)-1549 |
| 15941    | 1-Allyl 3-methyl (5S)-5-methyl-2,5-dihydropyrrole-1,3-dicarboxylate                                                                                                                                                                                                                                        | 8-(1)-3233 |
| 15942    | $\alpha$ -Methyl- $\omega$ -[3-(trimethoxysilyl)propoxy]poly(oxyethylene)                                                                                                                                                                                                                                  | 10-2088    |
| 15943    | 3-(4-Methylpiperazin-1-yl)propyltriethoxysilane                                                                                                                                                                                                                                                            | 8-(2)-2144 |
| 15944    | (1R)-3-Bromo-1-{3-[tert-butyl(diphenyl)siloxy]propyl}but-3-en-1-yl 4-methylbenzenesulfonate                                                                                                                                                                                                                | 4-(3)-140  |
| 15945    | 4-(5-Methoxy-2-methyl-1,3-benzoxazol-3-ium-3-yl)butanesulfonate                                                                                                                                                                                                                                            | 8-(7)-1550 |
| 15946    | Di-tert-Butyl chloromethyl phosphate                                                                                                                                                                                                                                                                       | 2-(7)-338  |

## 1.3 Miscellaneous

### 1.3.1 Planned amendments of the Order to Designate Poisonous and Deleterious Substances under the PDSL (MHLW)

(Notice of meeting, Committee of Poisonous Substance and Deleterious Substance,  
February 15, 2008)

Committee of Poisonous Substance and Deleterious Substance of Pharmaceutical Affairs and Food Sanitation Council of MHLW plans to amend the Order to Designate Poisonous and Deleterious Substances by designating seven substances as the Poisonous Substance or Deleterious Substance, and eliminating four substances from the list. The first meeting was held on February 29, 2008.

The planned designation and elimination are as follows.

#### 1. Designation of the following substances and mixtures as the Poisonous Substance or Deleterious Substance.

- Benzenesulfonyl chloride and mixtures containing it;
- 1,3-Dichloropropan-2-ol and mixtures containing it;
- 2-Mercaptoethanol and mixtures containing it;
- Isobutyl nitrite and mixtures containing it;
- Isopentyl nitrite and mixtures containing it;
- 2-(Dimethylamino)ethyl methacrylate and mixtures containing it;
- 1-bromo-3-chloropropane and mixtures containing it.

#### 2. Elimination of the following substances and mixtures from the Deleterious Substance.

- Microencapsulated preparations containing not over 12% of 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine 『imidacloprid』 ;
- [2-Acetoxy-(4-diethylamino)benzylidene]malononitrile and mixtures containing it;
- 4-({3-[cyano(2-methylphenyl)methylidene]thiophene-2(3H)-ylidene} aminooxylsufonyl)phenyl p-toluenesulfonate and mixtures containing it;
- (E)-2-(4-tert-butylphenyl)-2-cyano-1-(1,3,4-trimethylpyrazol-5-yl)vinyl 2,2-dimethylpropionate 『cyenopyrafen』 and mixtures containing it.

### 1.3.2 Talks to amend the Japanese PRTR law started

(Minutes of the Joint Committee, October 29, 2007 and January 25, 2008)

Joint committee of MHLW, METI and MOE on the revision of the Japanese PRTR law released a draft proposal to amend the designated substance list (Appendix to the Cabinet Order) based on the survey results of the PRTR reporting and emission and/or toxicity study information of the chemicals. Government started the review activities on February 2007 in

accordance with Article 3 (Review) of the Supplementary Provisions of the Act. The article prescribes that the government shall review the status of enforcement of the Act when seven years have elapsed since the enforcement of the Act.

Total of the candidate substances for the amended Appendix to the Cabinet Order specifying the Class I and Class II Chemical Substances is 633 (current 435). Of them, 520 are Class I (current 354) and 113 are Class II (current 81) Designated Substances.

Details are as follows.

1. Addition of 272 substances to the Designated Chemical Substance List

The committee plans to add 272 substances (and substance groups) to the list of substances subject to the law. 212 of them will be added to the Class I Designated Chemical Substance and 60 of them to the Class II Designated Chemical Substance. (CAS numbers of these chemicals are listed below)

2. Change of the class of the Designated Chemical Substance

- 20 substances out of 81 current Class II Designated Chemical Substances are to be reclassified as the Class I Designated Chemical Substance, while 17 out of 354 current Class I Designated Chemical Substances will be moved to the Class II.
- 1,3-Butadiene, Formaldehyde, 2-Bromopropane are to be designated as Specific Class I Designated Chemical Substance.

3. Elimination of 74 substances from the Designated Chemical Substance List

46 substances will be eliminated from the Designated Chemical Substance List (21 from Class I, and 25 from Class II) and other 28 Class I substances are to be reviewed their designation.

Business enterprises handling a Class I Designated Chemical Substance are required to notify the competent minister of the released and transferred amount of the Class I Designated Chemical Substance in the course of their business activities.

Business enterprises handling any of the Class I or Class II Designated Chemical Substances are obliged to provide MSDS if their product contains any Designated Substance not less than 1% (0.1% in case of Specific Class I Designated Chemical Substances).

CAS numbers of candidate substances to the Designated Chemical Substance

Class I Designated Substance

|          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|
| 53-70-3  | 59-50-7  | 74-89-5  | 75-08-1  | 75-27-4  | 75-52-5  |
| 75-86-5  | 76-03-9  | 77-73-6  | 78-78-4  | 78-84-2  | 79-94-7  |
| 80-15-9  | 80-43-3  | 82-45-1  | 83-32-9  | 84-65-1  | 84-66-2  |
| 88-06-2  | 88-12-0  | 88-60-8  | 88-72-2  | 88-73-3  | 88-74-4  |
| 89-72-5  | 90-43-7  | 91-20-3  | 91-22-5  | 91-23-6  | 91-97-4  |
| 94-11-1  | 95-32-9  | 95-57-8  | 95-63-6  | 95-68-1  | 95-73-8  |
| 95-94-3  | 96-18-4  | 96-29-7  | 96-76-4  | 97-77-8  | 98-54-4  |
| 98-82-8  | 99-04-7  | 99-76-3  | 100-63-0 | 101-80-4 | 101-83-7 |
| 101-84-8 | 101-90-6 | 102-06-7 | 102-82-9 | 103-90-2 | 105-39-5 |
| 106-43-4 | 106-94-5 | 107-11-9 | 107-46-0 | 108-44-1 | 108-94-1 |
| 109-66-0 | 110-00-9 | 110-30-5 | 110-54-3 | 110-82-7 | 110-83-8 |
| 110-91-8 | 111-42-2 | 111-85-3 | 112-02-7 | 112-18-5 | 112-24-3 |

|                                                   |             |             |             |             |             |
|---------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| 112-30-1                                          | 112-41-4    | 112-53-8    | 112-57-2    | 112-80-1    | 115-86-6    |
| 118-75-2                                          | 119-06-2    | 119-47-1    | 119-61-9    | 120-12-7    | 121-44-8    |
| 121-69-7                                          | 121-87-9    | 123-35-3    | 124-28-7    | 124-40-3    | 124-48-1    |
| 127-19-5                                          | 128-04-1    | 128-37-0    | 131-17-9    | 135-19-3    | 138-86-3    |
| 141-32-2                                          | 143-08-8    | 149-30-4    | 149-57-5    | 151-21-3    | 156-62-7    |
| 206-44-0                                          | 218-01-9    | 314-40-9    | 334-48-5    | 420-04-2    | 505-32-8    |
| 541-73-1                                          | 563-47-3    | 581-42-0    | 592-41-6    | 608-93-5    | 611-19-8    |
| 615-05-4                                          | 624-92-0    | 646-06-0    | 674-82-8    | 782-74-1    | 793-24-8    |
| 818-61-1                                          | 822-16-2    | 941-69-5    | 1071-83-6   | 1313-82-2   | 1330-78-5   |
| 1698-60-8                                         | 1763-23-1   | 2426-08-6   | 3173-72-6   | 3268-49-3   | 4016-24-4   |
| 4170-30-3                                         | 4904-61-4   | 4979-32-2   | 5989-27-5   | 7085-19-0   | 7631-99-4   |
| 7696-12-0                                         | 7699-43-6   | 7705-08-0   | 7726-95-6   | 7758-19-2   | 8050-09-7   |
| 9004-82-4                                         | 10222-01-2  | 13684-63-4  | 13048-33-4  | 15263-53-3  | 16721-80-5  |
| 16752-77-5                                        | 16961-83-4  | 17095-24-8  | 17796-82-6  | 19666-30-9  | 20859-73-8  |
| 21087-64-9                                        | 22224-92-6  | 23135-22-0  | 23184-66-9  | 23564-05-8  | 25013-16-5  |
| 25103-58-6                                        | 25339-17-7  | 25376-45-8  | 26447-40-5  | 26628-22-8  | 26761-40-0  |
| 27355-22-2                                        | 29232-93-7  | 30560-19-1  | 31895-21-3  | 36734-19-7  | 39515-41-8  |
| 41394-05-2                                        | 41451-28-9  | 50471-44-8  | 55814-41-0  | 57966-95-7  | 59669-26-0  |
| 60207-90-1                                        | 61788-32-7  | 66332-96-5  | 66841-25-6  | 78587-05-0  | 80844-07-1  |
| 82560-54-1                                        | 83130-01-2  | 85535-84-8  | 88671-89-0  | 95465-99-9  | 98886-44-3  |
| 99485-76-4                                        | 107534-96-3 | 112281-77-3 | 114369-43-6 | 129558-76-5 | 131860-33-8 |
| 133220-30-1                                       | 139920-32-4 | 141517-21-7 | 143390-89-0 | 149877-41-8 | 153197-14-9 |
| 155569-91-8                                       | 158237-07-1 | 173584-44-6 |             |             |             |
| Dichloroaniline (95-76-1, 95-82-9, 626-43-7)      |             |             |             |             |             |
| Dichloronitrobenzene (99-54-7, 611-06-3)          |             |             |             |             |             |
| Trichlorobenzene (108-70-3, 120-82-1, 12002-48-1) |             |             |             |             |             |
| Water soluble salt of (7727-21-1, 7727-54-0)      |             |             |             |             |             |
| Methylnaphthalene (90-12-0, 91-57-6)              |             |             |             |             |             |

#### Class II Designated Substance

|                                         |             |             |             |             |            |
|-----------------------------------------|-------------|-------------|-------------|-------------|------------|
| 51-79-6                                 | 67-72-1     | 72-43-5     | 77-09-8     | 77-47-4     | 79-27-6    |
| 79-43-6                                 | 79-44-7     | 80-51-3     | 81-64-1     | 84-15-1     | 84-61-7    |
| 94-59-7                                 | 95-55-6     | 96-13-9     | 97-02-9     | 99-08-1     | 99-55-8    |
| 99-82-1                                 | 106-51-4    | 106-93-4    | 107-20-0    | 111-65-9    | 118-52-5   |
| 120-36-5                                | 120-83-2    | 126-07-8    | 137-29-1    | 140-11-4    | 143-19-1   |
| 148-79-8                                | 553-26-4    | 558-13-4    | 569-64-2    | 612-83-9    | 760-23-6   |
| 823-40-5                                | 1241-94-7   | 2528-36-1   | 3761-41-9   | 7446-81-3   | 7758-01-2  |
| 10034-93-2                              | 10453-86-8  | 10605-21-7  | 12174-11-7  | 13684-56-5  | 14484-64-1 |
| 21564-17-0                              | 26447-14-3  | 59536-65-1  | 66230-04-4  | 68359-37-5  | 68955-20-4 |
| 82558-50-7                              | 103055-07-8 | 116714-46-6 | 126833-17-8 | 181587-01-9 |            |
| Dinitronaphthalene (602-38-0, 605-71-0) |             |             |             |             |            |

Distributed documents (Japanese) are available at the following websites.

<http://www.meti.go.jp/committee/materials/g80125aj.html>

<http://www.env.go.jp/council/05hoken/yoshi05-06.html>

#### 1.3.3 Status and the revised list of chemicals subject to the Japan Challenge Program

([http://www.meti.go.jp/policy/chemical\\_management/03kanri/g\\_top.htm](http://www.meti.go.jp/policy/chemical_management/03kanri/g_top.htm))

([http://www.env.go.jp/chemi/kagaku/jchallenge/sintyoku/list\\_j.html](http://www.env.go.jp/chemi/kagaku/jchallenge/sintyoku/list_j.html))

METI released the status table of the Japan Challenge Program, a joint initiative of the Japanese Government and industry to collect safety information on the chemicals manufactured or imported more than 1000 tonnes per annum in Japan (“priority chemicals”).

The table includes about 140 chemicals on which the government focuses the activity as these substances are not covered by other programs, such as OECD HPV program and the US Challenge program. Status of industry registration as a sponsor for information gathering and drawing up of the protocol is shown in the following table. The government invites voluntary sponsor registration for about 60 substances on which no industry has registered as a sponsor.

### Current Status of the Japan Challenge Program

April 1, 2008

| CAS No.  | Substance                                                | Sponsor*<br>registered | Protocol |           | Report    |
|----------|----------------------------------------------------------|------------------------|----------|-----------|-----------|
|          |                                                          |                        | drafted  | finalized | finalized |
| 50-70-4  | D-glucitol                                               | ✓                      | ✓        |           |           |
| 56-40-6  | glycine                                                  | ✓                      |          |           |           |
| 58-56-0  | pyridoxine hydrochloride                                 |                        |          |           |           |
| 58-86-6  | xylose, pure                                             | ✓                      | ✓        |           |           |
| 59-51-8  | DL-methionine                                            | ✓                      |          |           |           |
| 62-56-6  | thiourea                                                 | ✓                      | ✓        |           |           |
| 75-07-0  | acetaldehyde                                             | ✓                      | ✓        |           |           |
| 76-06-2  | trichloronitromethane                                    | ✓                      |          |           |           |
| 84-65-1  | anthraquinone                                            | ✓                      |          |           |           |
| 89-32-7  | benzene-1,2:4,5-tetracarboxylic dianhydride              | ✓                      | ✓        |           |           |
| 89-98-5  | 2-chlorobenzaldehyde                                     | ✓                      |          |           |           |
| 91-22-5  | quinoline                                                | ✓                      |          |           |           |
| 91-94-1  | 3,3'-dichlorobenzidine                                   | ✓                      |          |           |           |
| 92-84-2  | phenothiazine                                            |                        |          |           |           |
| 92-88-6  | biphenyl-4,4'-diol                                       | ✓                      | ✓        | ✓         | ✓         |
| 95-13-6  | indene                                                   |                        |          |           |           |
| 95-51-2  | o-chloroaniline                                          |                        |          |           |           |
| 97-36-9  | 2',4'-dimethylacetoacetanilide                           |                        |          |           |           |
| 98-29-3  | 4-tert-butylpyrocatechol                                 | ✓                      |          |           |           |
| 101-43-9 | cyclohexyl methacrylate                                  | ✓                      | ✓        | ✓         |           |
| 104-83-6 | $\alpha$ ,4-dichlorotoluene                              | ✓                      |          |           |           |
| 106-62-7 | 2-(2-hydroxypropoxy)propanol                             |                        |          |           |           |
| 106-94-5 | 1-bromopropane                                           | ✓                      | ✓        |           |           |
| 107-35-7 | taurine                                                  |                        |          |           |           |
| 107-95-9 | $\beta$ -alanine                                         | ✓                      |          |           |           |
| 109-68-2 | pent-2-ene                                               | ✓                      |          |           |           |
| 109-70-6 | 1-bromo-3-chloropropane                                  |                        |          |           |           |
| 109-86-4 | 2-methoxyethanol                                         | ✓                      |          |           |           |
| 110-44-1 | hexa-2,4-dienoic acid                                    |                        |          |           |           |
| 111-17-1 | 3,3'-thiodi(propionic acid)                              | ✓                      | ✓        |           |           |
| 112-16-3 | lauroyl chloride                                         | ✓                      |          |           |           |
| 112-76-5 | stearoyl chloride                                        | ✓                      |          |           |           |
| 116-37-0 | 1,1'-isopropylidenebis(p-phenyleneoxy)dipropyl-2-ol      | ✓                      |          |           |           |
| 122-01-0 | 4-chlorobenzoyl chloride                                 | ✓                      |          |           |           |
| 122-14-5 | O,O'-dimethyl-O-(3-methyl-4-nitrophenyl)phosphorothioate | ✓                      |          |           |           |
| 123-51-3 | 3-methylbutan-1-ol                                       | ✓                      | ✓        | ✓         |           |
| 137-08-6 | calcium pantothenate, D-form                             | ✓                      |          |           |           |
| 141-02-6 | bis(2-ethylhexyl) fumarate                               |                        |          |           |           |
| 422-56-0 | 1,1-dichloro-2,2,3,3,3-pentafluoropropane (HCFC-225ca)   | ✓                      |          |           |           |
| 461-72-3 | hydantoin                                                | ✓                      |          |           |           |
| 507-55-1 | 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)   | ✓                      |          |           |           |
| 517-23-7 | $\alpha$ -acetyl-gamma-butyrolactone                     | ✓                      |          |           |           |
| 533-74-4 | dazomet                                                  | ✓                      |          |           |           |
| 542-18-7 | chlorocyclohexane                                        | ✓                      |          |           |           |
| 542-75-6 | 1,3-dichloropropene                                      | ✓                      |          |           |           |
| 542-92-7 | cyclopentadiene                                          |                        |          |           |           |
| 585-07-9 | tert-butyl methacrylate                                  | ✓                      |          |           |           |
| 585-34-2 | 3-tert-butylphenol                                       |                        |          |           |           |
| 585-88-6 | 4-O- $\alpha$ -D-glucopyranosyl-D-glucitol               | ✓                      | ✓        |           |           |

| CAS No.    | Substance                                                                                      | Sponsor*   | Protocol |           | Report    |
|------------|------------------------------------------------------------------------------------------------|------------|----------|-----------|-----------|
|            |                                                                                                | registered | drafted  | finalized | finalized |
| 590-00-1   | 2,4-hexadienoic acid, potassium salt                                                           |            |          |           |           |
| 591-27-5   | 3-aminophenol                                                                                  |            |          |           |           |
| 626-17-5   | benzene-1,3-dicarbonitrile                                                                     |            |          |           |           |
| 657-27-2   | lysine hydrochloride                                                                           |            |          |           |           |
| 681-84-5   | tetramethoxy silane                                                                            |            |          |           |           |
| 691-37-2   | 4-methylpent-1-ene                                                                             | ✓          |          |           |           |
| 693-57-2   | 12-aminododecanoic acid                                                                        | ✓          | ✓        |           |           |
| 811-97-2   | norflurane                                                                                     |            |          |           |           |
| 814-80-2   | calcium dilactate                                                                              |            |          |           |           |
| 873-94-9   | 3,3,5-trimethylcyclohexan-1-one                                                                |            |          |           |           |
| 901-44-0   | 2,2'-isopropylidenebis(p-phenyleneoxy)diethanol                                                | ✓          |          |           |           |
| 939-97-9   | 4-tert-butylbenzaldehyde                                                                       |            |          |           |           |
| 941-69-5   | N-phenylmaleimide                                                                              | ✓          |          |           |           |
| 1333-16-0  | phenol, methylenebis-                                                                          | ✓          |          |           |           |
| 1445-45-0  | trimethyl orthoacetate                                                                         | ✓          |          |           |           |
| 1459-93-4  | dimethyl isophthalate                                                                          |            |          |           |           |
| 1561-92-8  | sodium 2-methylprop-2-ene-1-sulphonate                                                         |            |          |           |           |
| 2409-55-4  | 2-tert-butyl-p-cresol                                                                          |            |          |           |           |
| 2420-17-9  | 5-(4-hydroxyphenyl)imidazolidine-2,4-dione                                                     |            |          |           |           |
| 2517-43-3  | 3-methoxybutan-1-ol                                                                            | ✓          |          |           |           |
| 2579-20-6  | 1,3-cyclohexanedimethanamine                                                                   | ✓          |          |           |           |
| 2687-91-4  | 1-ethylpyrrolidin-2-one                                                                        |            |          |           |           |
| 2768-02-7  | trimethoxyvinylsilane                                                                          | ✓          |          |           |           |
| 3121-61-7  | 2-methoxyethyl acrylate                                                                        | ✓          |          |           |           |
| 3634-83-1  | 1,3-bis(isocyanatomethyl)benzene                                                               | ✓          | ✓        | ✓         |           |
| 3699-30-7  | potassium diethyldithiocarbamate                                                               |            |          |           |           |
| 3852-09-3  | methyl 3-methoxypropionate                                                                     | ✓          |          |           |           |
| 3896-11-5  | bumetrizole                                                                                    | ✓          |          |           |           |
| 3965-55-7  | sodium dimethyl 5-sulphonatoisophthalate                                                       | ✓          |          |           |           |
| 4016-22-2  | octanoic acid, 2-sulfo-, 1-(2-ethylhexyl) ester, sodium salt                                   | ✓          | ✓        |           |           |
| 4170-30-3  | crotonaldehyde                                                                                 | ✓          |          |           |           |
| 4435-53-4  | 3-methoxybutyl acetate                                                                         | ✓          |          |           |           |
| 5359-04-6  | ethanone, 1-[4-(1-methylethenyl)phenyl]-                                                       |            |          |           |           |
| 5468-75-7  | 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2-methylphenyl)-3-oxobutyramide] | ✓          |          |           |           |
| 5973-71-7  | 3,4-dimethylbenzaldehyde                                                                       | ✓          | ✓        |           |           |
| 6000-44-8  | sodium glycinate                                                                               | ✓          |          |           |           |
| 6132-04-3  | 1,2,3-propanetricarboxylic acid, 2-hydroxy-, trisodium salt, dihydrate                         |            |          |           |           |
| 6143-33-5  | 1,4,4a,9a-tetrahydro-1,4-methanofluorene                                                       |            |          |           |           |
| 6153-56-6  | ethanedioic acid, dihydrate                                                                    | ✓          | ✓        |           |           |
| 6192-52-5  | benzenesulfonic acid, 4-methyl-, monohydrate                                                   |            |          |           |           |
| 6196-95-8  | 4-(1-phenylethyl)-o-xylene                                                                     |            |          |           |           |
| 6362-80-7  | 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene                                      | ✓          |          |           |           |
| 6842-15-5  | 1-propene, tetramer                                                                            |            |          |           |           |
| 6869-07-4  | propanenitrile, 2,2'-hydrazobis[2-methyl-                                                      |            |          |           |           |
| 7059-16-7  | zinc bis(O,O-dioctyl)bis(dithiophosphate)                                                      |            |          |           |           |
| 7299-99-2  | 2,2-bis[(2-ethyl-1-oxohexyloxy)methyl]propane-1,3-diylbis(2-ethylhexanoate)                    |            |          |           |           |
| 8005-02-5  | C.I. Solvent Black 7                                                                           | ✓          |          |           |           |
| 11099-07-3 | octadecanoic acid, ester with 1,2,3-propanetriol                                               | ✓          |          |           |           |
| 13192-40-0 | zinc bis(O,O-di-sec-butyl)bis(dithiophosphate)                                                 |            |          |           |           |
| 14103-61-8 | bis(3,5,5-trimethylhexyl) phthalate                                                            | ✓          |          |           |           |
| 15163-46-9 | sodium o-dodecylbenzenesulphonate                                                              |            |          |           |           |
| 19090-60-9 | adipic acid, ammonium salt                                                                     |            |          |           |           |
| 21539-58-2 | sodium N-methyl-N-(1-oxododecyl)-β-alaninate                                                   |            |          |           |           |
| 22042-59-7 | carbamothioic acid, S,S'-[2-(dimethylamino)-1,3-propanediyl]ester, monohydrochloride           | ✓          |          |           |           |
| 22047-49-0 | 2-ethylhexyl stearate                                                                          | ✓          |          |           |           |
| 24634-61-5 | potassium (E,E)-hexa-2,4-dienoate                                                              |            |          |           |           |
| 24851-98-7 | methyl 3-oxo-2-pentylcyclopentaneacetate                                                       | ✓          | ✓        |           |           |
| 25321-41-9 | xylenesulphonic acid                                                                           | ✓          | ✓        |           |           |
| 26966-75-6 | 3(or 4)-methylbenzene-1,2-diamine                                                              | ✓          |          |           |           |
| 28510-23-8 | 2,2-dimethylpropane-1,3-diyl 2-ethylhexanoate                                                  |            |          |           |           |

| CAS No.     | Substance                                                                                                                                          | Sponsor*   | Protocol |           | Report    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|-----------|-----------|
|             |                                                                                                                                                    | registered | drafted  | finalized | finalized |
| 30899-62-8  | lauric acid, ester with hydroxypropanediyl diacetate                                                                                               | ✓          |          |           |           |
| 36443-68-2  | ethylenebis(oxyethylene)bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]                                                                          |            |          |           |           |
| 38640-62-9  | bis(isopropyl)naphthalene                                                                                                                          | ✓          |          |           |           |
| 40372-72-3  | 4,4,15,15-tetraethoxy-3,16-dioxo-8,9,10,11-tetrathia-4,15-disilaoctadecane                                                                         |            |          |           |           |
| 41317-15-1  | 4-methoxy-N-phenyl-o-toluidine                                                                                                                     | ✓          |          |           |           |
| 53770-52-8  | zinc 3,5-bis(α-methylbenzyl)salicylate                                                                                                             | ✓          |          |           |           |
| 61788-76-9  | alkanes, chloro                                                                                                                                    |            |          |           |           |
| 64771-71-7  | paraffins (petroleum), normal                                                                                                                      |            |          |           |           |
| 68187-89-3  | acid chlorides, coco                                                                                                                               | ✓          |          |           |           |
| 68424-16-8  | fatty acids, C <sub>14-18</sub> and C <sub>16-18</sub> -unsatd., calcium salts                                                                     |            |          |           |           |
| 68479-98-1  | diethylmethylbenzenediamine                                                                                                                        |            |          |           |           |
| 68515-58-2  | 1,2,4-benzenetricarboxylic acid, mixed branched and linear heptyl and nonyl and undecyl esters                                                     | ✓          |          |           |           |
| 68551-15-5  | alkanes, C <sub>8-10</sub> -iso-                                                                                                                   |            |          |           |           |
| 68648-86-2  | benzene, C <sub>4-16</sub> -alkyl derivs.                                                                                                          |            |          |           |           |
| 68784-25-8  | phenol, dodecyl-, sulfurized, carbonates, calcium salts                                                                                            |            |          |           |           |
| 70024-71-4  | benzenesulfonic acid, mono-C <sub>16-24</sub> -alkyl derivs., calcium salts, overbased                                                             |            |          |           |           |
| 73296-89-6  | sulfuric acid, mono-C <sub>12-16</sub> -alkylesters, sodium salts                                                                                  | ✓          |          |           |           |
| 73347-80-5  | disodium 1,4-dihydroanthracene-9,10-diolate                                                                                                        | ✓          |          |           |           |
| 76123-46-1  | acetic acid, calcium magnesium salt                                                                                                                |            |          |           |           |
| 83846-43-9  | benzoic acid, 2-hydroxy-, mono-C <sub>&gt;13</sub> -alkyl derivs., calcium salts (2:1)                                                             |            |          |           |           |
| 84852-53-9  | 1,1'-(ethane-1,2-diyl)bis[pentabromobenzene]                                                                                                       | ✓          |          |           |           |
| 88380-00-1  | dodecanoic acid, sulfophenyl ester, sodium salt                                                                                                    | ✓          | ✓        |           |           |
| 91744-27-3  | glycerides, castor-oil mono-, di- and tri-                                                                                                         | ✓          |          |           |           |
| 91844-80-3  | phosphoric acid, C <sub>13-15</sub> -branched and linear alkyl esters, potassium                                                                   | ✓          | ✓        |           |           |
| 93572-79-3  | xylene distillation residue                                                                                                                        | ✓          |          |           |           |
| 95235-30-6  | phenol, 4-[[4-(1-methylethoxy)phenyl]sulfonyl]-                                                                                                    | ✓          |          |           |           |
| 97468-13-8  | phosphoric acid, C <sub>9-11</sub> -branched and linear alkyl esters, potassium                                                                    | ✓          | ✓        |           |           |
| 103429-90-9 | 3-methyl-3-methoxy butyl acetate                                                                                                                   | ✓          | ✓        | ✓         |           |
| 110615-47-9 | D-glucopyranose, oligomeric, C <sub>10-16</sub> -alkyl glycosides                                                                                  | ✓          |          |           |           |
| 129188-99-4 | phenol, 4,4'-(3,3,5-trimethylcyclohexylidene)bis-                                                                                                  |            |          |           |           |
| 139189-30-3 | phosphoric acid, 1,3-phenylene tetrakis(2,6-dimethylphenyl) ester                                                                                  | ✓          | ✓        |           |           |
| 181028-79-5 | phosphoric trichloride, reaction products with bisphenol A and phenol                                                                              | ✓          |          |           |           |
| 184530-92-5 | poly[oxy(2-chloro-1-methylethoxy) phosphinylidene]oxy-1,2-ethandiyloxy-1,2-ethandiyl], α-(2-chloro-1-methylethyl)-ω-[[bis(2-chloro-1-methylethoxy) | ✓          | ✓        |           |           |

\* Mark ✓ at sponsor column means that at least one company or industry association has registered as a sponsor.

#### 1.3.4 Hazard evaluation reports and risk assessment reports for about 150 chemical substances released

National Institute of Technology and Evaluation, Japan (NITE) released hazard evaluation reports and risk assessment reports for about 150 chemical substances, the study results under the NEDO Comprehensive Chemical Substance Assessment and Management Program. Since 2001 New Energy and Industrial Technology Development Organization (NEDO) has been conducting hazard evaluation and initial risk assessment of chemical substances which are likely to pose high risks especially to human health, and most of which

are subject to the management under the Japanese PRTR law and are estimated to be manufactured or imported more than 1,000 tonnes per year in Japan.

Hazard evaluation reports compile particulars necessary to conduct risk assessment of the substance, including physical and chemical properties, comprehensive toxicity/eco-toxicity information, and generation source, amount, use and emission of the substance reported from industries under the PRTR law and fate in the environment, etc.

Substances for which hazard evaluation reports have been published are listed in the following table. Initial risk assessment reports have also been released for 95 substances (by the end of March 2008) as noted in the table. Environmental risk assessments aimed mainly at aquatic organs for which hazard assessment methods have been internationally well established, and human health studies targeted Japanese general population and did not consider the occupational exposure.

These reports (in Japanese) are available at  
<http://www.safe.nite.go.jp/risk/nedotop.html#syokirisk>.

| No.*                                   | CAS No.    | Substance                                                                                                                                                                                                                                                                                                  | Initial risk assessment report |
|----------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Class I Designated Chemical Substances |            |                                                                                                                                                                                                                                                                                                            |                                |
| 2                                      | 79-06-1    | acrylamide                                                                                                                                                                                                                                                                                                 | Aug.2007                       |
| 3                                      | 79-10-7    | acrylic acid                                                                                                                                                                                                                                                                                               | -                              |
| 4                                      | 140-88-5   | ethyl acrylate                                                                                                                                                                                                                                                                                             | Sep.2007                       |
| 5                                      | 2439-35-2  | 2-(dimethylamino)ethyl acrylate                                                                                                                                                                                                                                                                            | Jul.2007                       |
| 6                                      | 96-33-3    | methyl acrylate                                                                                                                                                                                                                                                                                            | Jan.2008                       |
| 7                                      | 107-13-1   | acrylonitrile                                                                                                                                                                                                                                                                                              | Nov.2005                       |
| 8                                      | 107-02-8   | acrolein                                                                                                                                                                                                                                                                                                   | Feb.2006                       |
| 9                                      | 103-23-1   | bis(2-ethylhexyl) adipate                                                                                                                                                                                                                                                                                  | Oct.2007                       |
| 11                                     | 75-07-0    | acetaldehyde                                                                                                                                                                                                                                                                                               | May.2005                       |
| 12                                     | 75-05-8    | acetonitrile                                                                                                                                                                                                                                                                                               | Nov.2007                       |
| 13                                     | 78-67-1    | 2,2'-azobisisobutyronitrile                                                                                                                                                                                                                                                                                | Dec.2007                       |
| 15                                     | 62-53-3    | aniline                                                                                                                                                                                                                                                                                                    | Aug.2007                       |
| 16                                     | 141-43-5   | 2-aminoethanol                                                                                                                                                                                                                                                                                             | -                              |
| 17                                     | 111-40-0   | N-(2-aminoethyl)-1,2-ethanediamine; diethylenetriamine                                                                                                                                                                                                                                                     | May.2005                       |
| 22                                     | 107-18-6   | allyl alcohol                                                                                                                                                                                                                                                                                              | Dec.2007                       |
| 23                                     | 106-92-3   | 1-allyloxy-2,3-epoxypropane                                                                                                                                                                                                                                                                                | Jul.2005                       |
| 24                                     | -          | n-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)<br>CAS Numbers mentioned in the report:<br>1322-98-1, 1331-61-9, 25155-30-0, 25496-01-9, 26248-24-8,<br>26264-06-2, 27176-87-0, 27177-77-1, 27479-45-4, 27636-75-5,<br>28348-61-0, 29062-27-9, 30776-59-1, 31093-47-7, 50854-94-9,<br>61931-75-7 | Jul.2005                       |
| 28                                     | 78-79-5    | isoprene                                                                                                                                                                                                                                                                                                   | Jul.2005                       |
| 29                                     | 80-05-7    | 4,4'-isopropylidenediphenol; bisphenol A                                                                                                                                                                                                                                                                   | Jul.2005                       |
| 30                                     | 25068-38-6 | polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid); bisphenol A type epoxy resin (liquid)<br>Other CAS Number mentioned in the report: 1675-54-3                                                                                                                                | Feb.2008                       |
| 40                                     | 100-41-4   | ethylbenzene                                                                                                                                                                                                                                                                                               | Jan.2007                       |
| 42                                     | 75-21-8    | ethylene oxide                                                                                                                                                                                                                                                                                             | Sep.2005                       |
| 43                                     | 107-21-1   | ethylene glycol                                                                                                                                                                                                                                                                                            | Jan.2007                       |
| 44                                     | 110-80-5   | ethylene glycol monoethyl ether                                                                                                                                                                                                                                                                            | Nov.2007                       |
| 45                                     | 109-86-4   | ethylene glycol monomethyl ether                                                                                                                                                                                                                                                                           | Nov.2007                       |
| 46                                     | 107-15-3   | ethylenediamine                                                                                                                                                                                                                                                                                            | Dec.2007                       |

| No.* | CAS No.    | Substance                                                                                                                  | Initial risk assessment report |
|------|------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 47   | 60-00-4    | ethylenediaminetetraacetic acid                                                                                            | May.2005                       |
| 54   | 106-89-8   | epichlorohydrin                                                                                                            | Aug.2007                       |
| 56   | 75-56-9    | 1,2-epoxypropane; propylene oxide                                                                                          | Jan.2007                       |
| 57   | 122-60-1   | 2,3-epoxypropyl phenyl ether                                                                                               | -                              |
| 61   | 105-60-2   | epsilon-caprolactam                                                                                                        | Nov.2007                       |
| 63   | 1330-20-7  | xylene<br>Other CAS Numbers mentioned in the report:<br>95-47-6, 106-42-3, 108-38-3                                        | Sep.2005                       |
| 65   | 107-22-2   | glyoxal                                                                                                                    | -                              |
| 67   | 1319-77-3  | cresol<br>Other CAS Numbers mentioned in the report:<br>95-48-7, 106-44-5, 108-39-4                                        | Jul.2007                       |
| 71   | 95-51-2    | o-chloroaniline                                                                                                            | May.2005                       |
| 72   | 106-47-8   | p-chloroaniline                                                                                                            | Jul.2006                       |
| 74   | 75-00-3    | chloroethane                                                                                                               | May.2005                       |
| 77   | 75-01-4    | chloroethylene; vinyl chloride                                                                                             | May.2005                       |
| 80   | 79-11-8    | chloroacetic acid                                                                                                          | Feb.2008                       |
| 91   | 107-05-1   | 3-chloropropene; allyl chloride                                                                                            | Feb.2008                       |
| 93   | 108-90-7   | chlorobenzene                                                                                                              | Jul.2005                       |
| 95   | 67-66-3    | chloroform                                                                                                                 | May.2005                       |
| 96   | 74-87-3    | chloromethane; methyl chloride                                                                                             | May.2005                       |
| 101  | 111-15-9   | 2-ethoxyethyl acetate; ethylene glycol monoethyl ether acetate                                                             | Jan.2008                       |
| 102  | 108-05-4   | vinyl acetate                                                                                                              | Sep.2005                       |
| 103  | 110-49-6   | 2-methoxyethyl acetate; ethylene glycol monomethyl ether acetate                                                           | Feb.2008                       |
| 112  | 56-23-5    | tetrachloromethane                                                                                                         | Jul.2005                       |
| 113  | 123-91-1   | 1,4-dioxane                                                                                                                | May.2005                       |
| 116  | 107-06-2   | 1,2-dichloroethane                                                                                                         | May.2005                       |
| 117  | 75-35-4    | 1,1-dichloroethylene; vinylidene dichloride                                                                                | Nov.2005                       |
| 120  | 101-14-4   | 3,3'-dichloro-4,4'-diaminodiphenylmethane                                                                                  | Nov.2005                       |
| 128  | 89-61-2    | 1,4-dichloro-2-nitrobenzene                                                                                                | -                              |
| 134  | 96-23-1    | 1,3-dichloro-2-propanol                                                                                                    | -                              |
| 135  | 78-87-5    | 1,2-dichloropropane                                                                                                        | May.2005                       |
| 139  | 95-50-1    | o-dichlorobenzene                                                                                                          | May.2005                       |
| 140  | 106-46-7   | p-dichlorobenzene                                                                                                          | Nov.2005                       |
| 145  | 75-09-2    | dichloromethane; methylene dichloride                                                                                      | May.2005                       |
| 157  | 25321-14-6 | dinitrotoluene<br>Other CAS Numbers mentioned in the report:<br>121-14-2, 602-01-7, 606-20-2, 610-39-9, 618-85-9, 619-15-8 | May.2005                       |
| 159  | 122-39-4   | diphenylamine                                                                                                              | -                              |
| 160  | 102-81-8   | 2-(di-n-butylamino)ethanol                                                                                                 | Dec.2007                       |
| 163  | 87-62-7    | 2,6-dimethylaniline                                                                                                        | -                              |
| 166  | 1643-20-5  | N,N-dimethyldodecylamine N-oxide                                                                                           | Apr.2007                       |
| 172  | 68-12-2    | N,N-dimethylformamide                                                                                                      | Jul.2005                       |
| 177  | 100-42-5   | styrene                                                                                                                    | Aug.2007                       |
| 181  | 62-56-6    | thiourea                                                                                                                   | Nov.2005                       |
| 197  | 1163-19-5  | decabromodiphenyl ether                                                                                                    | Jul.2005                       |
| 198  | 100-97-0   | 1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane; hexamethylenetetramine                                            | -                              |
| 200  | 127-18-4   | tetrachloroethylene                                                                                                        | Feb.2006                       |
| 202  | 11070-44-3 | tetrahydromethylphthalic anhydride                                                                                         | -                              |
| 203  | 116-14-3   | tetrafluoroethylene                                                                                                        | Jul.2007                       |
| 205  | 100-21-0   | terephthalic acid                                                                                                          | -                              |
| 206  | 120-61-6   | dimethyl terephthalate                                                                                                     | -                              |
| 208  | 75-87-6    | trichloroacetaldehyde                                                                                                      | Nov.2005                       |
| 210  | 79-00-5    | 1,1,2-trichloroethane                                                                                                      | May.2005                       |
| 211  | 79-01-6    | trichloroethylene                                                                                                          | May.2005                       |
| 222  | 75-25-2    | tribromomethane; bromoform                                                                                                 | Apr.2007                       |
| 223  | 3452-97-9  | 3,5,5-trimethyl-1-hexanol                                                                                                  | -                              |
| 224  | 108-67-8   | 1,3,5-trimethylbenzene                                                                                                     | Jan.2008                       |

| No.* | CAS No.    | Substance                                                                                                                                                                                                                                                                                                                                         | Initial risk assessment report |
|------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 225  | 95-53-4    | o-toluidine                                                                                                                                                                                                                                                                                                                                       | -                              |
| 226  | 106-49-0   | p-toluidine                                                                                                                                                                                                                                                                                                                                       | Jun.2007                       |
| 227  | 108-88-3   | toluene                                                                                                                                                                                                                                                                                                                                           | Jul.2006                       |
| 228  | 95-80-7    | 2,4-toluenediamine                                                                                                                                                                                                                                                                                                                                | Jan.2008                       |
| 231  | 7440-02-0  | nickel                                                                                                                                                                                                                                                                                                                                            | -                              |
| 232  | -          | nickel compounds<br>Substances mentioned in the report:<br>NiO (1313-99-1), Ni <sub>3</sub> S <sub>2</sub> (12035-72-2), NiCl <sub>2</sub> (7718-54-9, 7791-20-0), Ni(NO <sub>3</sub> ) <sub>2</sub> (13138-45-9, 13478-00-7), NiSO <sub>4</sub> (7786-81-4, 10101-97-0), Ni(CH <sub>3</sub> CO <sub>2</sub> ) <sub>2</sub> (373-02-4, 6018-89-9) | -                              |
| 237  | 100-00-5   | p-nitrochlorobenzene                                                                                                                                                                                                                                                                                                                              | May.2005                       |
| 240  | 98-95-3    | nitrobenzene                                                                                                                                                                                                                                                                                                                                      | May.2005                       |
| 241  | 75-15-0    | carbon disulfide                                                                                                                                                                                                                                                                                                                                  | May.2005                       |
| 242  | 25154-52-3 | nonylphenol<br>Other CAS Numbers mentioned in the report:<br>104-40-5, 84852-15-3                                                                                                                                                                                                                                                                 | May.2005                       |
| 251  | 61789-80-8 | bis(hydrogenated tallow)dimethylammonium chloride<br>Other CAS Numbers mentioned in the report:<br>107-64-2, 1812-53-9                                                                                                                                                                                                                            | Oct.2006                       |
| 253  | 302-01-2   | hydrazine                                                                                                                                                                                                                                                                                                                                         | May.2005                       |
| 254  | 123-31-9   | hydroquinone                                                                                                                                                                                                                                                                                                                                      | -                              |
| 255  | 100-40-3   | 4-vinyl-1-cyclohexene                                                                                                                                                                                                                                                                                                                             | -                              |
| 256  | 100-69-6   | 2-vinylpyridine                                                                                                                                                                                                                                                                                                                                   | Nov.2005                       |
| 258  | 110-85-0   | piperazine                                                                                                                                                                                                                                                                                                                                        | Nov.2005                       |
| 259  | 110-86-1   | pyridine                                                                                                                                                                                                                                                                                                                                          | Jun.2007                       |
| 264  | 108-45-2   | m-phenylenediamine                                                                                                                                                                                                                                                                                                                                | -                              |
| 266  | 108-95-2   | phenol                                                                                                                                                                                                                                                                                                                                            | Nov.2005                       |
| 268  | 106-99-0   | 1,3-butadiene                                                                                                                                                                                                                                                                                                                                     | Sep.2005                       |
| 270  | 84-74-2    | di-n-butyl phthalate                                                                                                                                                                                                                                                                                                                              | May.2005                       |
| 272  | 117-81-7   | bis(2-ethylhexyl) phthalate                                                                                                                                                                                                                                                                                                                       | May.2005                       |
| 273  | 85-68-7    | n-butyl benzyl phthalate                                                                                                                                                                                                                                                                                                                          | Jun.2007                       |
| 282  | 95-31-8    | N-(tert-butyl)-2-benzothiazolesulfenamide                                                                                                                                                                                                                                                                                                         | Nov.2005                       |
| 292  | 124-09-4   | hexamethylenediamine                                                                                                                                                                                                                                                                                                                              | -                              |
| 293  | 822-06-0   | hexamethylene diisocyanate                                                                                                                                                                                                                                                                                                                        | -                              |
| 297  | 100-44-7   | benzyl chloride                                                                                                                                                                                                                                                                                                                                   | -                              |
| 298  | 100-52-7   | benzaldehyde                                                                                                                                                                                                                                                                                                                                      | Feb.2008                       |
| 299  | 71-43-2    | benzene                                                                                                                                                                                                                                                                                                                                           | Sep.2007                       |
| 300  | 552-30-7   | 1,2,4-benzenetricarboxylic 1,2-anhydride                                                                                                                                                                                                                                                                                                          | -                              |
| 307  | -          | poly(oxyethylene) alkyl ether (alkyl C=12-15)<br>CAS Numbers mentioned in the report:<br>9002-92-0, 9043-30-5, 24938-91-8, 27306-79-2, 34398-05-5, 66455-14-9, 68002-97-1, 68131-39-5, 68213-23-0, 68551-12-2                                                                                                                                     | Apr.2007                       |
| 308  | 9036-19-5  | poly(oxyethylene) octylphenyl ether                                                                                                                                                                                                                                                                                                               | Oct.2007                       |
| 309  | 9016-45-9  | poly(oxyethylene) nonylphenyl ether                                                                                                                                                                                                                                                                                                               | Jul.2005                       |
| 310  | 50-00-0    | formaldehyde                                                                                                                                                                                                                                                                                                                                      | Feb.2006                       |
| 311  | -          | manganese and its compounds<br>Substances mentioned in the report:<br>Mn (7439-96-5), MnO <sub>2</sub> (1313-13-9), Mn <sub>3</sub> O <sub>4</sub> (1317-35-7), MnCl <sub>2</sub> (7773-01-5), MnSO <sub>4</sub> (7785-87-7), MnCO <sub>3</sub> (598-62-9), KMnO <sub>4</sub> (7722-64-7)                                                         | -                              |
| 312  | 85-44-9    | phthalic anhydride                                                                                                                                                                                                                                                                                                                                | -                              |
| 313  | 108-31-6   | maleic anhydride                                                                                                                                                                                                                                                                                                                                  | -                              |
| 314  | 79-41-4    | methacrylic acid                                                                                                                                                                                                                                                                                                                                  | Jul.2005                       |
| 315  | 688-84-6   | 2-ethylhexyl methacrylate                                                                                                                                                                                                                                                                                                                         | -                              |
| 316  | 106-91-2   | 2,3-epoxypropyl methacrylate                                                                                                                                                                                                                                                                                                                      | -                              |
| 318  | 2867-47-2  | 2-(dimethylamino)ethyl methacrylate                                                                                                                                                                                                                                                                                                               | -                              |
| 320  | 80-62-6    | methyl methacrylate                                                                                                                                                                                                                                                                                                                               | Jan.2008                       |

| No.*                                    | CAS No.    | Substance                                                                                                                     | Initial risk assessment report |
|-----------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 336                                     | 108-99-6   | 3-methylpyridine                                                                                                              | Jul.2007                       |
| 338                                     | 26471-62-5 | methyl-1,3-phenylene diisocyanate; m-tolylene diisocyanate<br>Other CAS Numbers mentioned in the report:<br>91-08-7, 584-84-9 | -                              |
| 340                                     | 101-77-9   | 4,4'-methylenedianiline                                                                                                       | Sep.2007                       |
| 345                                     | 68-11-1    | mercaptoacetic acid                                                                                                           | -                              |
| 350                                     | 62-73-7    | dimethyl 2,2-dichlorovinyl phosphate; dichlorvos; DDVP                                                                        | Jul.2005                       |
| 352                                     | 115-96-8   | tris(2-chloroethyl) phosphate                                                                                                 | -                              |
| 353                                     | 25155-23-1 | tris(dimethylphenyl) phosphate                                                                                                | Jul.2007                       |
| Class II Designated Chemical Substances |            |                                                                                                                               |                                |
| 4                                       | 504-29-0   | 2-aminopyridine                                                                                                               | -                              |
| 22                                      | 106-48-9   | p-chlorophenol                                                                                                                | -                              |
| 41                                      | 103-50-4   | dibenzyl ether                                                                                                                | -                              |
| 69                                      | 57-09-0    | hexadecyltrimethylammonium bromide                                                                                            | -                              |
| 72                                      | 3825-26-1  | ammonium pentadecafluorooctanoate                                                                                             | -                              |
| 74                                      | 60-34-4    | methylhydrazine                                                                                                               | -                              |
| 81                                      | 78-42-2    | tris(2-ethylhexyl) phosphate                                                                                                  | -                              |
| Other substances                        |            |                                                                                                                               |                                |
| -                                       | 75-65-0    | 2-methylpropan-2-ol; (tert-Butylalcohol)                                                                                      | -                              |
| -                                       | 84-61-7    | dicyclohexyl phthalate                                                                                                        | -                              |

\* Substance number in the relevant designated substance lists in the cabinet order.

1.3.5 MOE published a study report of initial environmental risk assessment on some chemical substances (6<sup>th</sup> Report)

(MOE Press release, February 22, 2008)

(<http://www.env.go.jp/chemi/report/h19-03/index.html>)

MOE published the 6th report of the initial environmental risk assessment studies on some industrial chemicals. In 1997 MOE started the studies on chemicals which had not been subject to any risk assessment or risk management. Chemicals were chosen from substances likely to be hazardous to the environment or humans, and deemed necessary to be assessed preferentially. The revised guideline on the initial environmental risk assessment of chemicals was also published (Japanese only).

This report summarizes study results on 21 substances for which initial environmental risk assessments including health and ecological risk assessment were conducted, and the results on 11 substances for which only the initial ecological risk assessment studies were conducted.

Summary of the judgments on 21 substances is as follows.

| Judged Risk Class | Health risk                                                                                                                                                                                                                 | Ecological risk                                                                                                                                                                                                                                                                                                                                            |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                 | -                                                                                                                                                                                                                           | 2,6-Di-t-butyl-4-methylphenol                                                                                                                                                                                                                                                                                                                              |
| B1                | Isopropyl benzene<br>2-Butoxyethanol<br>2-Propanol<br>Methylisobutylketone                                                                                                                                                  | Dicyclohexylamine<br>Perfluorooctanesulfonic acid (PFOS) and its salt                                                                                                                                                                                                                                                                                      |
| B2                | Isophorone<br>Acetic acid, 2-ethoxyethyl-<br>m-Dichlorobenzene<br>Dicyclohexylamine<br>Dicyclopentadiene<br>Triethylamine<br>Perfluorooctanoic acid (PFOA) and its salt<br>Perfluorooctanesulfonic acid (PFOS) and its salt |                                                                                                                                                                                                                                                                                                                                                            |
| C                 | N-Ethylaniline<br>p-Chlorotoluene<br>1,4-Dichloro-2-nitrobenzene<br>3,3'-Dichlorobenzidine<br>2,6-Di-t-butyl-4-methylphenol<br>2,4-Toluenediamine<br>o-Nitrotoluene<br>1-Propanol<br>Methylethylketone                      | Isopropylbenzene<br>Isophorone<br>N-Ethylaniline<br>p-Chlorotoluene<br>Acetic acid, 2-ethoxyethyl-<br>1,4-Dichloro-2-nitrobenzene<br>3,3'-Dichlorobenzidine<br>m-Dichlorobenzene<br>Dicyclopentadiene<br>Triethylamine<br>2,4-Toluenediamine<br>o-Nitrotoluene<br>2-Butoxyethanol<br>1-Propanol<br>2-Propanol<br>Methylisobutylketone<br>Methylethylketone |

A : Substance possibly poses relatively high risk and there is a need for in-depth assessment.

B1: Risk of the substance seems to be lower than A, but there is a need to collect relevant information.

B2: Judgment of the risk from available information is unable, but there is a need to collect relevant information.

C : Risk of the substance seems to be relatively low, and there is no need for further study.

MOE has been conducting the initial environmental assessment study since 1997. Five study reports for 116 chemicals had been published by December 2006.

### 1.3.6 MOE released the Dioxin Emission Inventory 2006

(MOE Press Release, December 18, 2007)

The Dioxin Emission Inventory 2006 was compiled based on the Law Concerning Special Measures against Dioxins. The amount of dioxin emission in Japan from 1997 through 2006 is tabulated below. The dioxin emission in 2006 decreased from 2003 by about 20%, and became 289-317g-TEQ. The target of reduction of the total national emission established in June 2005 is to reduce by 15% below the 2003 level in 2010. The total emission of dioxins in 2006 is 20% lower than in 2003, indicating that the reduction is going well towards the

reduction target.

Dioxin emission in Japan from 1997 through 2006

| Origins                                                   | Emission of Dioxins (g-TEQ/y) |           |           |           |           |         |         |         |         |         |
|-----------------------------------------------------------|-------------------------------|-----------|-----------|-----------|-----------|---------|---------|---------|---------|---------|
|                                                           | 1997                          | 1998      | 1999      | 2000      | 2001      | 2002    | 2003    | 2004    | 2005    | 2006    |
| Incineration Systems                                      |                               |           |           |           |           |         |         |         |         |         |
| Urban Wastes                                              | 5000                          | 1550      | 1350      | 1019      | 812       | 370     | 71      | 64      | 62      | 54      |
| Industrial Wastes                                         | 1505                          | 1105      | 695       | 558       | 535       | 266     | 75      | 70      | 73      | 63      |
| Small size incinerators                                   | 700-1153                      | 700-1153  | 517-848   | 544-675   | 342-454   | 112-135 | 73-98   | 81-103  | 78-102  | 76-101  |
| Industries (steel, zinc, aluminum, etc.)                  | 470                           | 335       | 306       | 268       | 205       | 189     | 149     | 125     | 110     | 93      |
| Others (crematories, tobaccos, automobile emission, etc.) | 4.8-7.4                       | 4.9-7.6   | 4.9-7.7   | 4.9-7.6   | 4.7-7.5   | 4.3-7.2 | 4.4-7.3 | 4.2-7.2 | 4.2-7.2 | 4.0-7.0 |
| Total                                                     | 7680-8135                     | 3695-4151 | 2874-3208 | 2394-2527 | 1899-2013 | 941-967 | 372-400 | 344-369 | 327-354 | 289-317 |

