

**AMADA Group**

**List of Regulated Chemical Substances**



**Ver.1.2**

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## 1. Purpose

The objective of these policies is to maintain or improve the environmental quality of our products; by identifying heavy environmental load usage-banned substances within the content of procurement items (in the products sold or delivered to Amada group customers), and by having this strictly acknowledged within AMADA Group and its suppliers.

## 2. Scope of application

(1) Scope of products:

- 1) All products designed, produced and retailed by AMADA Group;
- 2) All products AMADA Group is outsourced to design / manufacture;
- 3) Promotional products (samples, giveaways, goods, etc.); and
- 4) Packing material, etc. for protection and delivery.

(2) Scope of other parts, ASSY, materials, etc. delivered to AMADA Group:

- 1) Parts (mechanisms, electronics, control components, etc.);
- 2) Materials and components (paint, sheet steel, etc.);
- 3) ASSY mechanism units (hydraulic pumps, mechanical sub-ASSYs, etc.);
- 4) Secondary materials (tape, solder alloys, adhesives, cable ties, electrical wires, air pipings, oil, lubricants, anti-rust oil, etc.);
- 5) Manual, warranty and printed documents delivered with a product;
- 6) Maintenance parts;
- 7) Promotional items (samples, catalogues and promotional goods); and
- 8) Packing materials.

## 3. Definition of Terms

The terms used in this guideline are defined as below.

(1) Usage-banned substances

Substances that are currently banned by domestic or overseas laws, regulations, etc.

(2) Usage-limited substances (REACH regulation Substances of Very High Concern-SVHC)

Substances that must be limited when being used, regulated by the EU REACH regulation.

SVHC: Substances of Very High Concern

(3) Heavy environmental load substances within the content of procurements, etc.

- Indicates substances that were used intentionally on a product (parts, pieces, etc.) and/or substances that remained or were attached to the final product or its parts, pieces, etc. after being used in its manufacturing process.

- Substances that do not remain on the product even if they were used in the manufacturing process are out of scope. Thus, substances included in solvents, cleaning agents, coating solutions, etc., that are used in the manufacturing process, or substances included within the processing machine(s), etc. are not concerned if they are not to remain on the final product.

(4) chemSHERPA

The name given to the new “information communication scheme” developed under the Ministry of Economy, Trade and Industry.

<https://chemsherpa.net/chemSHERPA/>

## 4. Operation

(1) Each operation shall be conducted based on relevant laws and regulations. When the rules and operation contradict, each case must be checked to be in compliance with every requirement such as: treaties, laws, legislations and industrial guidance.

The primary laws and regulations that have been referred to determine the criteria for selection are as follows:

- Chemical Substances Control Law (CSCL)
- Industrial Safety and Health Act
- Poisonous and Deleterious Substances Control Act
- Ozone Layer Protection Act
- RoHS 2 Directive (10 restricted substances)
- Clean Air Act of 1963 (USA)
- Montreal Protocol
- Stockholm Convention on Persistent Organic Pollutants (POPs)
- IEC62474
- REACH Regulation: Substances of Very High Concern (SVHC)
- REACH Regulation Annex XVII  
(Previously 76/769/EEC: [...] restrictions on the marketing and use of certain dangerous substances and preparations)
- TSCA (Toxic Substances Control Act)
- WFD (Waste framework Directive)

(2) Operating with usage-banned substances

- Please comply with regulations for substances if they are designated with value restrictions (thresholds).

(3) Operating with usage-limited substances

·The chemicals listed on REACH Regulation Substances of Very High Concern (SVHC) will be determined as usage-limited substances. If a regulated value (threshold) is designated, their usage is allowed as long as its content is within the regulated value (threshold).

The listed chemical substances could change or be added when domestic or overseas laws, regulations, etc. are revised.

(4) When determining the newest regulated chemical substances over *chemSHERPA*, the determination will be made based on the data below. Please keep your data up to date at all times.

When using *chemSHERPA*, the criteria for limited chemical substances are as listed below:

| Relevant standards for chemical management |                  | Relevant Laws/regulations and industry standards   | Scope of Ver2.06.00.00 (* 1)              |
|--|------------------|--|---|
| ID   | abbr.            |  |   |
| LR01                                       | CSCCL            | (JP)Chemical Substances Control Law:Class Specified Chemical Substances  | 2021-10-22                                |
| LR02                                       | TSCA             | (US) Toxic Substances Control Act(TSCA) :Section 6   | 40 CFR 763                                |
| LR03                                       | ELV              | (EU) Directive 2000/53/EC(ELV):Targetrd Substances   | 2000/53/EC                                |
| LR04                                       | RoHS             | (EU) 2011/65/EU (RoHS) : Annex II  | (EU)2015/863                              |
| LR05                                       | POPs             | (EU) 2019/1021(POPs) : Annex I   | (EU)2021/277                              |
| LR06                                       | SVHC             | (EU) REACH (No1907/2006) :The Candidate List of Substances of SVHC,Annex XIV Authrisation Substances                     | C:2022-06-10, A(EU)2022/586 (*2)          |
| LR07                                       | REACH Annex XVII | (EU) REACH (No1907/2006):Annex XVII Restriction Substances   | (EU)2021/2204 (*3)                        |
| LR08                                       | MDR              | (EU) Medical Devices Regulation (MDR)<br>(EU)2017/745 : Annex I 10.4 Substances  | CLP:(EU) 2022/629, SVHC:2022-06-10, BPR:- |
| LR09                                       | China RoHS       | the Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products | 2016-07-01                                |

|      |          |  |   |
|------|----------|--|---|
| IC01 | GADSL    | Global Automotive Declarable Substance List (GADSL)                | 2022 GADSL<br>Reference<br>List Version 1.0 |
| IC02 | IEC62474 | IEC 62474 DB Declarable substance groups and declarable substances | IEC62474<br>D25.00                          |

(※1)For laws/regulations,the number or date of the latest official Journal related to substance additions/deletions is listed. The substance list is prepared in consideration of the details up to the Official Journal number, the date, or the number listed in Scope.

(※2)Change of the indication, C: Publication day for Candidate List of SVHC, A:An official gazette number for the inclusion in Authorisation List

(※3)(EU)2020/2081 is not included in the criteria.

Criteria of limited chemical substances are updated twice a year.  
Please download, and keep them up to date.

**Table 1. Usage-Banned Substances (Regulated Chemical Substances)**

| № | Substance Group / Name                | CAS №<br>✕for<br>representative<br>CAS№ | Laws / Regulations and Use   |
|---|---------------------------------------|---|--|
| 1 | Cadmium and its compounds             | *7440-43-9                              | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• RoHS</li> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> <p>Plastic colorants / batteries / semiconductor electrical contact and brazing alloy / PVC stabilizers / packaging material paint / ink / plating surface treatment</p>          |
| 2 | Hexavalent chromium and its compounds | *10588-01-9                             | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• RoHS</li> <li>• IEC62474 (Banned)</li> </ul> <p>Plastic colorants / stabilizers / catalysts / packaging material / ink / paint / galvanized chromate treatment / chromium oxidation treatment</p>   |
| 3 | Lead and its compounds                | *7439-92-1                              | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• RoHS</li> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> <p>Storage batteries / wire-coating / lead solder / glass / solder plating surface treatment / paint / packaging material</p>   |
| 4 | Mercury and its compounds             | *7439-97-6                              | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• RoHS</li> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> <p>Dry cell batteries / fluorescent lamps / relay packaging material / colorants / paint / thermometer / ink / electrical contact material / high efficacy luminous substance</p> |

| №  | Substance Group / Name                              | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use  |
|----|---|---|---|
| 5  | Polybrominated biphenyls (PBB)                      | 59536-65-1                              | <ul style="list-style-type: none"> <li>•RoHS</li> <li>•IEC62474 (Banned)</li> <li>•REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> Flame retardants  |
| 6  | Polybrominated diphenyl ether (PBDE)                | *1163-19-5                              | <ul style="list-style-type: none"> <li>•RoHS</li> <li>•IEC62474 (Banned)</li> </ul> Flame retardants  |
| 7  | Di- $\mu$ -oxo-di-n-butylstanniohydroxyborane (DBB) | 75113-37-0                              | <ul style="list-style-type: none"> <li>•REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 8  | Tributyltins (TBT) / triphenyltins (TPT)            | *1803-12-9                              | <ul style="list-style-type: none"> <li>•CSCL (Class II)</li> <li>•IEC62474 (Banned)</li> <li>•REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> Catalysts / vinyl chloride stabilizers / paint / preservatives   |
| 9  | Polychlorinated biphenyls (PCB)                     | 1336-36-3                               | <ul style="list-style-type: none"> <li>•CSCL (Class I)</li> <li>•Industrial Safety and Health Act</li> <li>•Stockholm Convention(POPs)</li> <li>•IEC62474 (Banned)</li> <li>•REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> Old transformers / heat media / carbonless paper / insulating oil / transformer oil |
| 10 | Polychlorinated biphenyls (PCT)                     | 61788-33-8                              | <ul style="list-style-type: none"> <li>•IEC62474 (Banned)</li> <li>•REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> Electrical insulators / insulating oil / heat media  |



| №  | Substance Group / Name   | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use  |
|----|--|---|---|
| 11 | Polychlorinated naphthalenes (PCN) (Cl $\geq$ 2)                                   | *70776-03-3                             | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• IEC62474 (Banned)</li> </ul> Plastic stabilizers / electrical insulator catalysts / lubricating oil / insecticides / preservatives  |
| 12 | Short-chain chlorinated paraffine / chlorinated paraffine (CP) (C $\geq$ 10 to 13) | 85535-84-8                              | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17 (Previously EU76/769/EEC)</li> <li>• Stockholm Convention(POPs)</li> <li>• Montreal Protocol</li> </ul> Vinyl chloride plasticizer / flame retardants        |
| 13 | Asbestos   | *1332-21-4                              | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17 (Previously EU76/769/EEC)</li> </ul> Friction material / heat insulator gasket material / heat insulating brake linings                     |
| 14 | Dioxins / furans (PCDD / PCDF)   | *828-00-2                               | <ul style="list-style-type: none"> <li>• Stockholm Convention(POPs)</li> </ul> Unintentionally produced substances  |
| 15 | Ozone depleting substances   | *The Montreal Protocol Annex A to E     | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• Ozone Layer Protection Act</li> <li>• Clean Air Act of 1963 (USA)</li> <li>• Montreal Protocol</li> <li>• IEC62474 (Banned)</li> </ul> Refrigerants / foaming agents / cleaning agents |
| 16 | Azo compounds that formulate specific amine  | *60-09-3                                | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17 (Previously EU76/769/EEC)</li> </ul> Wire coating materials (pigments / paint / colorants)  |

| №  | Substance Group / Name  | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use   |
|----|---|---|--|
| 17 | 4-Aminodiphenyl<br>(aminodiphenyl and its chlorides)  | 92-67-1                                 | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 18 | Benzidine and its chlorides   | 92-87-5                                 | <ul style="list-style-type: none"> <li>• Industrial Safety and Health Act</li> <li>• REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 19 | N,N'-ditolyl-p-phenylenediamine,<br>N,N'-dixylyl-p-phenylenediamine, or<br>N-toly-N'-xylyl-p-phenylenediamine | *27417-40-9                             | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> </ul> Rubber anti-aging agents   |
| 20 | Hexachlorobenzene (HCB)   | 118-74-1                                | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• Stockholm Convention(POPs)</li> </ul> Insecticides / insect repellents   |
| 21 | 2,4,6-tri-tert-butylphenol  | 732-26-3                                | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• Industrial Safety and Health Act</li> <li>• Stockholm Convention(POPs)</li> <li>• TSCA</li> </ul> Antioxidants |
| 22 | Chlordanes (Heptachlor)   | *57-74-9                                | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• Stockholm Convention(POPs)</li> </ul> Insecticides / insect repellents   |
| 23 | Aldrin  | 309-00-2                                | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• Stockholm Convention(POPs)</li> </ul> Wood preservatives / insecticides / antifungal agents                    |
| 24 | Endrin  | 72-20-8                                 | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• Stockholm Convention(POPs)</li> </ul> Insecticides / insect repellents   |

| №  | Substance Group / Name               | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use  |
|----|--------------------------------------|---|---|
| 25 | Dieldrin                             | 60-57-1                                 | <ul style="list-style-type: none"> <li>· CSCL (Class I )</li> <li>· Stockholm Convention(POPs)</li> </ul> Wood preservatives / insecticides / antifungal agents                                 |
| 26 | 1,1,1-Trichloro-2,2-bis ethane (DDT) | 789-02-6                                | <ul style="list-style-type: none"> <li>· CSCL (Class I )</li> <li>· Stockholm Convention(POPs)</li> </ul> Wood preservatives / insect repellents / Insecticides                                 |
| 27 | Toxaphene                            | 8001-35-2                               | <ul style="list-style-type: none"> <li>· CSCL (Class I )</li> <li>· Stockholm Convention(POPs)</li> </ul>   |
| 28 | Mirex (dodecachloropentacyclo)       | 2385-85-5                               | <ul style="list-style-type: none"> <li>· CSCL (Class I )</li> <li>· Stockholm Convention(POPs)</li> </ul> Insecticides / flame retardants   |
| 29 | Benzene                              | 71-43-2                                 | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> <li>· REACH Annex17 (Previously EU76/769/EEC)</li> </ul> Rubber cement ( $\leq 5\%$ ) solvents / cleaning agents |
| 30 | White phosphorus                     | 12185-10-3                              | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> <li>· REACH Annex17</li> </ul> White phosphorus matches  |
| 31 | 4-nitrodiphenyl and its chlorides    | 92-93-3                                 | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> <li>· REACH Annex17 (Previously EU76/769/EEC)</li> </ul> Synthetic intermediate                                  |
| 32 | Bis(chloromethyl)ether               | 542-88-1                                | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> </ul> Insecticides / insect repellents   |

| №  | Substance Group / Name                                 | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use   |
|----|--|---|--|
| 33 | Chloroethylene (monomer)<br>(vinyl chloride (monomer)) | 75-01-4                                 | <ul style="list-style-type: none"> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul> Synthetic intermediate /<br>synthetic resin / leadwire coating |
| 34 | Bete naphthylamine<br>and its chlorides                | 91-59-8                                 | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>                    |
| 35 | Monomethyl —<br>tetrachlorodiphenyl methane            | 76253-60-6                              | <ul style="list-style-type: none"> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 36 | Monomethyl-dichloro-<br>diphenyl methane               |   | <ul style="list-style-type: none"> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 37 | Hexachloroethane                                       | 67-72-1                                 | <ul style="list-style-type: none"> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 38 | Monomethyl-dibromo-<br>diphenyl methane                | 99688-47-8                              | <ul style="list-style-type: none"> <li>· REACH Annex17<br/>(Previously EU76/769/EEC)</li> </ul>  |
| 39 | Octamethyl<br>pyrophosphoramide                        | 152-16-9                                | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious<br/>Substances Control Act</li> </ul> No commercial goods due to its ban                    |
| 40 | Tetraethyllead   | 1762-26-1                               | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious<br/>Substances Control Act</li> </ul> Gasoline / antiknock agents                           |
| 41 | Diethyl paranitrophenyl<br>thiophosphate               | 56-38-2                                 | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious<br/>Substances Control Act</li> </ul> Insecticides  |
| 42 | Dimethyl ethylmercaptoethyl<br>thiophosphate           | 8022-00-2                               | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious<br/>Substances Control Act</li> </ul> Insecticides  |

| №  | Substance Group / Name  | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use  |
|----|---|---|---|
| 43 | Dimethyl-<br>(dimethyldiethylamido-1-<br>chlorocrotonyl)-phosphate          | 13171-21-6                              | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> No commercial goods due to its ban   |
| 44 | Dimethyl paranitrophenyl<br>thiophosphate                                   | 298-00-0                                | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> No commercial goods due to its ban   |
| 45 | Tetraethyl pyrophosphate  | 107-49-3                                | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> No commercial goods due to its ban   |
| 46 | Monofluoroacetic acid   | 144-49-0                                | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> Pesticides   |
| 47 | Monofluoroacetic acid amide   | 640-19-7                                | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> Insecticides   |
| 48 | Aluminium phosphide and<br>its degradation accelerator                      |   | <ul style="list-style-type: none"> <li>· Poisonous and Deleterious Substances Control Act</li> </ul> Fumigant pesticides  |
| 49 | Alfa naphthylamine<br>and its chlorides                                     |   | <ul style="list-style-type: none"> <li>· Industrial Safety and Health Act</li> </ul> Water and oil repelling treatment  |
| 50 | Perfluorooctane sulfonate<br>(PFOS), its chlorides and<br>related compounds |   | <ul style="list-style-type: none"> <li>· CSCL (Class I )</li> <li>· IEC62474 (Banned)</li> <li>· PFOS Regulation</li> </ul> Processing aid for resins (water repellent / oil repellent / release / emulsification / surfactants, etc.) / cloathings / coatings / resists for semiconductors / etchings for compound semiconductors / metal platings, etc. |

| №  | Substance Group / Name  | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use  |
|----|---|---|---|
| 51 | Perfluorooctanoic acid (PFOA) and its chlorides ester of PFOA |   | <ul style="list-style-type: none"> <li>·CSCL (Class I )</li> <li>·IEC62474 (Banned)</li> <li>·REACH Annex17 (Previously EU76/769/EEC)</li> </ul> Processing aid for fluororesins (water repellent / oil repellent / release / emulsification / surfactants, etc.) |
| 52 | Phthalates di(2-ethylhexyl)phthalate (DEHP)                   | 117-81-7                                | <ul style="list-style-type: none"> <li>·RoHS II</li> <li>·IEC62474 (Banned)</li> </ul> Wire coatings / plastic  |
| 53 | Phthalates butyl benzyl phthalate (BBP)                       | 85-68-7                                 | <ul style="list-style-type: none"> <li>·RoHS II</li> <li>·IEC62474 (Banned)</li> </ul> Architectural: sealing / caulking / sealants   |
| 54 | Phthalates di-n-butyl phthalate (DBP)                         | 84-74-2                                 | <ul style="list-style-type: none"> <li>·RoHS II</li> <li>·IEC62474 (Banned)</li> </ul> Lacquer / adhesives / leather / printing ink / cellophane / dye / manufacturing insecticides / textile lubricants, etc.  |
| 55 | Phthalates diisobutyl phthalate (DIBP)                        | 84-69-5                                 | <ul style="list-style-type: none"> <li>·RoHS II</li> <li>·IEC62474 (Banned)</li> </ul> Plasticizers   |
| 56 | Dibutyltin (DBT) compounds                                    | 818-08-6, etc.                          | <ul style="list-style-type: none"> <li>·IEC62474 (Banned)</li> <li>·REACH Annex17</li> </ul> PVC stabilizers / silicone / curing catalysts for urethane resins  |

| №  | Substance Group / Name                                  | CAS №<br>✳for<br>representative<br>CAS№ | Laws / Regulations and Use   |
|----|---|---|--|
| 57 | Diocetyl tin (DOT) compounds                            | 870-08-6, etc.                          | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17</li> </ul> PVC stabilizers / silicone / curing catalysts for urethane resins |
| 58 | Hexabromocyclododecane (HBCDD)                          | 25637-99-4, etc.                        | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• IEC62474 (Banned)</li> <li>• Stockholm Convention(POPs)</li> </ul> Flame retardants          |
| 59 | Radioactive compounds (Radiation Hazard Prevention Act) | 7440-61-1, etc.                         | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> </ul>  |
| 60 | Nickel / nickel compounds                               | 7440-02-0, etc.                         | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> </ul> Long-term skin-contacting products   |
| 61 | 2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol  | 3846-71-7                               | <ul style="list-style-type: none"> <li>• CSCL (Class I )</li> <li>• IEC62474 (Banned)</li> </ul> Adhesives / paint   |
| 62 | Formaldehyde  | 50-00-0                                 | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> <li>• REACH Annex17</li> </ul> Stabilizers / antioxidants / preservatives / paint                |
| 63 | Polyvinyl chloride (PVC)                                | 9002-86-2                               | <ul style="list-style-type: none"> <li>• IEC62474 (Banned)</li> </ul> Packing material   |
| 64 | Isopropylated phenol phosphate (3:1)                    | 68937-41-7                              | <ul style="list-style-type: none"> <li>• TSCA</li> <li>• IEC62474 (Banned)</li> </ul> Flame-retardant plasticizer of a polyvinyl chloride product/glue/paint/ink |

| №  | Substance Group / Name                | CAS №<br>✖for<br>representative<br>CAS№ | Laws / Regulations and Use   |
|----|---------------------------------------|---|--|
| 65 | Perchlorobuta-1,3-diene               | 87-68-3                                 | <ul style="list-style-type: none"> <li>·CSCL (Class I )</li> <li>·TSCA</li> <li>·Stockholm Convention(POPs)</li> </ul> Agent |
| 66 | 2,3,4,5,6-Pentachlorobenze<br>nethiol | 133-49-3                                | <ul style="list-style-type: none"> <li>·TSCA</li> </ul> Organic rubber chemical<br>(motoren promotion pill)                  |



Table 2. Regulated Chemical Substance Details (Exemplified)

| No | Substance Group                       | Substance Name (JP)         | Exemplified Substance Name (ENG)   | CASNo      | Chemical Formula   |
|----|---------------------------------------|-----------------------------|------------------------------------|------------|--|
| 1  | Cadmium and its compounds             | カドミウム                       | Cadmium                            | 7440-43-9  | Cd   |
|    |                                       | 酸化カドミウム                     | Cadmium oxide                      | 1306-19-0  | CdO  |
|    |                                       | 硫化カドミウム                     | Cadmium sulfide                    | 1306-23-6  | CdS  |
|    |                                       | 塩化カドミウム                     | Cadmium chloride                   | 10108-64-2 | CdCl <sub>2</sub>  |
|    |                                       | 硫酸カドミウム                     | Cadmium sulfate                    | 10124-36-4 | CdSO <sub>4</sub>  |
|    |                                       | 硝酸カドミウム                     | Cadmium nitrate                    | 10325-94-7 | Cd(NO <sub>3</sub> ) <sub>2</sub>                                |
|    |                                       | 炭酸カドミウム                     | Cadmium carbonate                  | 513-78-0   |  |
|    |                                       | 硫化セレンカドミウム                  | Cadmium selenide sulfide           | 12214-12-9 |  |
|    |                                       | セレン化カドミウム                   | Cadmium selenide                   |            |  |
|    |                                       | テルル化カドミウム                   | Cadmium telluride                  | 1306-25-8  |  |
|    |                                       | 水酸化カドミウム                    | Cadmium hydroxide                  | 21041-95-2 |  |
|    |                                       | ステアリン酸カドミウム                 | Cadmium stearate                   | 2223-93-0  | Cd(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub> |
|    |                                       | その他のカドミウム化合物                | Other cadmium compound             |            |  |
| 2  | Hexavalent chromium and its compounds | 重クロム酸ナトリウム                  | Sodium dichromate                  | 10588-01-9 | Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                   |
|    |                                       | 三酸化クロム;(無水クロム(IV)酸)         | Chromium(VI) oxide                 | 1333-82-0  | CrO <sub>3</sub>   |
|    |                                       | クロム酸カルシウム                   | Calcium chromate                   | 13765-19-0 | CaCrO <sub>4</sub>   |
|    |                                       | クロム酸鉛                       | Lead(II) chromate                  | 7758-97-6  | PbCrO <sub>4</sub>   |
|    |                                       | 重クロム酸カリウム                   | Potassium dichromate               | 7778-50-9  | K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                    |
|    |                                       | クロム酸カリウム                    | Potassium chromate                 | 7789-00-6  | K <sub>2</sub> CrO <sub>4</sub>                                  |
|    |                                       | 塩基性クロム酸鉛(Pigment Orange 21) | C.I. Pigment Orange 21             | 1344-38-3  |  |
|    |                                       | 重クロム酸                       | Dichromic acid                     | 13530-68-2 |  |
|    |                                       | クロム酸バリウム                    | Barium chromate                    | 10294-40-3 | BaCrO <sub>4</sub>   |
|    |                                       | クロム酸銅                       | Copper chromite                    | 12053-18-8 |  |
|    |                                       | クロム酸ストロンチウム                 | Strontium chromate                 | 7789-06-2  |  |
|    |                                       | その他の六価クロム化合物                | Other hexavalent chromium compound |            |  |

| No       | Substance Group                | Substance Name (JP)            | Exemplified Substance Name (ENG)        | CASNo                  | Chemical Formula   |
|----------|--------------------------------|--------------------------------|---|------------------------|--|
| 3        | Lead and its compounds         | 鉛                              | Lead                                    | 7439-92-1              | Pb   |
|          |                                | 炭酸鉛                            | Lead(II) carbonate                      | 598-63-0               | PbCO <sub>3</sub>  |
|          |                                | 酸化鉛(Ⅳ)                         | Lead(Ⅳ) oxide                           | 1309-60-0              | PbO <sub>2</sub>   |
|          |                                | 四酸化三鉛                          | Lead(Ⅱ,Ⅳ) oxide                         | 1314-41-6              | Pb <sub>3</sub> O <sub>4</sub>                               |
|          |                                | 硫化鉛(Ⅱ)                         | Lead(Ⅱ) sulfide                         | 1314-87-0              | PbS  |
|          |                                | 酸化鉛(Ⅱ)                         | Lead(Ⅱ) oxide                           | 1317-36-8              | PbO  |
|          |                                | 塩基性炭酸鉛(Ⅱ)                      | Lead(Ⅱ) carbonate basic                 | 1319-46-6              | 2PbCO <sub>3</sub> ·Pb(OH) <sub>2</sub>                      |
|          |                                | 炭酸水酸化鉛<br>(亜炭酸鉛)               | Lead hydroxidcarbonate                  | 1344-36-1              | 2PbCO <sub>3</sub> ·Pb(OH) <sub>2</sub>                      |
|          |                                | 硫酸鉛(Ⅱ)                         | Lead(Ⅱ) sulfate                         | 7446-14-2              | PbSO <sub>4</sub>  |
|          |                                | リン酸鉛(Ⅱ)                        | Lead(Ⅱ) phosphate                       | 7446-27-7              | Pb <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>              |
|          |                                | クロム酸鉛                          | Lead(Ⅱ) chromate                        | 7758-97-6              | PbCrO <sub>4</sub>   |
|          |                                | チタン酸鉛                          | Lead(Ⅱ) titanate                        | 12060-00-3             | PbTiO <sub>3</sub>   |
|          |                                | 硫酸鉛                            | Lead sulfate, sulphuric acid, lead salt | 15739-80-7             | Pb <sub>x</sub> SO <sub>4</sub>                              |
|          |                                | 三塩基性硫酸鉛                        | Lead sulphate, tribasic                 | 12202-17-4             | PbSO <sub>4</sub> ·H <sub>2</sub> O                          |
|          |                                | ステアリン酸鉛                        | Lead stearate                           | 1072-35-1              | Pb(C <sub>17</sub> H <sub>35</sub> COO) <sub>2</sub>         |
|          |                                | 二塩基性ステアリン酸鉛                    | Lead stearate, dibasic                  | 56189-09-4             | 2PbO<br>Pb(C <sub>17</sub> H <sub>35</sub> COO) <sub>2</sub> |
|          |                                | ジルコン酸鉛(Ⅱ)                      | Lead zirconate                          | 12060-01-4             |  |
|          |                                | 水酸化鉛                           | Hydroxylead                             | 1311-11-1              |  |
|          |                                | 酢酸鉛                            | Lead di(acetate)                        | 301-04-2               |  |
|          |                                | 硝酸酸鉛(Ⅱ)                        | Lead(Ⅱ) nitrate                         | 10099-74-8             |  |
| その他の鉛化合物 | Other lead compound            |                                |   |                        |  |
| 4        | Mercury and its compounds      | 水銀                             | Mercury                                 | 7439-97-6              | Hg   |
|          |                                | 塩化第二水銀                         | Mercury(Ⅱ) chloride                     | 7487-94-7              | HgCl <sub>2</sub>  |
|          |                                | 酸化水銀(Ⅱ)                        | Mercury(Ⅱ) oxide                        | 21908-53-2             | HgO  |
|          |                                | 酸化第一水銀                         | Mercury(Ⅰ)oxide                         | 15829-53-5             | Hg <sub>2</sub> O  |
|          |                                | ジメチル水銀                         | Dimethylmercury                         | 593-74-8               |  |
|          |                                | 塩化第一水銀                         | Mercury(Ⅰ)chloride                      | 10112-91-1             | Hg <sub>2</sub> Cl <sub>2</sub>                              |
|          |                                | その他の水銀化合物                      | Other mercury compound                  |                        |  |
| 5        | Polybrominated biphenyls (PBB) | ポリ臭化フェニル;<br>(ポリブロムフェニル)(PBB類) | Polybrominated biphenyls;PBB            | 59536-65-1(67774-32-7) | C <sub>12</sub> H <sub>10x</sub> Br <sub>x</sub> (X=1-10)    |
|          |                                | その他の PBB 類                     | Other polybrominated biphenyl           |                        |  |

| No | Substance Group  | Substance Name (JP)  | Exemplified Substance Name (ENG)  | CASNo      | Chemical Formula               |
|----|--|--|---|------------|--------------------------------|
| 6  | Polybrominated diphenyl ether (PBDE)   | ポリ臭化ジフェニルエーテル(ポリブロモジフェニルエーテル)(ポリブロモジフェニルオキシイト)(ポリブロモジフェニルエーテル)(PBDE;PBDO;PBDE) | Polybromodiphenyl ether;polybromodiphenyl oxide;polybrominated biphenyl ethers;PBDE; PBDO; PBDE |            | $C_{12}H_{10-x}Br_xO$ (X=1-10) |
|    |  | デカブロモジフェニルエーテル;(デカブロモジフェニルオキシイト);(DBDPE;DBDPO)                                 | Decabromodiphenyl ether;decabromodiphenyloxiD BDPE; DBDPO                                       | 1163-19-5  | $C_{12}Br_{10}O$               |
|    |  | テトラブロモジフェニルエーテル  | Tetrabromodiphenyl ethers   | 40088-47-9 |                                |
|    |  | ペンタブロモジフェニルエーテル(ペンタブロモジフェニルオキシイト)  | Pentabromodiphenyl ether;pentabromodiphenyloxiD   | 32534-81-9 | $C_{12}H_5Br_5O$               |
|    |  | ヘキサブロモジフェニルエーテル(ヘキサブロモジフェニルオキシイト)  | Hexabromodiphenyl ether;hexabromodiphenyloxiD   | 36483-60-0 | $C_{12}H_4Br_6O$               |
|    |  | ヘプタブロモジフェニルエーテル  | Heptabromodiphenylether   | 68928-80-3 |                                |
|    |  | オクタブロモジフェニルエーテル(オクタブロモジフェニルオキシイト)(OBDO)  | Octabromodiphenyl ether;octabromodiphenyloxiD   | 32536-52-0 | $C_{12}H_2Br_8O$               |
|    |  | ノナブロモジフェニルエーテル   | Nonabromodiphenylether  | 63936-56-1 |                                |
|    |  | その他の PBDE 類  | Other polybrominated diphenyl ether   |            |                                |
| 7  | Di-μ-oxo-di-n-butylstannio hydroxyborane (DBB) (Specific organic tin compound) | ジ-μ-オキソ-ジ-n-ブチルスタノイオヒト-ロキシボラン;(DBB);(ジ-ブチルスタノイオヒト-水酸化ホウ素)                      | Dibutyltin hydrogen borate  | 75113-37-0 |                                |
| 8  | Tributyltins (TBT) / triphenyltins (TPT) (Organic tin compounds)               | トリフェニルスズ=N,N-ジメチルジチオカルバマート   | Triphenyltin N,N'-dimethyldithiocarbamate   | 1803-12-9  | $(C_6H_5)_3Sn(CH_3)_2NCS_2$    |
|    |  | トリフェニルスズ=フルオリド   | Triphenyltin fluoride   | 379-52-2   | $(C_6H_5)_3SnF$                |
|    |  | トリフェニルスズ=アセタート   | Triphenyltin acetate  | 900-95-8   | $(C_6H_5)_3SnOCOC H_3$         |
|    |  | トリフェニルスズ=クロリド  | Triphenyltin chloride   | 639-58-7   | $(C_6H_5)_3SnCl$               |
|    |  | トリフェニルスズ=ヒドロキシド  | Triphenyltin hydroxide  | 76-87-9    | $(C_6H_5)_3SnOH$               |

| No                               | Substance Group  | Substance Name (JP)   | Exemplified Substance Name (ENG)  | CASNo      | Chemical Formula   |
|----------------------------------|--|---|---|------------|--|
| 8                                | Tributyltins (TBT) / triphenyltins (TPT) 《Organic tin compounds》 | トリアフェニル錫脂肪酸塩(脂肪酸数が9,10 または11 のものに限定)  | Triphenyltin fatty acid salts (C=9-11)  | 47672-31-1 |  |
|                                  |  | トリアフェニル錫クロロアセテート  | Triphenyltin chloroacetate  | 7094-94-2  | (C <sub>6</sub> H <sub>5</sub> ) <sub>3</sub> SnOCOC H <sub>2</sub> Cl   |
|                                  |  | トリブチルスズメタクリレート  | Tributyltin methacrylate  | 2155-70-6  | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnC <sub>4</sub> H <sub>5</sub> O <sub>2</sub>                                       |
|                                  |  | ビス(トリブチルスズ)フマレート  | Bis(tributyltin) fumarate   | 6454-35-9  | C <sub>2</sub> H <sub>2</sub> (COO) <sub>2</sub> ((C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> Sn) <sub>2</sub>                   |
|                                  |  | トリブチルスズフルオライド   | Tributyltin fluoride  | 1983-10-4  | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnF  |
|                                  |  | トリブチルスズ=2,3-ジブロモスクシナート  | Bis(tributyltin) 2,3-dibromosuccinate   | 31732-71-5 | ((C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> Sn) <sub>2</sub> C <sub>2</sub> H <sub>2</sub> (Br) <sub>2</sub> (COO) <sub>2</sub> |
|                                  |  | トリブチルスズアセテート  | Tributyltin acetate   | 56-36-0    | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnOCOC H <sub>3</sub>  |
|                                  |  | トリブチルスズラウレート  | Tributyltin laurate   | 3090-36-6  | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnC <sub>12</sub> H <sub>23</sub> O <sub>2</sub>                                     |
|                                  |  | トリブチルスズフタレート  | Bis(tributyltin) phthalate  | 4782-29-0  | (C <sub>6</sub> H <sub>4</sub> )(COO) <sub>2</sub> ((C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> Sn) <sub>2</sub>                 |
|                                  |  | アルキルアクリレート・メチルメタクリレート・トリブチルスズメタクリレート、共重合物(アルキルアクリレートのアルキル基の炭素数が8のものに限定)                               | Copolymer of alkyl acrylate, methyl methacrylate and tributyltin methacrylate (alkyl; C=8)  |            |  |
|                                  |  | トリブチルスズスルファマート  | Tributyltin sulfamate   | 6517-25-5  | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnSO <sub>3</sub> NH <sub>2</sub>  |
|                                  |  | ビス(トリブチルスズ)マレアート  | Bis(tributyltin) maleate  | 14275-57-1 | C <sub>2</sub> H <sub>2</sub> (COO) <sub>2</sub> ((C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> Sn) <sub>2</sub>                   |
|                                  |  | トリブチルスズクロロリド  | Tributyltin chloride  | 1461-22-9  | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnCl   |
|                                  |  | トリブチルスズシクロペンタンカルボキシレート及びこの類縁化合物の混合物(トリブチルスズナフthenレート)   | Mixture of tributyltin cyclopentanecarboxylate and its analogs (Tributyltin naphthenate)  | 85409-17-2 | (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> SnCO <sub>3</sub> C <sub>5</sub> H <sub>9</sub>                                      |
|                                  |  | トリブチルスズ=1,2,3,4,4a,4b,5,6,10,10a-デカヒドロ-7-イソプロピル-1,4a-ジメチル-1-フェナンチレンカルボキシレート及びこの類縁化合物の混合物(トリブチルスズロジン塩) | Mixture of tributyltin 1,2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1-pheanthlenecarboxylate and its analogs (Tributyltin rosin salt) | 26239-64-5 | C <sub>32</sub> H <sub>56</sub> O <sub>2</sub> Sn  |
|                                  |  | ビス(トリブチルスズ)オキシド;(TBTO)  | Bis(tri-n-butyltin) oxide   | 56-35-9    | O(Sn(C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> ) <sub>2</sub>   |
| その他のトリブチルスズ類(TBT)、トリアフェニル錫類(TPT) | Other Tributyl Tin & Triphenyl Tin                               | -   | -   |            |  |

| No | Substance Group  | Substance Name (JP)                                   | Exemplified Substance Name (ENG)                             | CASNo                                       | Chemical Formula                       |
|----|--|---|--|---|--|
| 9  | Polychlorinated biphenyls (PCB)                                | ポリ塩化ビフェニル;<br>(塩素化ビフェニル)(PCB)                         | PCB; Polychlorinated biphenyls                               | 1336-36-3                                   | $C_{12}H_{10-x}Cl_x$ (X=1-10)          |
| 10 | Polychlorinated biphenyls (PCT)                                | ポリ塩化ターフェニル(PCT)                                       | Polychlorinated terphenyls                                   | 61788-33-8                                  |  |
|    |  | その他の PCB 類/PCT 類                                      | Other PCB/PCT  |   |  |
| 11 | Polychlorinated naphthalenes (PCN) (Cl $\geq$ 2)               | ポリ塩化ナフタレン [塩素数が 3 以上]                                 | Polychlorinated Naphthalenes (Cl $\geq$ 3)                   | 70776-03-3                                  | $C_{10}H_{8-x}Cl_x$ (X $\geq$ 3)       |
|    |  | トリクロロナフタリン  | Trichloronaphthalene   | 1321-65-9                                   | $C_{10}H_5Cl_3$                        |
|    |  | テトラクロロナフタリン   | Tetrachloronaphthalene                                       | 1335-88-2                                   | $C_{10}H_4Cl_4$                        |
|    |  | ペンタクロロナフタリン   | Pentachloronaphthalene                                       | 1321-64-8                                   | $C_{10}H_3Cl_5$                        |
|    |  | オクタクロロナフタリン   | Octachloronaphthalene  | 2234-13-1                                   | $C_{10}Cl_8$                           |
|    |  | その他のポリ塩化ナフタレン [塩素数が 3 以上]                             | Other polychlorinated Naphthalene (Cl $\geq$ 3)              |   |  |
| 12 | Short-chain chlorinated paraffine / chlorinated paraffine (CP) | 塩化パラフィン;(塩素化パラフィン);(クロロパラフィン)...[炭素数10-13, 塩素50wt%以上] | Short-chain Chlorinated paraffine (C10-13, Cl $\geq$ 50 wt%) | 85535-84-8                                  |  |
|    |  | その他の短鎖型塩化パラフィン  | Other Short Chain Chlorinated Paraffin                       |   |  |
| 13 | Asbestos   | アスベスト(総称);(石棉)  | Asbestos   | 1332-21-4<br>(132207-32-0)<br>(132207-33-1) |  |
|    |  | アクチノイト;(陽起石)  | Actinolite   | 77536-66-4                                  |  |
|    |  | アモサイト;(鉄硫酸ネニウム塩);(茶石棉)                                | Amosite  | 12172-73-5                                  | (Mg, Fe) $_3$ Si $_2$ O $_7$ (OH) $_2$ |
|    |  | アンファソライト;(鉄硫酸トリウム塩);(直閃石)                             | Anthophyllite  | 77536-67-5                                  |  |
|    |  | クリソタイル;(単純珪酸マグネシウム塩);(白石綿);(温石棉)                      | Chrysotile   | 12001-29-5                                  | $Mg_3Si_2O_5(OH)_4$                    |

| No | Substance Group | Substance Name (JP)                             | Exemplified Substance Name (ENG)           | CASNo      | Chemical Formula  |
|----|-----------------|---|--|------------|---|
| 13 | Asbestos        | クロソライト(鉄珪酸トリウム塩)(青石綿)                           | Crocidolite                                | 12001-28-4 | $\text{Na}_2\text{Fe}_5(\text{Si}_8\text{O}_{22})(\text{OH})_2$ |
|    |                 | トレモライト  | Tremolite                                  | 77536-68-6 |   |
|    |                 | その他のアスベスト類                                      | Other asbestos                             |            |   |
| 14 | Dioxins         | ダイキシン類(アセトキシン)                                  | dioxins                                    | 828-00-2   |   |
|    |                 | 2,3,7,8-テトラクロロジベンゾ-p-ジキシン(2,3,7,8-TCDD)         | 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | 1746-01-6  | $\text{C}_{12}\text{H}_4\text{Cl}_4\text{O}_2$                  |
|    |                 | 1,2,3,4,7,8-ヘキサクロロジベンゾ-p-ジキシン(1,2,3,4,7,8-HCDD) | 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin     | 39227-28-6 | $\text{C}_{12}\text{H}_2\text{Cl}_6\text{O}_2$                  |
|    |                 | 1,2,3,6,7,8-ヘキサクロロジベンゾ-p-ジキシン                   | Hexachlorodibenzodioxin                    | 34465-46-8 |   |
|    |                 | 1,2,3,7,8,9-ヘキサクロロジベンゾ-p-ジキシン                   | 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin     | 19408-74-3 |   |
|    |                 | 1,2,3,4,6,7,8-ヘプタクロロジベンゾ-p-ジキシン                 | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin  | 35822-46-9 |   |
|    |                 | 1,2,3,7,8-ペンタクロロジベンゾ-p-ジオキシン                    | 1,2,3,7,8-Pentachlorodibenzofuran          | 57117-41-6 |   |
|    |                 | その他のダイキシン類                                      | Other dioxins                              |            |   |

| No | Substance Group            | Substance Name (JP)                            | Exemplified Substance Name (ENG) | CASNo   | Chemical Formula                              |
|----|----------------------------|--|----------------------------------|---|---|
| 15 |                            | CFC<br>(モントリオール議定書附属書 A グループ I :Class I )      |                                  | CFCs(Annex A Group I substances in the Montreal Protocol)     |   |
|    | Ozone depleting substances | CFC-11;<br>(トリクロロフルオロメタン)                      | CFC-11                           | 75-69-4   | CFCl <sub>3</sub>                             |
|    |                            | CFC-12;<br>(ジクロロジフルオロメタン)                      | CFC-12                           | 75-71-8   | CF <sub>2</sub> Cl <sub>2</sub>               |
|    |                            | CFC-113;<br>(トリクロロフルオロエタン)                     | CFC-113                          | 76-13-1   | C <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub> |
|    |                            | CFC-114;<br>(ジクロロテトラフルオロエタン)                   | CFC-114                          | 1320-37-2   | C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub> |
|    |                            | CFC-115;<br>(ペンタフルオロエタン)                       | CFC-115                          | 76-15-3   | C <sub>2</sub> F <sub>5</sub> Cl              |
|    |                            | ハロン<br>(モントリオール議定書附属書 A グループ II :Class I )     |                                  | Halons (Annex A Group II substances in the Montreal Protocol) |   |
|    | Ozone depleting substances | ハロン-1211;<br>(ブromoジフルオロメタン)                   | Halon 1211                       | 353-59-3  | CF <sub>2</sub> BrCl                          |
|    |                            | ハロン-1301;<br>(ブromoフルオロメタン)                    | Halon 1301                       | 75-63-8   | CF <sub>3</sub> Br                            |
|    |                            | ハロン-2402;<br>(ジブromoテトラフルオロエタン)                | Halon 2402                       | 124-73-2  | C <sub>2</sub> F <sub>4</sub> Br <sub>2</sub> |
|    |                            | その他の CFC<br>(モントリオール議定書附属書 B グループ I :Class I ) |                                  | CFCs (Annex B Group I substances in the Montreal Protocol)    |   |
|    | Ozone depleting substances | CFC-13;<br>(カトリフルオロメタン)                        | CFC-13                           | 75-72-9   | CF <sub>3</sub> Cl                            |
|    |                            | CFC-111;<br>(ペンタフルオロエタン)                       | CFC-111                          | 354-56-3  | C <sub>2</sub> FCl <sub>5</sub>               |
|    |                            | CFC-112;<br>(テトラフルオロジフルオロエタン)                  | CFC-112                          | 28605-74-5  | C <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub> |
|    |                            | CFC-211;<br>(ブromoトリフルオロメタン)                   | CFC-211                          | 135401-87-5   | C <sub>3</sub> FCl <sub>7</sub>               |
|    |                            | CFC-212;<br>(トリフルオロジフルオロメタン)                   | CFC-212                          | 3182-26-1   | C <sub>3</sub> F <sub>2</sub> Cl <sub>6</sub> |
|    |                            | CFC-213;<br>(ペンタフルオロトリフルオロメタン)                 | CFC-213                          | 2354-06-5   | C <sub>3</sub> F <sub>3</sub> Cl <sub>5</sub> |

| No                                   | Substance Group            | Substance Name (JP)                                 | Exemplified Substance Name (ENG)               | CASNo  | Chemical Formula   |  |
|--------------------------------------|----------------------------|---|--|--|--|--|
| 15                                   | Ozone depleting substances | CFC-214;<br>1,1,1,3-テトラクロロ-2,2,3,3-テトラフルオロプロパン      | CFC-214  | 2268-46-4  | C <sub>3</sub> F <sub>4</sub> Cl <sub>4</sub>                |  |
|                                      |                            | CFC-215;<br>1,1,1,3-トリクロロ-1,2,2,3,3-ペンタフルオロプロパン     | CFC-215  | 1652-81-9  | C <sub>3</sub> F <sub>5</sub> Cl <sub>3</sub>                |  |
|                                      |                            | CFC-216;<br>1,2-ジクロロ-1,1,2,3,3,3-ヘキサフルオロプロパン        | CFC-216  | 661-97-2   | C <sub>3</sub> F <sub>6</sub> Cl <sub>2</sub>                |  |
|                                      |                            | CFC-217;<br>1-クロロ-1,1,2,2,3,3,3-ヘプタフルオロプロパン         | CFC-217  | 422-86-6   | C <sub>3</sub> F <sub>7</sub> Cl                             |  |
|                                      |                            | 塩化炭素<br>(モントリオール議定書附属書B グループ II :Class1)            |  | Carbon tetrachloride (Annex B Group II substance in the Montreal Protocol)   |  |  |
|                                      | Ozone depleting substances | 四塩化炭素;<br>(テトラクロロタン)                                | Carbon tetrachloride                           | 56-23-5  | CCl <sub>4</sub>   |  |
|                                      |                            | 1,1,1-トリクロロエタン<br>(モントリオール議定書附属書B グループ III :Class1) |  | 1,1,1-trichloroethane (Annex B Group III substance in the Montreal Protocol) |  |  |
|                                      | Ozone depleting substances | 1,1,1-トリクロロエタン                                      | 1,1,1-trichloroethane                          | 71-55-6  | C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>                |  |
|                                      |                            | HBFC<br>(モントリオール議定書附属書C グループ II :Class I )          |  | HBFCs<br>(Annex C Group II substances in the Montreal Protocol)              |  |  |
|                                      | Ozone depleting substances | ジブロモフルオロメタン   | Dibromofluoromethane                           | 1868-53-7  | CHFBr <sub>2</sub>   |  |
|                                      |                            | ブロモジフルオロメタン;<br>(HBFC-22B1)                         | Bromodifluoromethane                           | 1511-62-2  | CHF <sub>2</sub> Br  |  |
|                                      |                            | ブロモフルオロメタン  | Bromofluoromethane                             | 373-52-4   | CH <sub>2</sub> FBr  |  |
|                                      |                            | テトラブロモフルオロエタン                                       | Tetrabromofluoroethane                         | 306-80-9   | C <sub>2</sub> HFBBr <sub>4</sub>                            |  |
|                                      |                            | トリブロモジフルオロエタン                                       | Tribromodifluoroethane                         |  | C <sub>2</sub> HF <sub>2</sub> Br <sub>3</sub>               |  |
|                                      |                            | ジブロモトリフルオロエタン                                       | Dibromotrifluoroethane                         | 354-04-1   | C <sub>2</sub> HF <sub>3</sub> Br <sub>2</sub>               |  |
|                                      |                            | ブロモテトラフルオロエタン                                       | Bromotetrafluoroethane                         | 124-72-1   | C <sub>2</sub> HF <sub>4</sub> Br                            |  |
|                                      |                            | トリブロモフルオロエタン  | Tribromofluoroethane                           |  | C <sub>2</sub> H <sub>2</sub> FBr <sub>3</sub>               |  |
|                                      |                            | ジブロモジフルオロエタン  | Dibromodifluoroethane                          | 75-82-1  | C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>2</sub> |  |
| ブロモトリフルオロエタン;(2-ブロモ-1,1,1-トリフルオロエタン) |                            | Bromotrifluoroethane                                | 421-06-7                                       | C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Br                              |  |  |
| ジブロモフルオロエタン                          |                            | Dibromofluoroethane                                 | 358-97-4                                       | C <sub>2</sub> H <sub>3</sub> FBr <sub>2</sub>                               |  |  |
| ブロモジフルオロエタン                          |                            | Bromodifluoroethane                                 |  | C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Br                              |  |  |
| ブロモフルオロエタン                           |                            | Bromofluoroethane                                   | 762-49-2                                       | C <sub>2</sub> H <sub>4</sub> FBr  |  |  |
| ヘキサブロモフルオロプロパン                       |                            | Hexabromofluoropropane                              |  | C <sub>3</sub> HFBBr <sub>6</sub>  |  |  |
| トリブロモテトラフルオロプロパン                     | Tribromotetrafluoropropane |   | C <sub>3</sub> HF <sub>4</sub> Br <sub>3</sub> |  |  |  |
| ペンタブロモジフルオロプロパン                      | Pentabromodifluoropropane  |   | C <sub>3</sub> HF <sub>2</sub> Br <sub>5</sub> |  |  |  |



| No                         | Substance Group                             | Substance Name (JP)                             | Exemplified Substance Name (ENG)  | CASNo                             | Chemical Formula   |
|----------------------------|---|---|---|-----------------------------------|--|
| 15                         | Ozone depleting substances                  | テトラブロムトリフルオロプロパン                                | Tetrabromotrifluoropropane  |                                   | C <sub>3</sub> HF <sub>3</sub> Br <sub>4</sub>                 |
|                            |   | トリブロムテトラフルオロプロパン                                | Tribromotetrafluoropropane  |                                   | C <sub>3</sub> HF <sub>4</sub> Br <sub>3</sub>                 |
|                            |   | ジブロムペンタフルオロプロパン                                 | Dibromopentafluoropropane   | 431-78-7                          | C <sub>3</sub> HF <sub>5</sub> Br <sub>2</sub>                 |
|                            |   | ブロムヘキサフルオロプロパン                                  | Bromohexafluoropropane  | 2252-79-1                         | C <sub>3</sub> HF <sub>6</sub> Br                              |
|                            |   | ペンタブロムフルオロプロパン                                  | Pentabromofluoropropane   |                                   | C <sub>3</sub> H <sub>2</sub> FBr <sub>5</sub>                 |
|                            |   | テトラブロムディフルオロプロパン                                | Tetrabromodifluoropropane   |                                   | C <sub>3</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>4</sub>   |
|                            |   | トリブロムトリフルオロプロパン                                 | Tribromotrifluoropropane  |                                   | C <sub>3</sub> H <sub>2</sub> F <sub>3</sub> Br <sub>3</sub>   |
|                            |   | ジブロムテトラフルオロプロパン                                 | Dibromotetrafluoropropane   |                                   | C <sub>3</sub> H <sub>2</sub> F <sub>4</sub> Br <sub>2</sub>   |
|                            |   | ブロムペンタフルオロプロパン                                  | Bromopentafluoropropane   | 460-88-8                          | C <sub>3</sub> H <sub>2</sub> F <sub>5</sub> Br                |
|                            |   | テトラブロムフルオロプロパン                                  | Tetrabromofluoropropane   |                                   | C <sub>3</sub> H <sub>3</sub> FBr <sub>4</sub>                 |
|                            |   | トリブロムディフルオロプロパン                                 | Tribromodifluoropropane   | 70192-80-2                        | C <sub>3</sub> H <sub>3</sub> F <sub>2</sub> Br <sub>3</sub>   |
|                            |   | ジブロムトリフルオロプロパン                                  | Dibromotrifluoropropane   | 70192-83-5                        | C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> Br <sub>2</sub>   |
|                            |   | ブロムテトラフルオロプロパン                                  | bromotetrafluoropropane   | 679-84-5                          | C <sub>3</sub> H <sub>3</sub> F <sub>4</sub> Br                |
|                            |   | トリブロムフルオロプロパン                                   | Tribromofluoropropane   | 75372-14-4                        | C <sub>3</sub> H <sub>4</sub> FBr <sub>3</sub>                 |
|                            |   | トリブロムフルオロプロパン                                   | Tribromofluoropropane   | 75372-14-4                        | C <sub>3</sub> H <sub>4</sub> FBr <sub>3</sub>                 |
|                            |   | ジブロムディフルオロプロパン                                  | Dibromodifluoropropane  | 460-25-3                          | C <sub>3</sub> H <sub>4</sub> F <sub>2</sub> Br <sub>2</sub>   |
|                            |   | ブロムトリフルオロプロパン                                   | Bromotrifluoropropane   | 421-46-5                          | C <sub>3</sub> H <sub>4</sub> F <sub>3</sub> Br                |
|                            |   | ジブロムフルオロプロパン                                    | Dibromofluoropropane  | 51584-26-0                        | C <sub>3</sub> H <sub>5</sub> FBr <sub>2</sub>                 |
|                            |   | ブロムディフルオロプロパン                                   | Bromodifluoropropane  |                                   | C <sub>3</sub> H <sub>5</sub> F <sub>2</sub> Br                |
|                            | ブロムフルオロプロパン                                 | Bromofluoropropane                              |   | C <sub>3</sub> H <sub>6</sub> FBr |  |
|                            |   | ブロモクロロメタン<br>(モントリオール議定書附属書 C グループ III:Class I) | Bromochloromethane (Annex C Group III substance in the Montreal Protocol) |                                   |  |
| Ozone depleting substances | ブロモクロロメタン                                   | Chlorobromomethane                              | 74-97-5   | CH <sub>2</sub> BrCl              |  |
|                            |   | 臭化メチル<br>(モントリオール議定書附属書 E:Class I)              | Methyl bromide (Annex E substance in the Montreal Protocol)               |                                   |  |
| Ozone depleting substances | ブロメタン(臭化メチル)<br>(メチルブロミド)                   | Bromomethane; methyl bromide                    | 74-83-9   |                                   |  |
| 16                         | Azo compounds that formulate specific amine | 4-アミノアゾベンゼン                                     | 4-Aminoazobenzene   | 60-09-3                           | C <sub>12</sub> H <sub>11</sub> N <sub>3</sub>                 |
|                            |   | o-アニシジン   | o-anisidine   | 90-04-0                           | C <sub>7</sub> H <sub>9</sub> NO                               |
|                            |   | 2-ナフチルアミン                                       | 2-naphthylamine   | 91-59-8                           | C <sub>10</sub> H <sub>9</sub> N                               |
|                            |   | 3,3'-ジクロロベンジジン                                  | 3,3'-dichlorobenzidine  | 91-94-1                           | C <sub>12</sub> H <sub>10</sub> Cl <sub>2</sub> N <sub>2</sub> |
|                            |   | 4-アミノビフェニル(4-アミノジフェニル)                          | Biphenyl-4-ylamine  | 92-67-1                           | C <sub>12</sub> H <sub>11</sub> N                              |
|                            |   | ベンジジン   | Benzidine   | 92-87-5                           | C <sub>12</sub> H <sub>12</sub> N <sub>2</sub>                 |

| No                          | Substance Group   | Substance Name (JP)   | Exemplified Substance Name (ENG)   | CASNo                                      | Chemical Formula   |
|-----------------------------|---|---|--|--|--|
| 16                          | Azo compounds that formulate specific amine   | o-トルイジン   | o-toluidine  | 95-53-4                                    | C <sub>7</sub> H <sub>9</sub> N                                |
|                             |   | 4-クロロ-2-トルイジン   | 4-chloro-o-toluidine   | 95-69-2                                    | C <sub>7</sub> H <sub>8</sub> ClN                              |
|                             |   | 2,4-トルエレンジアミン   | 2,4-toluenediamine   | 95-80-7                                    | C <sub>7</sub> H <sub>10</sub> N <sub>2</sub>                  |
|                             |   | o-アミノアゾトルエン   | o-aminoazotoluene  | 97-56-3                                    | C <sub>14</sub> H <sub>15</sub> N <sub>3</sub>                 |
|                             |   | 5-ニトロ-o-トルイジン   | 5-nitro-o-toluidine  | 99-55-8                                    | C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>    |
|                             |   | 3,3'-ジクロロ-4,4'-ジアミノジフェニルメタン   | 3,3'-dichloro-4,4'-diaminodiphenylmethane  | 101-14-4                                   | C <sub>13</sub> H <sub>12</sub> Cl <sub>2</sub> N <sub>2</sub> |
|                             |   | 4,4'-メチレンジアニリン  | 4,4'-methylenedianiline  | 101-77-9                                   | C <sub>13</sub> H <sub>14</sub> N <sub>2</sub>                 |
|                             |   | 4,4'-ジアミノジフェニルエーテル  | 4,4'-diaminodiphenylether  | 101-80-4                                   | C <sub>12</sub> H <sub>12</sub> N <sub>2</sub> O               |
|                             |   | p-クロロアニリン   | p-chloroaniline  | 106-47-8                                   | C <sub>6</sub> H <sub>6</sub> ClN                              |
|                             |   | 3,3'-ジメチルベンジジン  | 3,3'-dimethoxybenzidine  | 119-90-4                                   | C <sub>14</sub> H <sub>16</sub> N <sub>2</sub> O <sub>2</sub>  |
|                             |   | 3,3'-ジメチルベンジジン  | 3,3'-dimethylbenzidine   | 119-93-7                                   | C <sub>14</sub> H <sub>16</sub> N <sub>2</sub>                 |
|                             |   | 2-メチル-5-メチルアニリン   | 2-methoxy-5-methylaniline  | 120-71-8                                   | C <sub>8</sub> H <sub>11</sub> NO                              |
|                             |   | 2,4,5-トリメチルアニリン   | 2,4,5-trimethylaniline   | 137-17-7                                   | C <sub>9</sub> H <sub>13</sub> N                               |
|                             |   | 4,4'-チオジアニリン  | 4,4'-thiodianiline   | 139-65-1                                   | C <sub>12</sub> H <sub>12</sub> N <sub>2</sub> S               |
| 2,4-ジアミノアニリン                | 4-methoxy-m-phenylenediamine  | 615-05-4  | C <sub>7</sub> H <sub>10</sub> N <sub>2</sub> O  |  |  |
| 4,4'-ジアミノ-3,3'-ジメチルジフェニルメタン | 4,4'-methylenedi-o-toluidine  | 838-88-0  | C <sub>15</sub> H <sub>18</sub> N <sub>2</sub>   |  |  |
| 17                          | 4-Aminodiphenyl (aminodiphenyl and its chlorides)   |   | 4-Aminodiphenyl  |  |  |
| 18                          | Benzidine and its chlorides   | ベンジジン   | Benzidine  | 92-87-5                                    |  |
| 19                          | N,N'-ditolyl-p-phenylenediamine, N,N'-dixylyl-p-phenylenediamine, or N-toly-N'-xylyl-p-phenylenediamine | N,N'-ジトルル-p-フェニレンジアミン、<br>N,N'-ジキシリル-p-フェニレンジアミン<br>又は<br>N,N'-ジキラル-p-フェニレンジアミン | N,N'-ditolyl-p-phenylenediamine<br>N,N'-dixylyl-p-phenylenediamine<br>N-toly-N'-xylyl-p-phenylenediamine | 27417-40-9<br>(28726-30-9)<br>(70290-05-0) |  |
| 20                          | Hexachlorobenzene (HCB)   | ヘキサクロロベンゼン  | Hexachlorobenzene  | 118-74-1                                   | C <sub>6</sub> Cl <sub>6</sub>                                 |
| 21                          | 2,4,6-tri-tert-butylphenol  | 2,4,6-トリ-tert-ブチルフェノール(TTBP)  | 2,4,6-tri-tert-butylphenol   | 732-26-3                                   |  |

| No | Substance Group                     | Substance Name (JP)  | Exemplified Substance Name (ENG)   | CASNo              | Chemical Formula                               |
|----|-------------------------------------|--|--|--------------------|--|
| 22 | Chlordanes (Heptachlor)             | 124.56.7.8.8-オクタクロロ-2.3.3a.4.7.7a-ヘキサヒドロ-4.7-メタノ-1H-インデン及びこれらの変異体化合物の混合物(別名カロデン又はヘプタクロル) | Chlordane, or Heptachlor   | 57-74-9 (76-44-8)  |  |
| 23 | Aldrin                              | アルドリン(1.2.3.4.10.10-ヘキサクロロ-1.4.4a.5.8.8a-ヘキサヒドロ-エポキシ-1.4-エンド-5.8-ジメチルナフタレン)              | 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-exo-1,4-end-5,8-dimethanonaphthalene (synonym: Aldrin)                | 309-00-2           |  |
| 24 | Endrin                              | エンドリン(1.2.3.4.10.10-ヘキサクロロ-6.7-エポキシ-1.4.4a.5.6.7.8.8a-オクタヒドロ-1.4-エンド-5.8-ジメチルナフタレン)      | 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-end-1,4-end-5,8-dimethyanonaphthalene (synonym: Endrin) | 72-20-8            |  |
| 25 | Dieldrin                            | ディルドリン(1.2.3.4.10.10-ヘキサクロロ-6.7-エポキシ-1.4.4a.5.6.7.8.8a-オクタヒドロ-1.4-エンド-5.8-ジメチルナフタレン)     | Dimethylsulfamoylchloride  | 60-57-1            |  |
| 26 | 1,1,1-Trichloro-2,2-bisethane (DDT) | 1.1.1-トリクロロ-2.2-ビスエタン(DDT)(クロロフェニル)(ジクロロジフェニルメチルエタン)                                     | DDT  | 50-29-3(789-02-06) | C <sub>14</sub> H <sub>9</sub> Cl <sub>5</sub> |
| 27 | Toxaphene                           | トキサフェン(トリクロロ-2.2-ジメチル-3-メチルペンチシクロ[2.2.1]ヘプタン)  | Polychloro-2,2-dimethyl-3-methylidenebicyclo [2.2.1]heptane (synonym: Toxaphene)                                       | 8001-35-2          |  |
| 28 | Mirex (dodecachloropentacyclo)      | マイレックス(トデカクロロオクタヒドロ-1,3,4-メチノ-2H-シクロブタ(c,d)ペンタレン)  | Mirex(Perchlordecone);Dodecachlorooctahydro-1,3,4-metheno-2H-cycrobuta(cd)pentylene                                    | 2385-85-5          | C <sub>10</sub> Cl <sub>12</sub>               |
| 29 | Benzene                             | ベンゼン   | Benzene  | 71-43-2            |  |
| 30 | White phosphorus                    | 黄磷   | White phosphorus   | 12185-10-3         |  |

| No | Substance Group  | Substance Name (JP)                          | Exemplified Substance Name (ENG)                                | CASNo      | Chemical Formula |
|----|--|--|---|------------|------------------|
| 31 | 4-nitrodiphenyl and its chlorides                          | 4-ニトロジフェニル及びその塩                              | 4-nitrodiphenyl   | 92-93-3    |                  |
| 32 | Bis(chloromethyl)ether                                     | ビス(クロロメチル)エーテル                               | Bis(chloromethyl)ether  | 542-88-1   |                  |
| 33 | Chloroethylene (monomer) (vinyl chloride (monomer))        | クロエチレン(モノマー)<br>(塩ビモノマー)                     | Chloro-1-ethylene (monomer vinyl chloride)                      | 75-01-4    |                  |
| 34 | Bete naphthylamine and its chlorides                       | βナフチルアミン及びその塩                                | Bete naphthylamine  | 91-59-8    |                  |
|    |  | 2ナフチルアミン、βナフチルアミン                            | 2-naphthylamine   | 91-59-8    |                  |
| 35 | Monomethyl — tetrachlorodiphenyl methane                   | モノメチル-テトラクロロジフェニルメタン;(Ugilec141)             | Monomethyl — tetrachlorodiphenyl methane Trade name: Ugilec 141 | 76253-60-6 |                  |
| 36 | Monomethyl-dichloro-diphenyl methane                       | モノメチル-ジクロロジフェニルメタン;(Ugilec121)               | UGILEC121   |            |                  |
| 37 | Hexachloroethane   | ヘキサクロロエタン                                    | Hexachloroethane  | 67-72-1    |                  |
| 38 | Monomethyl-dibromo-diphenyl methane                        | モノメチルジブロモジフェニルメタン (DBBT)                     | Monomethyl-dibromo-diphenyl methane Trade name: DBBT            | 99688-47-8 |                  |
| 39 | Octamethyl pyrophosphoramide                               | オクタメチルピロホスファミアイド;(シユテガン)                     | Schradan  | 152-16-9   |                  |
| 40 | Tetraethyllead   | 四アルキル鉛                                       | Ethyltrimethyl lead   | 1762-26-1  |                  |
| 41 | Diethyl paranitrophenyl thiophosphate                      | ジエチルパラニトロフェニルチオホスフェイト;(パチオン)(エチルパチオン)        | O, O-Diethyl O-(4-nitrophenyl) phosphorothioate                 | 56-38-2    |                  |
| 42 | Dimethyl ethylmercapto ethyl thiophosphate                 | ジメチルエチルメルカプトエチルチオホスフェイト;(メチルジメトン)            | Demeton-methyl  | 8022-00-2  |                  |
| 43 | Dimethyl-(dimethyldiethylamido-1-chlorocrotonyl)-phosphate | ジメチル(ジメチルジエチルアミド-2-クロロクロトン)チオホスフェイト;(メスアミドン) | Phosphamidon  | 13171-21-6 |                  |

| No            | Substance Group   | Substance Name (JP)              | Exemplified Substance Name (ENG) | CASNo    | Chemical Formula                               |
|---------------|---|----------------------------------|----------------------------------|----------|--|
| 44            | Dimethyl paranitrophenyl thiophosphate                                | ジメチルパラニトロフェニルチオホスフェイト(メチルパラチオン)  | Parathion, methyl-               | 298-00-0 |  |
| 45            | Tetraethyl pyrophosphate  | テトラエチルピロホスフェイト;(TEPP)            | TEPP                             | 107-49-3 |  |
| 46            | Monofluoroacetic acid   | モノフルオール酢酸                        | Acetic acid, fluoro-             | 144-49-0 |  |
| 47            | Monofluoroacetic acid amide   | モノフルオール酢酸アミド                     | 2-fluoroacetamide                | 640-19-7 |  |
| 48            | Aluminium phosphide and its degradation accelerator                   | リン化アルミニウムとその分解促進剤(ホストキン)         | Aluminium phosphide              |          |  |
| 49            | Alfa naphthylamine and its chlorides                                  | α-ナフチルアミン及びその塩                   | Alfa naphthylamine               | 134-32-7 |  |
| 50            | Perfluorooctane sulfonate (PFOS), its chlorides and related compounds | パーフルオロオクタンスルホン酸(PFOS)及びその塩、類縁化合物 | Perfluorooctane sulfonate        |          | C <sub>8</sub> F <sub>17</sub> SO <sub>3</sub> |
| 51            | Perfluorooctanoic acid (PFOA) and its chlorides ester of PFOA         | パーフルオロオクタンスルホン酸(PFOS)及びその塩、類縁化合物 | Perfluorooctanoic acid           |          | C <sub>7</sub> F <sub>15</sub> COOH            |
| 52<br>~<br>55 | Phthalates  | フタル酸ジ-2-エチルヘキシル(DEHP)            | DEHP(Di(2-ethylhexyl) phthalate) | 117-81-7 | C <sub>24</sub> H <sub>38</sub> O <sub>4</sub> |
|               |   | フタル酸ブチルベンジル(BBP)                 | BBP<br>Butyl benzyl phthalate    | 85-68-7  | C <sub>19</sub> H <sub>20</sub> O <sub>4</sub> |
|               |   | フタル酸ジ-n-ブチル(DBP)                 | Dibutyl phthalate                | 84-74-2  | C <sub>16</sub> H <sub>22</sub> O <sub>4</sub> |
|               |   | フタル酸ジイソブチル(DIBP)                 | Diisobutyl phthalate             | 84-69-5  | C <sub>16</sub> H <sub>22</sub> O <sub>4</sub> |

| No | Substance Group   | Substance Name (JP)  | Exemplified Substance Name (ENG)  | CASNo  | Chemical Formula |
|----|---|--|---|--|------------------|
| 56 | Dibutyltin (DBT) compounds                              | ジブチルスズオキシド<br>ジブチルスズ二酢酸<br>ジブチル(1-オキソドデシル)オキシスズ<br>マレイン酸ジ-n-ブチルスズ        | Stannane, dibutyloxo-Dibutyltin di(acetate)<br>Stannane, dibutylbis[(1-oxododecyl)oxy]-Dibutyltin maleate                   | 818-08-6<br>1067-33-0<br>77-58-7<br>78-04-6                                    |                  |
| 57 | Diocetyl tin (DOT) compounds                            | ジオクチルスズオキシド<br>ジオクチルヒス(1-オキソドデシル)オキシスズ                                   | Di-n-octyltin oxide<br>Diocetyl tin dilaurate   | 870-08-6<br>3648-18-8  |                  |
| 58 | Hexabromocyclododecane (HBCDD)                          | ヘキサブロムシクロドデカン<br>α-HBCDD<br>β-HBCD<br>γ-HBCD<br>1,2,5,6,9,10-HBCDD       | Hexabromocyclododecane<br>α-HBCDD<br>β-HBCD<br>γ-HBCD<br>1,2,5,6,9,10-HBCDD   | 25637-99-4<br>134237-50-6<br>134237-51-7<br>134237-52-8<br>3194-55-6           |                  |
| 59 | Radioactive compounds (Radiation Hazard Prevention Act) | ウラン-238<br>ラドン:Rn<br>アメリシウム-241<br>トリウム-232<br>セシウム-137<br>ストロンチウム-90    | Uranium-238<br>Radon: Rn<br>Americium 241<br>Thorium-232<br>Caesium-137<br>Strontium-90                                     | 7440-61-1<br>10043-92-2<br>14596-10-2<br>7440-29-1<br>10045-97-3<br>10098-97-2 |                  |
| 60 | Nickel / nickel compounds                               | ニッケル<br>酸化ニッケル<br>塩化ニッケル<br>硫酸ニッケル<br>C.I.ピグメントイエロー53<br>C.I.ピグメントグリーン50 | Nickel<br>Nickel(III) oxide<br>Nickel(II) chloride<br>Nickel(II) sulfate<br>C.I. Pigment Yellow 53<br>C.I. Pigment Green 50 | 7440-02-0<br>1313-99-1<br>7718-54-9<br>7786-81-4<br>8007-18-9<br>68186-85-6    |                  |
| 61 | 2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol  | 2-(2H-1,2,3-ベンゾトリアゾール-2-yl)-4,6-ジ-tert-ブチルフェノール                          | 2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol  | 3846-71-7  |                  |
| 62 | Formaldehyde  | ホルムアルデヒド   | Formaldehyde  | 50-00-0  |                  |
| 63 | Polyvinyl chloride (PVC)                                | ポリ塩化ビニル(PVC)   | Polyvinyl chloride (PVC)  | 9002-86-2  |                  |

**Table 3. Usage-Limited Substances (REACH Regulation Substances of Very High Concern (SVHC) List)**

| No | Substance Name  | Substance Name (Japanese)               | CAS No                   | ECHA Release Date            |
|----|---|---|--------------------------|------------------------------|
| 1  | 4,4'- Diaminodiphenylmethane (MDA)                          | 4,4'-メチレンジ アニリン                         | 101-77-9                 | Oct. 28 <sup>th</sup> , 2008 |
| 2  | 5-tert-butyl-2,4,6-trinitro-m-xylene(Musk xylene)           | 1-tert-ブチル-3,5-ジメチル-2,4,6-トリニトロベンゼン     | 81-15-2                  |                              |
| 3  | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) | クロロアルカン(C=10~13)<br>別名:塩素化パラフィン(C10-13) | 85535-84-8               |                              |
| 4  | Anthracene  | アントラセン<br>別名:パナフタレン                     | 120-12-7                 |                              |
| 5  | Benzyl butyl phthalate (BBP)                                | フタル酸ベンジルブチル                             | 85-68-7                  |                              |
| 6  | Bis (2-ethylhexyl)phthalate (DEHP)                          | フタル酸ビス(2-エチルヘキシル)                       | 117-81-7                 |                              |
| 7  | Bis(tributyltin) oxide (TBTO)                               | ビス(トリブチルスズ)オキシド                         | 56-35-9                  |                              |
| 8  | Cobalt dichloride   | 塩化コバルト(CoCl <sub>2</sub> )              | 7646-79-9                |                              |
| 9  | Diarsenic pentaoxide  | 五酸化二ヒ素(As <sub>2</sub> O <sub>5</sub> ) | 1303-28-2                |                              |
| 10 | Diarsenic trioxide  | 三酸化二ヒ素                                  | 1327-53-3                |                              |
| 11 | Dibutyl phthalate (DBP)                                     | フタル酸ジブチル                                | 84-74-2                  |                              |
| 12 | Hexabromocyclododecane (HBCDD)                              | ヘキサブロモシクロドデカン(HBCDD)                    | -                        |                              |
|    | Hexabromocyclododecane                                      | ヘキサブロモシクロドデカン                           | 25637-99-4               |                              |
|    | 1,2,5,6,9,10-hexabromocyclododecane                         | 1,2,5,6,9,10-ヘキサブロモシクロドデカン              | 3194-55-6                |                              |
|    | alpha-hexabromocyclododecane                                | アルファヘキサブロモシクロドデカン                       | 134237-50-6              |                              |
|    | beta-hexabromocyclododecane                                 | ベータヘキサブロモシクロドデカン                        | 134237-51-7              |                              |
|    | gamma-hexabromocyclododecane                                | ガンマヘキサブロモシクロドデカン                        | 134237-52-8              |                              |
| 13 | Lead hydrogen arsenate                                      | ヒ酸水素鉛(II)                               | 7784-40-9                | Jan. 13 <sup>th</sup> , 2010 |
| 14 | Sodium dichromate   | 重クロム酸ナトリウム                              | 10588-01-9,<br>7789-12-0 |                              |
| 15 | Triethyl arsenate   | ヒ酸トリエチル                                 | 15606-95-8               |                              |
| 16 | 2,4-dinitrotoluene  | 2,4-ジニトロトルエン                            | 121-14-2                 |                              |
| 17 | Anthracene oil  | アントラセン油                                 | 90640-80-5               |                              |
| 18 | Anthracene oil, anthracene paste                            | アントラセン油(アントラセンペースト)                     | 90640-81-6               |                              |
| 19 | Anthracene oil, anthracene paste, anthracene fraction       | アントラセン油(アントラセンペースト、アントラセン留分)            | 91995-15-2               |                              |

| No | Substance Name  | Substance Name (Japanese)        | CAS No                           | ECHA Release Date            |
|----|---|----------------------------------|----------------------------------|------------------------------|
| 20 | Anthracene oil, anthracene paste, distn. lights             | アントラセン油(アントラセンペースト、軽蒸留)          | 91995-17-4                       | Jan. 13 <sup>th</sup> , 2010 |
| 21 | Anthracene oil, anthracene-low                              | アントラセン油(アントラセン低含有)               | 90640-82-7                       |                              |
| 22 | Diisobutyl phthalate  | フタル酸ジイソブチル                       | 84-69-5                          |                              |
| 23 | Lead chromate   | クロム酸鉛                            | 7758-97-6                        |                              |
| 24 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104) | 硫酸モリブデン酸クロム酸鉛                    | 12656-85-8                       |                              |
| 25 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)          | C.I.ピグメントイエロー 34                 | 1344-37-2                        |                              |
| 26 | Pitch, coal tar, high-temp.                                 | 高温コールタールピッチ                      | 65996-93-2                       |                              |
|    | Tris(2-chloroethyl) phosphate                               | リン酸トリス(2-クロロエチル)                 | 115-96-8                         | Mar. 30 <sup>th</sup> , 2010 |
| 28 | Acrylamide  | アクリルアミド                          | 79-06-1                          |                              |
| 29 | Ammonium dichromate   | ヘキサキソドニクロム酸二アンモニウム               | 7789-09-5                        | Jun. 18 <sup>th</sup> , 2010 |
| 30 | Boric acid  |                                  | -                                |                              |
|    | Boric acid, crude natural                                   | 柞酸                               | 11113-50-1                       |                              |
|    | Boric acid  | 柞酸                               | 10043-35-3                       |                              |
| 31 | Disodium tetraborate, anhydrous                             | 七酸化二ナトリウム四柞素五水和物(四柞酸二ナトリウム・十水和物) | 12179-04-3, 1303-96-4, 1330-43-4 |                              |
| 32 | Potassium chromate  | テトラオキソドクロム酸二カリウム                 | 7789-00-6                        |                              |
| 33 | Potassium dichromate  | ヘキサキソドニクロム酸二カリウム                 | 7778-50-9                        |                              |
| 34 | Sodium chromate   | クロム酸ナトリウム                        | 7775-11-3                        |                              |
| 35 | Tetraboron disodium heptaoxide, hydrate                     | 七酸化二ナトリウム四柞素水和物                  | 12267-73-1                       |                              |
| 36 | Trichloroethylene   | トリクロロエチレン                        | 79-01-6                          |                              |
| 37 | 2-ethoxyethanol   | 2-エトキシエタノール                      | 110-80-5                         | Dec. 15 <sup>th</sup> , 2010 |
| 38 | 2-methoxyethanol  | 2-メトキシエタノール                      | 109-86-4                         |                              |
| 39 | Acids generated from chromium trioxide and their oligomers  |                                  | -                                |                              |
|    | Dichromic acid  | クロム酸                             | 7738-94-5                        |                              |
|    | Oligomers of chromic acid and dichromic acid                |                                  | -                                |                              |
|    | Chromic acid  | 重クロム酸                            | 13530-68-2                       |                              |
| 40 | Chromium trioxide   | 酸化クロム(VI)                        | 1333-82-0                        |                              |
| 41 | Cobalt(II) carbonate  | 炭酸コバルト(II)                       | 513-79-1                         |                              |
| 42 | Cobalt(II) diacetate  | 酢酸コバルト(II)                       | 71-48-7                          |                              |
| 43 | Cobalt(II) dinitrate  | 硝酸コバルト(II)                       | 10141-05-6                       |                              |
| 44 | Cobalt(II) sulphate   | 硫酸コバルト(II)                       | 10124-43-3                       |                              |



| No | Substance Name  | Substance Name (Japanese)                   | CAS No              | ECHA Release Date            |
|----|---|---|---------------------|------------------------------|
| 45 | 1,2,3-trichloropropane  | 1,2,3-トリクロロプロパン                             | 96-18-4             | Jun. 20 <sup>th</sup> , 2011 |
| 46 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich    | ジアルキル(C=6、7(主成分)、8、分岐型)=フタレート               | 71888-89-6          |                              |
| 47 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | ジアルキル(C=7~11、分岐、線型)=フタレート/フタル酸ジアルキル(C=6~20) | 68515-42-4          |                              |
| 48 | 1-Methyl-2-pyrrolidone (NMP)  | 1-メチル-2-ピロリドン                               | 872-50-4            |                              |
| 49 | 2-ethoxyethyl acetate   | 酢酸 2-エトキシエチル                                | 111-15-9            |                              |
| 50 | Hydrazine   | ヒドラジン、ヒドラジノー水和物                             | 302-01-2, 7803-57-8 |                              |
| 51 | Strontium chromate  | クロム酸ストロンチウム                                 | 7789-06-2           | Dec. 19 <sup>th</sup> , 2011 |
| 52 | 1,2-dichloroethane  | 1,2-ジクロロエタン                                 | 107-06-2            |                              |
| 53 | 2,2'-dichloro-4,4'-methylenedianiline                                   | 2,2'-ジクロロ-4,4'-メチレンジアニリン                    | 101-14-4            |                              |
| 54 | 2-Methoxyaniline, o-Anisidine   | 2-メトキシアニリン[別名:o-アニジン]                       | 90-04-0             |                              |
| 55 | 4-(1,1,3,3-tetramethylbutyl) phenol                                     | 4-(2,4,4-トリメチルヘキサン-2-イル)フェノール               | 140-66-9            |                              |
| 56 | Aluminosilicate Refractory Ceramic Fibres                               | アルミノ珪酸塩、耐火セラミック繊維                           | -                   |                              |
| 57 | Arsenic acid  | ヒ酸;オルトヒ酸                                    | 7778-39-4           |                              |
| 58 | Bis(2-methoxyethyl) ether   | 1-メトキシ-2-(2-メトキシエトキシ)エタン/ジエチレングリコールジメチエーテル  | 111-96-6            |                              |
| 59 | Bis(2-methoxyethyl) phthalate   | ビス(2-メトキシエチル)=フタレート/フタル酸ジメトキシエチル            | 117-82-8            |                              |
| 60 | Calcium arsenate  | ビス(ヒ酸)三カルシウム                                | 7778-44-1           |                              |
| 61 | Dichromium tris(chromate)   | トリス(クロム酸)二クロム(III)                          | 24613-89-6          |                              |
| 62 | Formaldehyde, oligomeric reaction products with aniline                 | ホルムアルデヒドとアニリンの重合物                           | 25214-70-4          |                              |
| 63 | Lead diazide, Lead azide  | ニアジド 化鉛(II)/アジド 化鉛(II)                      | 13424-46-9          |                              |
| 64 | Lead dipicrate  | 鉛(II)=ジピクレート/ピクリン酸鉛(II)                     | 6477-64-1           |                              |
| 65 | Lead styphnate  | 鉛(II)=2,4,6-トリニトロベンゼン-1,3-ジオレート             | 15245-44-0          |                              |
| 66 | N,N-dimethylacetamide   | N,N-ジメチルアセトアミド                              | 127-19-5            |                              |
| 67 | Pentazinc chromate octahydroxide  | クロム酸八水酸化五亜鉛                                 | 49663-84-5          |                              |
| 68 | Phenolphthalein   | フェノールフタレイン                                  | 77-09-8             |                              |
| 69 | Potassium hydroxyoctaoxidizincatedichromate                             | ビス(クロム酸)水酸化二亜鉛(II)カリウム                      | 11103-86-9          |                              |
| 70 | Trilead diarsenate  | ビス(ヒ酸)三鉛(II)/ヒ酸鉛(II)                        | 3687-31-8           |                              |
| 71 | Zirconia Aluminosilicate Refractory Ceramic Fibres                      | ジルコニアアルミノ珪酸塩、耐火セラミック繊維                      | -                   |                              |

| No | Substance Name  | Substance Name (Japanese)  | CAS No      | ECHA Release Date            |
|----|---|--|-------------|------------------------------|
| 72 | 1,2-bis(2-methoxyethoxy) ethane (TEGDME, triglyme)  | トリエチレング <sup>°</sup> リコールジ <sup>°</sup> メチルエーテル /1,2-bis(2-Methoxyethoxy)ethane  | 112-49-2    | Jun. 18 <sup>th</sup> , 2012 |
| 73 | 1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)   | 1,2-ジ <sup>°</sup> メトキシエタン/エチレング <sup>°</sup> リコールジ <sup>°</sup> メチルエーテル   | 110-71-4    |                              |
| 74 | 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)  | 1,3,5-トリス(オキシラン—2—イルメチル)-1,3,5-トリアジン—2,4,6-トリアン  | 2451-62-9   |                              |
| 75 | 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)   | 1,3,5-トリス(2,3-エポキシプロピル)トリアジン—2,4,6-トリアン(別名 1,3,5-トリス(2,3-エポキシプロピル)-1,3,5-トリアジン—2,4,6(1H,3H,5H)—トリアン)                                     | 59653-74-6  |                              |
| 76 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol   | ビス[4—(ジ <sup>°</sup> メチルアミノ)フェニル][4—(メチルアミノ)フェニル]メタノール   | 561-41-1    |                              |
| 77 | 4,4'-bis(dimethylamino) benzophenone (Michler's ketone)   | ビス[4—(ジ <sup>°</sup> メチルアミノ)フェニル]メタン /4,4'-ビス(ジ <sup>°</sup> メチルアミノ)ベンゾフェノン  | 90-94-8     |                              |
| 78 | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)                  | ジ <sup>°</sup> メチル(4—{[4—(ジ <sup>°</sup> メチルアミノ)フェニル]メチリデン}シクロヘキサ—2,5—ジエン—1—イリデン)アンモニウムクロリド (別名:クリスタルバ <sup>°</sup> イオレット)               | 548-62-9    |                              |
| 79 | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) | ジ <sup>°</sup> メチル(4—{(4—アニリノ—1—ナフチル)[4—(ジ <sup>°</sup> メチルアミノ)フェニル]メチリデン}シクロヘキサ—2,5—ジエン—1—イリデン)アンモニウムクロリド (別名:ヘ <sup>°</sup> イシク ブル—26) | 2580-56-5   |                              |
| 80 | Diboron trioxide  | 三酸化二硼素   | 1303-86-2   |                              |
| 81 | Formamide   | ホルムアミド   | 75-12-7     |                              |
| 82 | Lead(II) bis(methanesulfonate)  | 鉛(II)=ジ <sup>°</sup> メタンスルホネート   | 17570-76-2  |                              |
| 83 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)  | N,N,N',N'-テトラメチル-4,4'-メチレンジ <sup>°</sup> アニリン  | 101-61-1    |                              |
| 84 | α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)  | (4-アニリノ-1-ナフチル){[4—(ジ <sup>°</sup> メチルアミノ)フェニル]}メタノール (別名:ソルベント ブル—4)  | 6786-83-0   |                              |
| 85 | 1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear   | ジ <sup>°</sup> ペンチル(分枝および直鎖)=フタレート<br>別名 :bis-C5-alkyl-(linear and branched)phthalate  | 84777-06-0  | Dec. 19 <sup>th</sup> , 2012 |
| 86 | 1,2-diethoxyethane  | エチレング <sup>°</sup> リコールジ <sup>°</sup> エチルエーテル(別名:1,2-ジ <sup>°</sup> エトキシエタン、ジ <sup>°</sup> エチルセロソルフ)                                     | 629-14-1    |                              |
| 87 | 1- bromopropane (n-propyl bromide)  | 1-ブ <sup>°</sup> ロモ <sup>°</sup> プロパン (別名:臭化 n-ブ <sup>°</sup> プロピル)  | 106-94-5    |                              |
| 88 | 2- ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine   | 3-エチル-2-イソ <sup>°</sup> プロピル-2-メチル-1,3-オキサゾリジン   | 143860-04-2 |                              |
| 89 | 4,4'-methylenedi-o-toluidine  | 4,4'-メチレンビス(オトルイジン), 4,4'-メチレンビス(2-メチルアニリン)  | 838-88-0    |                              |
| 90 | 4,4'-oxydianiline and its salts   | 4,4'-オキシジ <sup>°</sup> アニリンとその塩  | -           |                              |
|    | 4,4'-oxydianiline   | 4,4'-オキシジ <sup>°</sup> アニリン/4,4'-ジ <sup>°</sup> アミノジ <sup>°</sup> フェニルエーテル   | 101-80-4    |                              |

| No  | Substance Name   | Substance Name (Japanese)                                | CAS No     | ECHA Release Date            |
|-----|--|--|------------|------------------------------|
| 91  | 4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated               | エトキシ化 4-(1,1,3,3-テトラメチルブチル)フェノール                         | -          | Dec. 19 <sup>th</sup> , 2012 |
| 92  | 4-aminoazobenzene  | 4-(フェニルジアゼン)アニリン/P-(フェニルジアゼン)アニリン(別名:P-アミノアゾベンゼン)        | 60-09-3    |                              |
| 93  | 4-methyl-m-phenylenediamine (toluene-2,4-diamine)              | 2,4-ジメチルアニリン   | 95-80-7    |                              |
| 94  | 4-Nonylphenol, branched and linear                             | 直鎖および分岐 4-ノニルフェノール                                       | -          |                              |
| 95  | 6-methoxy-m-toluidine (p-cresidine)                            | 6-メトキシ-m-トルイジン   | 120-71-8   |                              |
| 96  | [Phthalato(2-)]dioxotrilead                                    | シロキソ(フタラト)三鉛/フタル酸鉛                                       | 69011-06-9 |                              |
| 97  | Acetic acid, lead salt, basic                                  | 塩基性酢酸鉛   | 51404-69-4 |                              |
| 98  | Biphenyl-4-ylamine   | ビフェニル-4-イルアミン/4-アミノビフェニル                                 | 92-67-1    |                              |
| 99  | Bis(pentabromophenyl)ether (decabromodiphenyl ether) (DecaBDE) | デカブロモジフェニルエーテル   | 1163-19-5  |                              |
| 100 | Cyclohexane-1,2-dicarboxylic anhydride                         | ヘキサヒドロフタル酸無水物  | -          |                              |
|     | Trans-cyclohexane-1,2-dicarboxylic anhydride                   | rel(3aR,7aR)-ヘキサヒドロイソフタルン-1,3-ジオン/シス-1,2-シクロヘキサジカルボン酸無水物 | 14166-21-3 |                              |
|     | Cis-cyclohexane-1,2-dicarboxylic anhydride                     | Rel(3aR,7aS)-ヘキサヒドロイソフタルン-1,3-ジオン/無水ヘキサヒドロフタル酸           | 13149-00-3 |                              |
|     | Cyclohexane-1,2-dicarboxylic anhydride                         | 8-オキサビシクロ[4.3.0]ノナン-7,9-ジオン/無水ヘキサヒドロフタル酸                 | 85-42-7    |                              |
| 101 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)       | C,C'-ジアゼンジイルジメタンアミド/アゾジカルボキサミド                           | 123-77-3   |                              |
| 102 | Dibutyltin dichloride (DBTC)                                   | ジブチルスズジクロライド   | 683-18-1   |                              |
| 103 | Diethyl sulphate   | 硫酸ジエチル   | 64-67-5    |                              |
| 104 | Diisopentyl phthalate  | ジイソペンチル=フタラト/フタル酸ジイソペンチル                                 | 605-50-5   |                              |
| 105 | Dimethyl sulphate  | 硫酸ジメチル   | 77-78-1    |                              |
| 106 | Dinoseb (6-sec-butyl-2,4-dinitrophenol)                        | ジノセブ(6-sec-ブチル-2,4-ジニトロフェノール)                            | 88-85-7    |                              |
| 107 | Dioxobis(stearato)trilead                                      | ジオキソビス(ステアリン酸)三鉛   | 12578-12-0 |                              |
| 108 | Fatty acids, C16-18, lead salts                                | 脂肪酸(C16-C18)と鉛の塩   | 91031-62-8 |                              |
| 109 | Furan  | フラン  | 110-00-9   |                              |
| 110 | Henicosafuoroundecanoic acid                                   | ヘルフオロウンデカン酸  | 2058-94-8  |                              |
| 111 | Heptacosafuorotetradecanoic acid                               | ヘルフオロテトラデカン酸   | 376-06-7   |                              |

| No  | Substance Name  | Substance Name (Japanese)  | CAS No      | ECHA Release Date                  |
|-----|---|--|-------------|------------------------------------|
| 112 | Hexahydromethylphthalic anhydride                     | メチルヘキサヒド <sup>ロ</sup> 無水フタル酸   | -           | Dec.<br>19 <sup>th</sup> ,<br>2012 |
|     | Hexahydro-4-methylphthalic anhydride                  | 3-メチル-8-オキサヒ <sup>ド</sup> シクロ[4.3.0]ナン-7,9-ジ <sup>ン</sup> オン;4-メチルシクロヘキサン-1,2-ジ <sup>ン</sup> カルボ <sup>ン</sup> 酸無水物 | 19438-60-9  |                                    |
|     | Hexahydro-3-methylphthalic anhydride                  | 2-メチル-8-オキサヒ <sup>ド</sup> シクロ[4.3.0]ナン-7,9-ジ <sup>ン</sup> オン   | 57110-29-9  |                                    |
|     | Hexahydro-1-methylphthalic anhydride                  | 1-メチル-8-オキサヒ <sup>ド</sup> シクロ[4.3.0]ナン-7,9-ジ <sup>ン</sup> オン   | 48122-14-1  |                                    |
|     | Hexahydromethylphthalic anhydride                     | メチル-8-オキサヒ <sup>ド</sup> シクロ[4.3.0]ナン-7,9-ジ <sup>ン</sup> オン;メチルヘキサヒド <sup>ロ</sup> 無水フタル酸                            | 25550-51-0  |                                    |
| 113 | Lead bis(tetrafluoroborate)                           | ホフ化鉛:四フ化ホ酸鉛(II)  | 13814-96-5  |                                    |
| 114 | Lead cyanamidate                                      | シアミド <sup>ン</sup> 鉛  | 20837-86-9  |                                    |
| 115 | Lead dinitrate  | 硝酸鉛;硝酸鉛(II)  | 10099-74-8  |                                    |
| 116 | Lead monoxide (lead oxide)                            | 一酸化鉛;酸化鉛(II)   | 1317-36-8   |                                    |
| 117 | Lead oxide sulfate                                    | 酸化硫酸二鉛;塩基性硫酸鉛  | 12036-76-9  |                                    |
| 118 | Lead titanium trioxide                                | チタン酸鉛  | 12060-00-3  |                                    |
| 119 | Lead titanium zirconium oxide                         | 三酸化ジ <sup>ル</sup> コニウムチタン鉛;チタン酸ジ <sup>ル</sup> コニウム鉛  | 12626-81-2  |                                    |
| 120 | Methoxyacetic acid                                    | メキシ酢酸  | 625-45-6    |                                    |
| 121 | Methyloxirane (Propylene oxide)                       | 酸化プロピレン  | 75-56-9     |                                    |
| 122 | N,N-dimethylformamide                                 | N,N-ジ <sup>メチルホルムアミド</sup> ;ジ <sup>メチルホルムアミド</sup>   | 68-12-2     |                                    |
| 123 | N-methylacetamide                                     | N-メチルアセトアミド <sup>ン</sup>   | 79-16-3     |                                    |
| 124 | N-pentyl-isopentylphthalate                           | イソペンチル=ペンチル=フタレート;フタル酸 N-ペンチル-イソペンチル   | 776297-69-9 |                                    |
| 125 | O-aminoazotoluene                                     | 2-メチル-4-(2-トリルシ <sup>ン</sup> アゼ <sup>ニル</sup> )アニリン;(別名:4-(o-トリルアゾ <sup>ニル</sup> )-o-トリルジ <sup>ン</sup> )           | 97-56-3     |                                    |
| 126 | O-toluidine   | o-トリルジ <sup>ン</sup>  | 95-53-4     |                                    |
| 127 | Orange lead (lead tetroxide)                          | 四酸化三鉛  | 1314-41-6   |                                    |
| 128 | Pentacosafuorotridecanoic acid                        | ペルフルオロトリデカン酸   | 72629-94-8  |                                    |
| 129 | Pentalead tetraoxide sulphate                         | 四酸化硫酸五鉛;塩基性硫酸鉛   | 12065-90-6  |                                    |
| 130 | Pyrochlore, antimony lead yellow                      | C.I. ヒ <sup>ク</sup> メント イロ- 41   | 8012-00-8   |                                    |
| 131 | Silicic acid (H2Si2O5), barium salt (1:1), lead-doped | ケイ酸とバリウムの塩(1:1)(鉛ド <sup>ープ</sup> )   | 68784-75-8  |                                    |
| 132 | Silicic acid, lead salt                               | ケイ酸と鉛の塩  | 11120-22-2  |                                    |
| 133 | Sulfurous acid, lead salt, dibasic                    | 亜硫酸と鉛の塩(二塩基性);塩基性亜硫酸鉛  | 62229-08-7  |                                    |
| 134 | Tetraethyllead  | テトラエチル鉛;四エチル鉛  | 78-00-2     |                                    |
| 135 | Tetralead trioxide sulphate                           | 三酸化硫酸四鉛;塩基性硫酸鉛;三塩基性硫酸鉛(Pb4O3(SO4))   | 12202-17-4  |                                    |

| No  | Substance Name   | Substance Name (Japanese)  | CAS No     | ECHA Release Date                  |
|-----|--|--|------------|------------------------------------|
| 136 | Tricosafuorododecanoic acid  | ヘールフルオロドデカン酸<br>(別名:トリコサフルオロドデカン酸)   | 307-55-1   | Dec.<br>19 <sup>th</sup> ,<br>2012 |
| 137 | Trilead bis(carbonate) dihydroxide   | ジカルボナト(ジヒドロキシ)<br>三鉛;水酸化炭酸鉛(II)  | 1319-46-6  |                                    |
| 138 | Trilead dioxide phosphonate  | 二酸化ホスホリン酸三鉛;二塩基性リン酸鉛   | 12141-20-7 |                                    |
| 139 | 4-Nonylphenol, branched and linear, ethoxylated  | 分岐および直鎖エトキシ化 4-ニルフェノール   | -          | Jun. 20 <sup>th</sup> ,<br>2013    |
| 140 | Ammonium pentadecafluorooctanoate (APFO)   | ヘールフルオロオクタン酸アンモニウム   | 3825-26-1  |                                    |
| 141 | Cadmium  | カドミウム  | 7440-43-9  |                                    |
| 142 | Cadmium oxide  | 酸化カドミウム(II)  | 1306-19-0  |                                    |
| 143 | Dipentyl phthalate (DPP)   | フタル酸ジペンチル  | 131-18-0   |                                    |
| 144 | Pentadecafluorooctanoic acid (PFOA)  | ヘールフルオロオクタン酸   | 335-67-1   |                                    |
| 145 | Cadmium sulphide   | 硫化カドミウム  | 1306-23-6  | Dec.<br>16 <sup>th</sup> ,<br>2013 |
| 146 | Dihexyl phthalate  | ジヘキサン-1-イル=フタレート   | 84-75-3    |                                    |
| 147 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)] bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)  | 二ナトリウム=3,3'-(ビフェニル-4,4'-ジイルジジアゼン-2,1-ジイル)ビス(4-アミノナフタレン-1-スルホナート)<br>;コンコレット (別名:C.I.ダイレクトレッド 28)                 | 573-58-0   |                                    |
| 148 | Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38) | ジナトリウム=4-アミノ-3-({4'-[(2,4-ジアミノフェニル)アゾ]ビフェニル-4-イル}アゾ)-5-ヒドロキシ-6-(フェニルアゾ)ナフタレン-2,7-ジスルホナート<br>(別名 CI ダイレクトブラック 38) | 1937-37-7  |                                    |
| 149 | Imidazolidine-2-thione (2-imidazoline-2-thiol)   | 2-イミダゾリンチオン  | 96-45-7    |                                    |
| 150 | Lead di(acetate)   | 酢酸鉛(II)  | 301-04-2   |                                    |
| 151 | Trixylyl phosphate   | リン酸トリス(ジメチルフェニル)   | 25155-23-1 | Jun. 16 <sup>th</sup> ,<br>2014    |
| 152 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear   | フタル酸ジヘキシル(直鎖及び分枝)  | 68515-50-4 |                                    |
| 153 | Cadmium chloride   | 塩化カドミウム(II)  | 10108-64-2 |                                    |
| 154 | Sodium perborate, perboric acid, sodium salt   | 過ホウ酸ナトリウム及びその塩   | -          |                                    |
|     | Perboric acid, sodium salt   | 過ホウ酸ナトリウム  | 11138-47-9 |                                    |
|     | Sodium perborate   | 過ホウ酸ナトリウム;過ホウ酸のナトリウム塩(1:1)   | 15120-21-5 |                                    |
| 155 | Sodium peroxometaborate  | ヘールオキソホウ酸ナトリウム ; ヘールオキソメタホウ酸ナトリウム  | 7632-04-4  |                                    |

| No  | Substance Name   | Substance Name (Japanese)  | CAS No                 | ECHA Release Date            |
|-----|--|--|------------------------|------------------------------|
| 156 | 2-(2H-benzotriazol-2-yl)-4,6-ditertbutylphenol (UV-328)  | 2-(2H-ベンゾトリアゾール-2-イル)-4,6-ジ-tert-ブチルフェノール  | 25973-55-1             | Dec. 17 <sup>th</sup> , 2014 |
| 157 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)   | 2-(2H-1,2,3-ベンゾトリアゾール-2-イル)-4,6-ジ-tert-ブチルフェノール  | 3846-71-7              |                              |
| 158 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)   | ビス(2-エチルヘキサン-1-イル)=4,4-ジオクタン-1-イル-3,5-ジチア-4-スタンナヘブタンジオアト   | 15571-58-1             |                              |
| 159 | Cadmium fluoride   | フッ化カドミウム(II)   | 7790-79-6              |                              |
| 160 | Cadmium sulphate   | 硫酸カドミウム  | 10124-36-4, 31119-53-6 |                              |
| 161 | Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) | 10-エチル-4,4-ジオクチル-7-オキソ-8-オキサ-3,5-ジチア-4-スタンナテトラテカン酸 2-エチルヘキシルと 10-エチル-4-[[2-[(2-エチルヘキシル)オキシ]-2-オキソエチルチオ]-4-オクチル-7-オキソ-8-オキサ-3,5-ジチア-4-スタンナテトラテカン酸 2-エチルヘキシルの反応生成物(DOTE と MOTE の反応生成物) | -                      |                              |
| 162 | 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters  |  | -                      | Jun. 15 <sup>th</sup> , 2015 |
|     | 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters   | フタル酸のデシル=ヘキシル=オクチル混合ジエステル  | 68648-93-1             |                              |
|     | 1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters  | ジアルキル(C=6~10)=フタラート  | 68515-51-5             |                              |
| 163 | 4-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1],5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2]  |  | -                      |                              |
|     | 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane  |  | -                      |                              |
|     | 6-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane  |  | -                      |                              |
| 164 | 1,3-propanesultone   | 1,3-プロパンスルトン   | 1120-71-4              |                              |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327)  | 2-(2-ヒドロキシ-3,5-ジ-tert-ブチルフェニル)-5-クロロベンゾトリアゾール[別名:2-(3,5-ジ-tert-ブチル-2-ヒドロキシフェニル)-5-クロロベンゾトリアゾール]  | 3864-99-1              |                              |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)  | 2-(2H-1,2,3-ベンゾトリアゾール-2-イル)-6-sec-ブチル-4-tert-ブチルフェノール  | 36437-37-3             | Dec. 17 <sup>th</sup> , 2015 |
| 167 | Nitrobenzene   | ニトロベンゼン  | 98-95-3                |                              |
| 168 | Perfluorononan-1-oic-acid and its sodium and ammonium salts  |  | -                      |                              |
|     | Perfluorononan-1-oic-acid  | ペルフルオロナン酸  | 375-95-1               |                              |
|     | Sodium salts of perfluorononan-1-oic-acid  | ナトリウム=ペルフルオロナノアト   | 21049-39-8             |                              |
|     | Ammonium salts of perfluorononan-1-oic-acid  | アンモニウム=ペルフルオロナノアト  | 4149-60-4              |                              |

| No  | Substance Name   | Substance Name (Japanese)  | CAS No                    | ECHA Release Date               |
|-----|--|--|---------------------------|---------------------------------|
| 169 | Benzo[def]chrysene<br>(Benzo[a]pyrene)   | 3,4-ベンゾピレン   | 50-32-8                   | Jun. 20 <sup>th</sup> ,<br>2016 |
| 170 | 4,4'-isopropylidenediphenol  | 4,4'-イソプロピリデンジフェノール(別名<br>ビスフェノール A)   | 80-05-7                   | Jan. 12 <sup>th</sup> ,<br>2017 |
| 171 | 4-heptylphenol, branched and linear  |  | -                         |                                 |
| 172 | Nonadecafluorodecanoic acid (PFDA)<br>and its sodium and ammonium salts  | ナデカフルオロデカン酸(PFDA)及び<br>そのナトリウム塩及びアンモニウム塩   | -                         |                                 |
|     | Nonadecafluorodecanoic acid  | ナデカフルオロデカン酸  | 335-76-2                  |                                 |
|     | Decanoic acid, nonadecafluoro-,<br>sodium salt   | ナトリウム=ナデカフルオロデカノアト   | 3830-45-3                 |                                 |
|     | Ammonium<br>nonadecafluorodecanoate  | アンモニウム=ナデカフルオロデカノアト  | 3108-42-7                 |                                 |
| 173 | p-(1,1-dimethylpropyl) phenol  | p-(1,1-ジメチルプロピル)フェノール  | 80-46-6                   | Jul. 7 <sup>th</sup> ,<br>2017  |
| 174 | Perfluorohexane-1-sulphonic acid<br>and its salts  | ヘキサフルオロヘキサン-1-スルホン酸塩<br>(PFHxS)  | -                         |                                 |
| 175 | Benz[a]anthracene  | ベンゾ[a]アントラセン   | 56-55-3,<br>1718-53-2     |                                 |
| 176 | Cadmium carbonate  | 炭酸カドミウム  | 513-78-0                  |                                 |
| 177 | Cadmium hydroxide  | 水酸化カドミウム   | 21041-95-2                |                                 |
| 178 | Cadmium nitrate  | 硝酸カドミウム  | 10022-68-1,<br>10325-94-7 | Jan. 15 <sup>th</sup> ,<br>2018 |
| 179 | Chrysene   | クリセン   | 218-01-9,<br>1719-03-5    |                                 |
| 180 | Dodecachloropentacyclo<br>[12.2.1.16,9.02,13.05,10]<br>octadeca-7,15-diene ("Dechlorane<br>Plus"™)                             | ドデカクロペンタシクロ<br>[12.2.1.16,9.02.13.05,10]<br>オクタデカ-7,15-ジエンテトラシクロペンタ<br>(TM)                                      | -                         |                                 |
| 181 | Reaction products of<br>1,3,4-thiadiazolidine-2,5-dithione,<br>formaldehyde and 4-heptylphenol,<br>branched and linear (RP-HP) | 1,3,4-チアジゾリジン-2,5-ジチオン、ホル<br>ムアルデヒド、4-ヘptyルフェノール、分岐<br>および直鎖(RP-HP)[0.1wt%以上<br>の4-ヘptyルフェノール、分岐および<br>直鎖]の反応性生物 | -                         |                                 |
| 182 | Octamethylcyclotetrasiloxane (D4)  | オクタメチルシクロテトラシロキサン(D4)  | 556-67-2                  |                                 |
| 183 | Decamethylcyclopentasiloxane<br>(D5)   | デカメチルシクロペンタシロキサン(D5)   | 541-02-6                  | Jun. 27 <sup>th</sup> ,<br>2018 |
| 184 | Dodecamethylcyclohexasiloxane<br>(D6)  | ドデカメチルシクロヘキサシロキサン(D6)  | 540-97-6                  |                                 |
| 185 | Lead   | 鉛  | 7439-92-1                 |                                 |
| 186 | Disodium octaborate  | 八硼酸二ナトリウム  | 12008-41-2                |                                 |
| 187 | Benzo[ghi]perylene   | ベンゾ[ghi]ペリレン   | 191-24-2                  |                                 |
| 188 | Terphenyl hydrogenated   | 水素化トリフェニル  | 61788-32-7                |                                 |
| 189 | Ethylenediamine  | エチレンジアミン   | 107-15-3                  |                                 |
| 190 | Benzene-1,2,4-tricarboxylic acid<br>1,2 anhydride(trimellitic anhydride,<br>TMA)   | ベンゼン-1,2,4-トリカルボン酸-1,2-無<br>水物(無水トリメリット酸)  | 552-30-7                  |                                 |

| No  | Substance Name   | Substance Name (Japanese)   | CAS No      | ECHA Release Date            |
|-----|--|---|-------------|------------------------------|
| 191 | Dicyclohexyl phthalate (DCHP)  | フタル酸ジシクロヘキシル  | 84-61-7     |                              |
| 192 | 2,2-bis(4'-hydroxyphenyl)-4-methyl pentane   | 2,2-ビス(4'-ヒドロキシフェニル)-4-メチルペンタン  | 6807-17-6   | Jan. 15 <sup>th</sup> , 2019 |
| 193 | Benzo[k]fluoranthene<br>ベンゾ[k]フルオランテン  | 207-08-9  |             |                              |
| 194 | Fluoranthene   | フルオランテン   | 206-44-0    |                              |
| 195 | Phenanthrene   | フェナントレン   | 85-01-8     |                              |
| 196 | Pyrene   | ピレン   | 129-00-0    |                              |
| 197 | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo [2.2.1]heptan-2-one (3-benzylidene camphor)   | 1,7,7-トリメチル-3-(フェニルメチレン)ビスシクロ[2.2.1]ヘプタン-2-オン (3-ベンジルイデンカンファー)  | 15087-24-8  |                              |
| 198 | 2-methoxyethyl acetate   | 2-メトキシエチルアセテート、エチレングリコールモノメチルエーテルアセテート  | 110-49-6    |                              |
| 199 | Tris (4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq$ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)   | 亜リン酸トリス(直鎖、分岐鎖 4-ニルフェニル) (TNPP)(直鎖、分岐鎖 4-ニルフェニル(4-NP)を0.1w/w%以上含有するもの)                                    |             | Jul. 16 <sup>th</sup> , 2019 |
| 200 | 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)  | 2,3,3,3-テトラフルオロ-2-(ヘプタフルオロプロポキシ)プロピオン酸とその塩、その酸ハロゲン化合物(各異性体およびその混合物を含む)                                    |             |                              |
| 201 | 4-tert-butylphenol   | 4-tert-ブチルフェノール   | 98-54-4     |                              |
| 202 | Diisohexyl phthalate   | フタル酸ジイソヘキシル   | 71850-09-4  |                              |
| 203 | 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone  | 2-ベンジル-2-ジメチルアミノ-4'-モルホリンブチロフェノン  | 119313-12-1 | Jan. 16 <sup>th</sup> , 2020 |
| 204 | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one   | 2-メチル-1-(4-メチルチオフェニル)-2-モルホリンプロパン-1-オン  | 71868-10-5  |                              |
| 205 | Perfluorobutane sulfonic acid (PFBS) and its salts   | ヘキサフルオロブタン-1-スルホン酸(PFBS)及びその塩   |             |                              |
| 206 | 1-vinylimidazole   | 1-ビニルイミダゾール   | 1072-63-5   |                              |
| 207 | 2-methylimidazole  | 2-メチルイミダゾール   | 693-98-1    | Jun. 25 <sup>th</sup> , 2020 |
| 208 | Butyl 4-hydroxybenzoate  | 4-ヒドロキシ安息香酸ブチル  | 94-26-8     |                              |
| 209 | Dibutylbis(pentane-2,4-dionato-O, O')tin   | ジブチルビス(2,4-ペンタンジオナート)スズ(IV)   | 22673-19-4  |                              |
| 210 | Bis(2-(2-methoxyethoxy)ethyl)ether   | ビス(2-(2-メトキシエトキシ)エチル)エーテル   | 143-24-8    |                              |
| 211 | Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety | ジオクチルスズジラウレート、スタンナンのジオクチル誘導体、ビス(ココアシルオキシ)誘導体、他のスタンナンのジオクチル誘導体、ビス(脂肪酸アシルオキシ)誘導体(C12が脂肪酸アシルオキシ部位の主要な炭素数である) |             | Jan. 19 <sup>th</sup> , 2021 |



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|-----|--|---|-------------|---------------------------------|
| 212 | 1,4-dioxane  | 1, 4-ジオキサン  | 123-91-1    | Jul. 8 <sup>th</sup> ,<br>2021  |
| 213 | 2,2-bis(bromomethyl)propane 1,3-diol (BMP)<br>2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA),<br>2,3-dibromo-1-propanol (2,3-DBPA)             | 2,2-ビス(ブロモメチル)-1,3-プロパンジオール (BMP),<br>2,2-ジメチルプロパン-1-オール、トリブロモ誘導体/3-ブロモ-2,2-ビス(ブロモメチル)-1-プロパノール (TBNPA)<br>2,3-ジブロモ-1-プロパノール (2,3-DBPA) |             |                                 |
| 214 | 2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers   | 2-(4-tert-ブチルベンジル)プロピオンアルデヒドとその個別立体異性体  |             |                                 |
| 215 | 4,4'-(1-methylpropylidene)bisphenol; (bisphenol B)   | 4,4'-(1-メチルプロピリデン)ビスフェノール; (ビスフェノール B)  | 77-40-7     |                                 |
| 216 | Glutaral   | グルタルール  | 111-30-8    |                                 |
| 217 | Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]          | 中鎖塩素化パラフィン (MCCP) [炭素鎖長が C14 から C17 の範囲内の 80%以上の線状クロロアルカンからなる UVCB 物質]  |             |                                 |
| 218 | Orthoboric acid, sodium salt   | ホウ酸のナトリウム塩  |             |                                 |
| 219 | Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof(PDDP) | フェノール、オリゴマー化からの C12 に富む分岐または線状アルキル鎖を有するアルキル化生成物 (主にパラ位)、任意の個々の異性体および/またはそれらの組み合わせ   |             |                                 |
| 220 | (±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo [2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)                                      | 個々の異性体を及び/又はその組み合わせのすべてを包含する(±)-1,7,7-トリメチル-3-[(4-メチルフェニル)メチレン]ビスシクロ[2.2.1]ヘプタン-2-オン (4-MBC)  |             |                                 |
| 221 | 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)  | 2,2'-メチレンビス(4-メチル-6-tert-ブチルフェノール)  | 119-47-1    | Jan. 17 <sup>th</sup> ,<br>2022 |
| 222 | S-(tricyclo[5.2.1.0' <sup>2</sup> ,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate                            | ホスホロジチオ酸 O-(イソプロピル又はイソブチル又は2-エチルヘキシル) O-(イソプロピル又はイソブチル又は2-エチルヘキシル) S-(トリシクロ[5.2.1.0' <sup>2</sup> ,6]デカ-3-エン-8(or 9)-イル)                | 255881-94-8 |                                 |
| 223 | tris(2-methoxyethoxy)vinylsilane   | [トリス(2-メトキシエトキシ)](ビニル)シラン   | 1067-53-4   |                                 |

| No  | Substance Name  | Substance Name (Japanese)   | CAS No     | ECHA Release Date |
|-----|---|---|------------|-------------------|
| 224 | N-(hydroxymethyl)acrylamide   | N-(ヒドロキシメチル) アクリルアミド  | 924-42-5   | Jun. 10th, 2022   |
| 225 | 1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]  | 1,1'-[エタン-1,2-ジイルビスイソキシ]ビス[2,4,6-トリプロモベンゼン]   | 37853-59-1 | Jan. 17th, 2023   |
| 226 | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol  | 2,2',6,6'-テトラプロモ-4,4'-イソプロピリデンジフェノール  | 79-94-7    |                   |
| 227 | 4,4'-sulphonyldiphenol  | 4,4'-スルホニルジフェノール  | 80-09-1    |                   |
| 228 | Barium diboron tetraoxide   | メタホウ酸バリウム   | 13701-59-2 |                   |
| 229 | Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof  | テトラプロモフタル酸ビス(2-エチルヘキシル) (個々の異性体および/またはその組み合わせのいずれかをカバーしたもの)   | —          |                   |
| 230 | Isobutyl 4-hydroxybenzoate  | 4-ヒドロキシ安息香酸イソブチル  | 4247-02-3  |                   |
| 231 | Melamine  | メラミン (モノマー)   | 108-78-1   |                   |
| 232 | Perfluoroheptanoic acid and its salts   | パーフルオロヘプタン酸およびその塩   | —          |                   |
| 233 | reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine | 2,2,3,3,5,5,6,6-オクタフルオロ-4-(1,1,1,2,3,3,3-ヘプタフルオロプロパン-2-イル)モルホリンと 2,2,3,3,5,5,6,6-オクタフルオロ-4-(ヘプタフルオロプロピル)モルホリンの反応生成物 | —          |                   |

