

Nihon Parkerizing Co., Ltd.

Standards on the Management of
Chemicals Substances Contained
in Products

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Overview of the standards for management of chemical substances contained in products at Nihon Parkerizing Co., Ltd.

In the face of ever-increasing concerns about the impact of chemicals on humans and the environment, Nihon Parkerizing Co., Ltd. (hereafter referred to as 'Nihon Parkerizing') recognizes its social responsibility as a company involved in the manufacture and sale of chemicals and has been working on initiatives related to chemical substance management.

Nihon Parkerizing has established its basic management policy and, at the same time, a management standard for chemical substances in products.

The management standards set forth the prohibited chemical substances and chemical substances to be reduced and controlled as selected by Nihon Parkerizing in accordance with the chemical substance management regulations in Japan and overseas and scientific knowledge on the hazards of chemical substances and social responsibility.

Nihon Parkerizing herein sets forth its policy on the management of chemical substances and a list of chemical substances that are prohibited and chemical substances that are to be reduced and controlled.

1. Prohibited Chemical Substances

Nihon Parkerizing considers the following substances, the distribution of which is in principle prohibited in Japan by law, to be prohibited chemical substances.

None of the products of Nihon Parkerizing illegally contain any of these prohibited chemical substances.

In addition, Nihon Parkerizing prohibits the supply to Nihon Parkerizing of any raw materials or secondary materials that illegally contain prohibited chemical substances.

1.1 Class 1 Specified Chemicals under the Act on the Evaluation of Chemical Substances and Regulation of their Manufacture (hereinafter referred to as the Chemical Substances Control Law)

1.2 Harmful substances for which manufacture is prohibited under the Industrial Health and Safety Act

1.3 Specified poisonous substances under the Poisonous and Deleterious Substances Control Act

2. Chemical substances to be reduced

Nihon Parkerizing will select target chemical substances to be reduced from among chemical substances that the company consumes a significant volume of and that may pose a risk to people and the environment.

Nihon Parkerizing will develop substitutes for products that contain chemical substances to be reduced.

Please inform us if your company supplies raw materials or secondary materials to Nihon Parkerizing that contain any of the chemical substances to be reduced.

2.1 Chemical substances to be reduced

3. Chemical substances to be controlled

Nihon Parkerizing will select substances that we determine should be controlled in accordance with chemical management regulations in Japan and overseas and from the perspective of social responsibility.

Please inform us if your company supplies raw materials or secondary materials to Nihon Parkerizing that contain any of the chemical substances to be controlled.

Regarding information on key foreign laws and regulations and the regulations of key industrial organizations, information will be managed in accordance with the latest version of chemSHERPA operated by the Joint Article Management Promotion-consortium (JAMP).

In addition, Nihon Parkerizing will select substances as Controlled Substances Designated by Nihon Parkerizing in cases where sufficient information on the target substance is not provided under chemSHERPA.

(Substances for which information is required to be communicated by law in Japan are excluded, as information on their content is communicated by means of safety data sheets (SDS).)

3.1 chemSHERPA

3.2 Controlled Substances Designated by Nihon Parkerizing

Definition of terms

1) Environmentally hazardous substance

Substances that are or may be hazardous to humans or the environment.

Substances that pose risks to the environment, human rights, or other matters in the process of obtaining them, regardless of their hazardousness as substances.

(While all substances have some substance-specific hazards, Nihon Parkerizing selects substances that are deemed to be highly hazardous and require management for inclusion in this management standard.)

2) Intentionally contained

Intentionally contained refers to when a substance is intentionally used or contained in a product to maintain the physical properties, function, quality or appearance of a material or product.

Nihon Parkerizing controls as 'Intentionally contained' any material that is used as a raw material, catalyst, solvent or other secondary material and cannot be removed in the end, or remains without being removed.

We also consider as intentionally contained any substances in raw materials which fall under this definition of "intentionally contained".

3) Unintentionally contained

A substance is unintentionally contained if it is contained without being intentionally used.

This includes the following:

* Substances that are contained as impurities in materials and raw materials and remain in industrial materials even after technically sufficient removal in the refining process. Substances falling under the aforementioned definition of intentionally contained substances that are in raw materials will not be deemed unintentionally contained.

* By-products of the manufacturing process that cannot be removed even with technically sufficient removal. Substances that are intentionally contained due to the use of low-purity raw materials or a lower degree of purification than usual are not considered to be unintentional.

4) Permissible concentration (threshold)

If a substance is unintentionally contained, the permissible concentration is one which is below the specified permissible value, below which the substance is not deemed prohibited or subject to control.

* Concentration is calculated using the 'weight of material considered homogeneous' as the population number.

* Nihon Parkerizing requires information on intentionally contained substances regardless of the concentration.

* Please also inform us if you have information on unintentionally contained substances.

5) CAS Registry Number (CAS RN®)

The CAS Registry Number is a unique numerical identifier assigned to each chemical substance by the American Chemical Society (ACS). It can be searched as a substance-specific identification number. However, there are CAS RN® including isomers and CAS RN® with inclusive names, so CAS RN® collation alone cannot be used to determine whether or not a substance is contained.

6) Contained in product

“Contained in product” means all parts and materials contained in products and packaging materials.

For example, it also includes the following states.

* When the target substance is intentionally used.

* When the target substance is contained as impurity.

* (For example, if there is a possibility of contamination of products from molds, jigs, tools, machinery and equipment that come into direct contact with the product in the manufacturing process, the parts that come into contact with the product must be considered to be targets of the prohibition of the inclusion of prohibited chemical substances.)

7) Impurities

Impurities are substances contained in natural materials that cannot be removed in the refining process or substances generated in the reaction process that are technically not removable.

8) chemSHERPA

chemSHERPA refers to chemSHERPA published by the Joint Article Management Promotion-consortium (JAMP) which is widely used as a standard tool for communicating information on chemical substances contained in (chemicals) products.

[Prohibited chemicals] 1.1 Chemical Substances Control Law ; CSCL,
Japan

(YYYY/MM/DD: 2021/10/22)

Japan CSCL: Class I Specified Chemical Substances

1	Polychlorinated biphenyls
2	Polychlorinated naphthalenes (only those containing 2 or more chlorine atoms in the molecule)
3	Hexachlorobenzene
4	1, 2, 3, 4, 10, 10-Hexachloro-1, 4, 4a, 5, 8, 8a-hexahydro-exo-1, 4-endo-5, 8-dimethanonaphthalene (Synonym: Aldrin)
5	1, 2, 3, 4, 10, 10-Hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-exo-1, 4-endo-5, 8-dimethanonaphthalene (Synonym: Dieldrin)
6	1, 2, 3, 4, 10, 10-Hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-endo-1, 4-endo-5, 8-dimethanonaphthalene (Synonym: Endrin)
7	1, 1, 1-Trichloro-2, 2-bis(4-chlorophenyl)ethane (Synonym: DDT)
8	1, 2, 4, 5, 6, 7, 8, 8-Octachloro-2, 3, 3a, 4, 7, 7a-hexahydro-4, 7-methano-1H-indene, 1, 4, 5, 6, 7, 8, 8-heptachloro-3a, 4, 7, 7a-tetrahydro-4, 7-methano-1H-indene and their analogous compounds (Synonym: Chlordane or Heptachlor)
9	Bis(tributyltin) oxide
10	N, N'-Ditolyl-p-phenylenediamine, N-Tolyl-N'-xylyl-p-phenylenediamine, or N, N'-Dixylyl-p-phenylenediamine
11	2, 4, 6-Tri-tert-butylphenol
12	Polychloro-2, 2-dimethyl-3-methylidenebicyclo[2. 2. 1]heptane (Synonym: Toxaphene)
13	Dodecachloropentacyclo[5. 3. 0. 0(2, 6). 0(3, 9). 0(4, 8)]decane (Synonym: Mirex)
14	2, 2, 2-Trichloro-1-(2-chlorophenyl)-1-(4-chlorophenyl)ethanol or 2, 2, 2-Trichloro-1, 1-bis(4-chlorophenyl)ethanol (Synonym: Kelthane or Dicofol)
15	Hexachlorobuta-1, 3-diene
16	2-(2H-1, 2, 3-Benzotriazol-2-yl)-4, 6-di-tert-butylphenol
17	Perfluoro(octane-1-sulfonic acid) (Synonym: PFOS) or its salts
18	Perfluoro(octane-1-sulfonyl) fluoride (Synonym: PFOSF)
19	Pentachlorobenzene
20	r-1, c-2, t-3, c-4, t-5, t-6-Hexachlorocyclohexane (Synonym: alpha-Hexachlorocyclohexane)
21	r-1, t-2, c-3, t-4, c-5, t-6-Hexachlorocyclohexane (Synonym: beta-Hexachlorocyclohexane)
22	r-1, c-2, t-3, c-4, c-5, t-6-Hexachlorocyclohexane (Synonym: gamma-Hexachlorocyclohexane or Lindane)
23	Decachloropentacyclo[5. 3. 0. 0(2, 6). 0(3, 9). 0(4, 8)]decan-5-one (Synonym: Chlordecone)
24	Hexabromobiphenyl
25	Tetrabromo(phenoxybenzene) (Synonym: Tetrabromodiphenyl ether)
26	Pentabromo(phenoxybenzene) (Synonym: Pentabromodiphenyl ether)

27	Hexabromo(phenoxybenzene) (Synonym: Hexabromodiphenyl ether)
28	Heptabromo(phenoxybenzene) (Synonym: Heptabromodiphenyl ether)
29	6, 7, 8, 9, 10, 10-Hexachloro-1, 5, 5a, 6, 9, 9a-hexahydro-6, 9-methano-2, 4, 3-benzodioxathiepin-3-oxide (synonym: Endosulfan or Benzoepin)
30	Hexabromocyclododecane
31	Pentachlorophenol, its salts or esters
32	Polychlorinated normal paraffin (It is limited that the number of carbon is 10 to 13 and the content of chlorine is more than 48% of the total weight.)
33	1, 1'-Oxybis(2, 3, 4, 5, 6-pentabromobenzene) (synonym: Decabromodiphenyl ether)
34	Perfluorooctanoic acid (Synonym: PFOA) or its salt

[Prohibited chemicals] 1.2 Industrial Safety and Health Act (ISHA),
Japan

(YYYY/MM/DD: 2023/04/01)

Japan ISHA: Chemical Substances Prohibited to Manufacturing, etc.

1	Yellow phosphorus matches
2	Benzidine and its salts
3	4-aminodiphenyl and its salts
4	Asbestos (excluding the substances listed below, as prescribed by the Ordinance of the Ministry of Health, Labour and Welfare.) (a) Asbestos used as a sample for asbestos analysis, (b) Asbestos used for education to acquire knowledge or skills related to the investigation of the use situation of asbestos, (c) Asbestos used as a material or ingredient in the substance listed in (a) or (b)
5	4-nitrodiphenyl and its salts
6	Bis (chloromethyl) ether
7	Beta-naphthylamine and its salts
8	Gum containing benzene in a quantitative amount of more than 5% by volume of the solvent (including dilutants) of the said gum
9	Substances including No. 2, No. 3, No.5, No. 6, or No.7 over 1 weight %, or substances including No. 4 over 0.1 weight %.

[Prohibited chemicals] 1.3 Poisonous and Deleterious Substances
Control Act, Japan

Japan: Specified Poisonous Substances (by Law)
(YYYY/MM/DD: 2022/06/17)

1	Octamethyl-pyrophosphoramide
2	Tetraalkyl lead
3	Diethyl-paranitrophenyl-thiophosphate
4	Dimethylethylmercapto ethylthiophosphate
5	Dimethyl-(diethylamido-1-chlorocrotonyl)-phosphate
6	Dimethylparanitrophenyl thiophosphate
7	Tetraethylpyrophosphate
8	Monofluoroacetate
9	Fluoroacetamide
10	In addition to the poisonous substances in the previous items, preparations containing those in the previous items, and other substances with significant toxicity which are designated by Cabinet Order.

Japan: Specified Poisonous Substances (by Cabinet order)
(YYYY/MM/DD: 2023/06/01)

1	Preparations containing octamethylpyrophosphoramide
2	Preparations containing tetraalkyl lead
3	Preparations containing diethylparanitrophenylthiophosphate
4	Preparations containing dimethylethylmercapto ethylthiophosphate
5	Preparations containing dimethyl-(diethylamido-1-chlorocrotonyl)-phosphate
6	Preparations containing dimethylparanitrophenyl thiophosphate
7	Preparations containing tetraethylpyrophosphate
8	Salts of monofluoroacetic acid and preparations containing it
9	Preparations containing monofluoroacetamide
10	Preparations containing aluminum phosphide and its decomposition promoter

[Chemical Substances to be Reduced] 2.1 Chemical Substances to be Reduced

1	Nonylphenol and its derivatives
2	PFASs (Per- and polyfluoroalkyl substances) *

*Per- and polyfluoroalkyl substances (PFASs) defined as:
Any substance that contains at least one fully fluorinated methyl (CF₃-)
or
methylene (-CF₂-) carbon atom (without any H/Cl/Br/I attached to it).

[Managed chemicals] 3.1 chemSHERPA

In principle, we use chemSHERPA as the standard tool for communicating information on the management of chemical substances in products in Japan.

Please download the latest version of each tool from the website of the Joint Article Management Promotion-consortium (JAMP).

chemSHERPA

<https://chemsherpa.net/tool>

[Managed chemicals] 3.2 Original managed chemicals

Based Lows, etc		
Chemical Substances Control Law ; CSCL, Japan	Monitoring Chemical Substances	Annex 3.2.1.1
	Priority Assessment Chemical Substances	Annex 3.2.1.2
	Specified Existing Chemical Substances Specified Newly Announced Chemical Substances	*
Water Pollution Control Law, Japan	Harmful Substances	Annex 3.2.2
	Designated Substances	
	Oil	
Air Pollution Control Law, Japan	Volatile Organic Substances	Annex 3.2.3
Soil Contamination Countermeasures Act, Japan	Specified Harmful Substances	Annex 3.2.4
Dodd-Frank Wall Street Reform and Consumer Protection Act (USA)	Conflict Minerals	Annex 3.2.5
Biocidal Products Regulation (EU)	Biocide Substances	Annex 3.2.6
EU REACH SVHC	Candidates of SVHC Newly SVHC (not yet in chemSHERP)	Annex 3.2.7
Many countries	Nonylphenol, Octylphenol, other alkylphenols, and their derivatives	Annex 3.2.8
Many countries	Azo Colorants	
Many countries	Polyaromatic Hydrocarbons	
Many countries	Organic Halogenated Substances	
NPO etc.	Palm Oil	
Many countries, NPO etc.	Wood and its Related Substances	
NPO etc.	Natural rubber and its Related Substances	
Many countries	Nanomaterials	
Many countries, NPO etc.	Microplastics	

* After the announcement of such substances, we will add as a new annex.

[Managed chemicals] 3.2.1.1 Monitoring Chemical Substances

	MITI Number	Chemical Substance Name
1	1-436	Mercury(II) oxide
2	3-430	1-tert-butyl-3,5-dimethyl-2,4,6-trinitrobenzene
3	3-2239	Cyclododeca-1,5,9-triene
4	3-2240	Cyclododecane
6	3-2341	1,1-Bis(tert-butyldioxy)-3,3,5-trimethylcyclohexane
7	3-2572	Tetraphenyltin
8	3-2855	1,3,5-Tribromo-2-(2,3-dibromo-2-methylpropoxy)benzene
9	3-3371	O-(2,4-Dichlorophenyl) O-ethyl phenylphosphonothioate
10	3-3427	1,3,5-Tri-tert-butylbenzene
11	4-18	Polybromobiphenyl (Br:2-5)
12	4-67	Dipentenedimer or its hydrogenated derivatives
13	4-577	2-isopropylbicyclo[4.4.0]decane or 3-isopropylbicyclo[4.4.0]decane
14	4-821	2,6-Di-tert-butyl-4-phenylphenol
15	4-961	Diisopropylnaphthalene
16	4-961	Triisopropylnaphthalene
18	5-3581, 5-3605	2,4-Di-tert-butyl-6-(5-chloro-2H-1,2,3-benzotriazol-2-yl)phenol
20	4-16	Diethylbiphenyl
21	4-41	Hydrogenated terphenyl
22	4-638	Dibenzyltoluene
23	4-16	Triethylbiphenyl
24	5-256	N,N-Dicyclohexyl-1,3-benzothiazole-2-sulfenamide
25	5-3604	2-(2H-1,2,3-Benzotriazol-2-yl)-6-sec-butyl-4-tert-butylphenol
26	3-2835	2,4-Di-tert-butyl-6-[(2-nitrophenyl) diazenyl]phenol
27	3-3247	Perfluoro(1,2-dimethylcyclohexane)
28	4-39	2,2',6,6'-Tetra-tert-butyl-4,4'-methylenediphenol
29	2-2658, 2-2659	Perfluorododecanoic acid
30	2-2658, 2-2659	Perfluorotridecanoic acid
31	2-2658	Perfluorotetradecanoic acid
32	2-2658	Perfluoropentadecanoic acid
33	2-2658	Perfluorohexadecanoic acid
34	2-2366	Perfluoroheptane
35	2-2366	Perfluorooctane
36	5-71	2,2,3,3,4,4,5-Heptafluoro-5-(perfluorobutyl)oxolane and/or 2,2,3,3,4,5,5-heptafluoro-4-(perfluorobutyl)oxolane
37	3-540	4-sec-Butyl-2,6-di-tert-butylphenol
38	4-1263, 5-5112	1,4-Bis(isopropylamino)-9,10-anthraquinone

39	6-1849	alpha-(Difluoromethyl)-omega-(difluoromethoxy)poly[oxy(difluoromethylene)/oxy(tetrafluoroethylene)] (It is limited that a molecular weight of the polymer is 500 or more and 700 or less.)
40	7-475	2, 2, 4, 4, 6, 6, 8, 8-Octamethyl-1, 3, 5, 7, 2, 4, 6, 8-tetraoxatetrasiloxane (synonym: Octamethylcyclotetrasiloxane)
41	7-475	2, 2, 4, 4, 6, 6, 8, 8, 10, 10, 12, 12-Dodecamethyl-1, 3, 5, 7, 9, 11-hexaoxa-2, 4, 6, 8, 10, 12-hexasilacyclododecane (synonym: Dodecamethylcyclohexasiloxane)

[Managed chemicals] 3.2.1.2 Priority Assessment Chemical Substances

	MITI Number	Chemical Substance Name
1	1-172	Carbon disulfide
2	1-374	Hydrazine
3	2-6	n-Hexane
4	2-17	1,3-Butadiene
5	2-20	Isoprene
6	2-35	Chloromethane (synonym: Methyl chloride)
8	2-37	Chloroform
9	2-39	Bromomethane (synonym: Methyl bromide)
10	2-53	Chloroethane
11	2-54	1,2-Dichloroethane
15	2-129	Methylamine
16	2-134	Dimethylamine
17	2-186	Tetramethylammonium hydroxide
18	2-191	Nitromethane
19	2-218	Ethylene oxide
22	2-275	Epichlorohydrin
23	2-405	Ethylene glycol monomethyl ether
24	2-410	2-(1-Methylethoxy)ethanol
25	2-482	Formaldehyde
26	2-485	Acetaldehyde
27	2-680	N,N-Dimethylformamide
28	2-728	Vinyl acetate
31	2-987	Methyl acrylate
32	2-988	Ethyl acrylate
34	2-1014	Acrylamide
35	2-1025	Methacrylic acid
36	2-1263	Ethylenediaminetetraacetic acid
37	2-1276	nitrilotriacetate
38	2-1508	Acetonitrile
39	2-1513	Acrylonitrile
40	2-1733	Thiourea
41	2-1820	Tetraethylthiuram disulfide (synonym: Disulfiram)
42	2-1848	N,N'-Ethylenebis(thiocarbamoylthiozinc) bis(N,N-dimethyldithiocarbamate) (synonym: Polycarbamate)
43	2-2863	Hexamethylene diisocyanate
45	3-1	Benzene
46	3-2, 3-60	Toluene
47	3-4	Styrene
48	3-5, 3-8	Isopropenylbenzene (synonym: alpha-Methylstyrene)

49	3-7, 3-3427	1, 2, 4-Trimethylbenzene
50	3-28, 3-60	Ethylbenzene
51	3-39, 3-102	Benzyl chloride
53	3-41	p-Dichlorobenzene
54	3-105	Aniline
55	3-185	m-Phenylenediamine
56	3-185	o-phenylenediamine
59	3-436	Nitrobenzene
60	3-442	p-Chloronitrobenzene
62	3-481	Phenol
64	3-540, 9-1805	2, 6-Di-tert-butyl-4-methylphenol
65	3-543	Pyrocatechol (synonym: Catechol)
66	3-1307	Bis(2-ethylhexyl) phthalate
67	3-1328	Dimethyl terephthalate
68	3-1334	Terephthalic acid
69	3-1362	1, 2, 4-Benzenetricarboxylic acid 1, 2-anhydride
70	3-4280	Octadecylamine (N-B) triphenylborane
71	3-4392	[3-(2-Ethylhexyloxy)propylamine]triphenylboron
74	4-118	Methylenebis(4, 1-phenylene) diisocyanate
75	4-123	4, 4'-(Propane-2, 2-diyl)diphenol (synonym: 4, 4'-Isopropylidenediphenol or Bisphenol A)
76	4-311	Naphthalene
77	4-634	Dicyclopentadiene
80	5-839	1, 4-Dioxane
81	5-859	Morpholine
82	5-1097	epsilon-Caprolactam
84	5-6271	Bis(2-sulfidopyridin-1-olato)copper
85	5-6783	Dipotassium piperazine-1, 4-bis(carbodithioate)
86	3-589, 7-172	alpha-(Nonylphenyl)-omega-hydroxypoly(oxyethylene) (synonym: Poly(oxyethylene) nonylphenyl ether)
87	7-1279, 7-1283	Polycondensate of 4, 4'-isopropylidenediphenol and 1-chloro-2, 3-epoxypropane (synonym: Bisphenol A type epoxy resin) (liquid only)
91	2-302, 2-354	Diethanolamine
92	2-689	Peracetic acid
93	2-690	Acetic anhydride
94	2-984	Acrylic acid
95	2-1146	Sodium chloroacetate
96	3-2233	Cyclohexane
97	1-375	Hydroxylamine
102	2-207	Isopropyl alcohol
105	2-230	Ethylene glycol

106	2-234	Propane-1,2-diol
107	2-301	2-Aminoethanol
108	2-308, 2-353	Triethanolamine
109	2-407, 2-2424, 7-97	2-Butoxyethanol
110	2-422	2-(2-Ethoxyethoxy) ethanol
112	2-510	Glyoxal
116	2-542	Methyl isobutyl ketone
117	2-670	Formic acid
118	2-740	2-Butoxyethyl acetate
119	2-1145	Chloroacetic acid
122	2-1673	Dimethyl sulfate
124	2-3049	1-Butanol
125	3-3, 3-60	Xylene
126	3-22	Cumene
129	3-2214	1,3-Diisocyanato(methyl)benzene
131	3-2376	Cyclohexanone
132	3-2381, 3-2389	3,5,5-Trimethylcyclohex-2-en-1-one
133	3-2387	(E)-4-(2,6,6-Trimethylcyclohex-1-en-1-yl)but-3-en-2-one
134	3-2667	3-(4-tert-Butylphenyl)-2-methylpropanal
135	5-53	Tetrahydrofuran
136	5-113	N-Methyl-2-pyrrolidone
137	5-1044	1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione
138	5-2742	Disodium 2,2'-vinylenebis[5-(4-morpholino-6-anilino-1,3,5-triazin-2-ylamino)benzenesulfonate] (synonym: Fluorescent-260)
139	5-3725, 9-1110	(T-4)-Bis[2-(thioxo-kappaS)-pyridin-1(2H)-olato-kappaO]zinc(II)
140	3-1884, 3-1906, 3-1949	Sodium alkylbenzenesulfonate(The alkyl is limited to the substituent groups derived from linear alkane of C=10-14.)
143	1-174	Silicon carbide
144	1-242	Nickel(II) dichloride
145	1-284	Chromium(VI) trioxide
146	1-393	Nickel(II) bis(sulfamate)
147	1-639, 1-648	Zirconium dichloride oxide
148	1-813	Nickel(II) sulfate
149	2-123	3-Chloropropene (synonym: Allyl chloride)
150	2-407, 2-2424, 7-97	2-Isobutoxyethanol
151	2-759	Allyl heptanoate
152	2-1277	Sodium salts of 2,2',2''-nitrilotriacetic acid

153	2-2509, 2-2521	N-[3-(Dimethylamino)propyl]stearamide
156	3-499, 4- 57	Cresol
157	3-503	4-(1, 1, 3, 3-Tetramethylbutyl)phenol
159	5-1043	Sodium 3,5-dichloro-2,4,6-trioxo-1,3,5-triazinan-1-ide (synonym: Sodium dichloroisocyanurate)
160	5-6110	2-tert-Butylamino-4-cyclopropylamino-6-methylthio-1,3,5-triazine
161	6-901	Sodium salts of polymer of acrylic acid
162	9-1741	Coal tar
163	9-1744	Coal tar pitch
164	2-133, 2- 176, 2- 185, 8- 310, 8- 342	Alkan-1-amine (C=8, 10, 12, 14, 16, 18, normal chain), (Z)-Octadec-9-en-1-amine or (9Z, 12Z)-Octadeca-9, 12-dien-1-amine
165	2-176	N,N-Dimethyldodecylamine
166	2-184, 9- 795, 9- 1971	Salt of hexadecyl(trimethyl)ammonium
167	2-184, 9- 1971	Salt of didecyl(dimethyl)ammonium
168	2-184, 9- 1971	Salt of bis(alkyl (C=12, 14, 16, 18, 20, normal chain)) (dimethyl)ammonium
169	2-198	N,N-Dimethylalkan-1-amine oxide (C=10, 12, 14, 16, 18, normal chain), (Z)-N,N-dimethyloctadec-9-en-1-amine oxide or (9Z, 12Z)-N,N-dimethyloctadeca-9, 12-dien-1-amine oxide
170	2-217	Decan-1-ol
171	2-217, 2- 3704	Alkanol (C=10-16) (only the substances that contain any of C=11-14 components)
172	2-611, 7- 973	Sodium salt of saturated fatty acid (C=8-18, normal chain) or unsaturated fatty acid (C=16-18, normal chain)
173	2-814, 2- 827, 2- 2503, 7- 87, 8-311	N,N-Bis(2-hydroxyethyl)alkanamide (C=8, 10, 12, 14, 16, 18, normal chain), (Z)-N,N-bis(2-hydroxyethyl)octadec-9-enamide or (9Z, 12Z)-N,N-bis(2-hydroxyethyl)octadeca-9, 12-dienamide
174	2-1290, 2-2707, 9-2027	[(3-Alkanamido (C=8, 10, 12, 14, 16, 18, normal chain)propyl) (dimethyl)ammonio]acetate or (Z)-{[3-(octadec-9-enamido)propyl] (dimethyl)ammonio}acetate
175	2-1639, 2-2807, 9-2038	Sodium alkenesulfonate (C=14-16) or sodium hydroxyalkanesulfonate (C=14-16)

176	6-3223	Copolymer of acrylamide / 2-acrylamido-2-hydroxyacetic acid / [2-(acryloyloxy)ethyl](benzyl)(dimethyl)ammonium chloride / 2-(dimethylamino)ethyl methacrylate / benzyl[2-(methacryloyloxy)ethyl](dimethyl)ammonium chloride / 2-methylidenesuccinic acid (It is limited that the polymer is insoluble in fat-soluble solvent and usual solvent, and the content of the components having molecular weight less than 1,000 is 1% or less.)
177	1-417	Nickel(II) hydroxide
178	2-611, 9-1677	Potassium salt of saturated fatty acid(C=8-18, normal chain) or potassium salt of unsaturated fatty acid(C=18, normal chain)
179	2-1249	Potassium diethyldithiocarbamate
180	2-1291, 2-2709	2-(N-Dodecyl-N,N-dimethylammonio)acetate
182	2-2795	2,2-Dibromo-2-cyanoacetamide
184	3-326, 3-2694	Salt of alkyl(C=12-16)(benzyl)(dimethyl)ammonium
185	3-1585	Hexyl 2-hydroxybenzoate
187	5-683	4,6,6,7,8,8-Hexamethyl-1,3,4,6,7,8-hexahydrocyclopenta[g]isochromene
188	7-97	alpha-Alkyl(C=9-11)-omega-hydroxypoly(oxyethylene) (It is limited that a number-average molecular weight of the polymer is less than 1,000.)
189	7-97	alpha-Alkyl(C=12-15)-omega-hydroxypoly(oxyethylene) (It is limited that a number-average molecular weight of the polymer is less than 1,000.)
190	2-141	Triethylamine
191	1-124	Phosgene
192	1-158	Sodium cyanide
193	2-184, 9-1971	Salts of trimethyl(octadecyl)ammonium
196	2-759	Allyl hexanoate
199	3-2657	2-Benzylideneoctanal
200	3-2694	Salts of benzyl(dimethyl)(octyl)ammonium
201	3-7, 3-3427	1,3,5-Trimethylbenzene
203	3-543	Hydroquinone
204	4-1911	Reaction products of 3-methylpent-3-en-2-one and 3-methylidene-7-methylocta-1,6-diene, which consists of mixture of 1-(2,3,8,8-tetramethyl-1,2,3,4,5,6,7,8-octahydro-2-naphthyl)ethanone, 1-(2,3,8,8-tetramethyl-1,2,3,4,6,7,8,8a-octahydro-2-naphthyl)ethanone and 1-(2,3,8,8-tetramethyl-1,2,3,5,6,7,8,8a-octahydro-2-naphthyl)ethanone as a major component (80% or more)
205	5-1089	Oxacyclohexadecan-2-one
206	5-1104, 5-3880	1,4-Dioxacycloheptadecane-5,17-dione

207	5-3560	3-(1,3-Benzodioxol-5-yl)-2-methylpropanal
208	5-67, 9-137	5-Heptyloxolan-2-one
209	9-1735	Creosote oil
212	2-10	2,2,4,6,6-Pentamethylheptane
213	2-1620, 2-1623	Sodium 1,4-bis[(2-ethylhexyl)oxy]-1,4-dioxobutane-2-sulfonate
214	2-1679	Sodium alkyl(C=8-18) sulfate
216	2-184	Salts of dimethyl[bis(octadecen-1-yl)]ammonium
217	2-2936, 2-4162	(1-Hydroxyethane-1,1-diyl)diphosphonic acid or its potassium or sodium salt
218	2-68	Mono(or poly)chloroalkane(C=14-17, normal chain)
219	3-2522, 3-2613, 3-3363	Tritolyl phosphate
220	4-38, 4-244	Dimethyl(1-phenylethyl)benzene
221	5-6165	4,5-Dichloro-2-octylisothiazol-3(2H)-one
222	7-110, 8-55	Mono(or poly)ether of (mono ester of anhydro(or dianhydro)glucitol and dodecanoic acid) and alpha-hydro-omega-hydroxypoly(oxyethylene)
223	7-155	Onium salt or sodium salts of alpha-(alkyl(C=10-16))-omega-(sulfoxy)poly[(oxyethylene) (or oxyethylene/oxy(methylethylene))] (It is limited that the average of repeating number of the repeating unit is 1-4.)
224	7-1951, 7-1961	Polycondensation products of adipic acid / N-(2-aminoethyl) (or N,N'-bis(2-aminoethyl))ethane-1,2-diamine / 2-(chloromethyl)oxirane
225	7-872	alpha-(Isocyanatobenzyl)-omega-(isocyanatophenyl)poly[(isocyanatophenylene)methylene]
226	8-118	Salts of {poly[2-hydroxy-3-(trimethylammonio)propyl] ether of starch}
227	9-1958	Sodium (alkyl(C=12, branched chain))(alkyl(C=12, branched chain)phenoxy)benzenesulfonate (or sodium (alkyl(C=12, branched chain)phenoxy)benzenesulfonate or sodium (alkyl(C=12, branched chain))(phenoxy)benzenesulfonate or disodium (alkyl(C=12, branched chain))[(alkyl(C=12, branched chain))(sulfonato)phenoxy]benzenesulfonate or disodium (alkyl(C=12, branched chain))(sulfonatophenoxy)benzenesulfonate)
228	2-73	1-Bromopropane
229	2-184, 9-1971	Salt of N,N,N-trimethyldodecane-1-aminium
230	2-611	Potassium 2-ethylhexanoate
231	2-642, 2-766	3-Hydroxy-2,2-bis(hydroxymethyl)propyl octadecanoate
232	3-2311, 3-2345, 3-2356	2-tert-Butylcyclohexyl acetate

233	5-31	Furfuryl alcohol
234	6-898	Polymer of acrylic acid
235	7-114	Sodium alpha-(carboxylatomethyl)-omega-(dodecyloxy)poly(oxyethane-1,2-diyl) (The repeating number of repeating unit is an integer from 1 to 100.)
236	7-264	alpha-Hydro-omega-dodecanamidopoly(oxyethane-1,2-diyl) (The repeating number of repeating unit is an integer from 2 to 101.)
237	2-139, 2-143	Trioctylamine
238	2-176	N-Methyldidecan-1-ylamine
239	2-184, 9-1971	Salt of N-ethyl-N,N-dimethyltetradecan-1-aminium
240	2-413	1,1'-Oxydi(propan-2-ol)
241	2-769, 2-2491	2-[(Dodecanoyloxy)methyl]-2-ethylpropane-1,3-diyl di(dodecanoate)
242	2-1291, 2-2709	[Dimethyl(octadecyl)azaniumyl]acetate
243	2-2607	Salt of N,N-diethyl-N-methyl-2-[(2-methylprop-2-enoyl)oxy]ethan-1-aminium
244	2-3231	Ethyl hydrogen sulfate
245	3-1023	2,2,2-Trichloro-1-phenylethyl acetate
246	3-1730	Ethyl 2-phenylpropanoate
247	3-4307	Sodium dodecanoyloxybenzenesulfonate
248	4-658	3a,4,5,6,7,7a-Hexahydro-1H-4,7-methanoinden-5-yl acetate
249	4-1952	Cyclohexylidene(phenyl)acetonitrile
250	7-97	[alpha-(Alkyl(C=16-18))-omega-hydroxypoly(oxyethane-1,2-diyl) or alpha-(alkenyl(C=16-18))-omega-hydroxypoly(oxyethane-1,2-diyl)] (It is limited that the number-average molecular weight of the polymer is less than 1,000.)
251	9-1473	Sodium 1-oxo-1lambda(5)-pyridine-2-thiolate
252	1-138	Hydrogen cyanide
253	3-1301	Diethyl phthalate
254	3-4387	5-Chloro-2-(4-chlorophenoxy)phenol
255	4-95, 4-96, 4-275	4,4'-Diamino-3,3'-dichlorodiphenylmethane (synonym: 4,4'-Methylenebis(2-chloroaniline))
256	4-1715	Mixture of bicyclo[2.2.1]heptane-2,5(or 2,6)-diyl dicyanide
257	-	Salt of cation of poly(azanediylcarbonimidoylazanediylcarbonimidoylazanediylhexane-1,6-diyl) (It is limited that the cation is formed by proton addition to the nitrogen atoms.)* It stands for the salt of cation formed by proton addition to the nitrogen atoms of ''Polyhexamethylenebiguanidine'' (MITI_Number 7-1729)
258	2-1289, 2-1291, 2-2709	(N,N-Dimethyltetradecan-1-aminiumyl)acetate

259	2-1640	Sodium alkanesulfonate(C=10-18), sodium hydrogen alkanedisulfonate(C=10-18) or disodium alkanedisulfonate(C=10-18)
260	2-3065	Sodium 1-methoxy-1-oxooctadecane-2-sulfonate or sodium 1-methoxy-1-oxohexadecane-2-sulfonate
261	2-4053	Mixture of 2-{dimethyl[3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctane-1-sulfonamido)propyl]ammonio}acetate and N,N-dimethyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctane-1-sulfonamido)propylamine, which consists of 2-{dimethyl[3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctane-1-sulfonamido)propyl]ammonio}acetate as a major component (95% or more)
262	2-546	Butan-2-one oxime
263	4-1977	Reaction products of 2,2-dimethyl-3-methylidenebicyclo[2.2.1]heptane and phenol, which consists of 1:1 reaction products of 2,2-dimethyl-3-methylidenebicyclo[2.2.1]heptane and phenol as a major component (60% or more) (It is limited that the molecular weight is 460 or less.)
264	2-1241, 2-1747	Diazenedicarboxamide
265	5-465	Methyl (1H-1,3-benzimidazol-2-yl)carbamate(synonym: Carbendazim)
266	7-60	alpha, alpha'-[(Alkyl(C=8-18, normal chain)azanediyl)di(ethane-2,1-diyl)]bis[omega-hydroxypoly(oxyethane-1,2-diyl)](The repeating number of repeating unit is an integer 0 or more.) (It is limited that the number-average molecular weight of the polymer is less than 1,000.)
267	7-72	Salt of {ester of 2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methylethan-1-aminium and [saturated fatty acid(C=10-20, normal chain) (or unsaturated fatty acid(C=16-18, normal chain))]}
268	2-1265	Sodium salt of 2,2',2'',2'''-(ethane-1,2-diyl)dinitrilo)tetraacetic acid
269	7-60	alpha, alpha'-[(Alkyl(C=8-18, normal chain)azanediyl)bis(ethane-2,1-diyl(or methylethane-2,1-diyl))]bis{omega-hydroxypoly[oxyethane-1,2-diyl/oxy(methylethane-1,2-diyl)]}(The repeating number of repeating unit is an integer 1 or more.) (It is limited that the number-average molecular weight of the polymer is less than 1,000.)
270	7-66	Salt of {ester of 2-hydroxy-N-(2-hydroxyethyl)-N,N-dimethylethan-1-aminium and [saturated fatty acid(C=10-18, normal chain) (or unsaturated fatty acid(C=18, normal chain))]} or salt of {ester of 2-hydroxy-N-(2-hydroxypropyl)-N,N-dimethylpropan-1-aminium and [saturated fatty acid(C=10-18, normal chain) (or unsaturated fatty acid(C=18, normal chain))]}
271	7-97	alpha-(Alkyl(C=6-18))-omega-hydroxypoly[oxyethane-1,2-diyl/oxy(methylethane-1,2-diyl)](It is limited that the number-average molecular weight of the polymer is less than 1,000.)

272	7-97	alpha-Hydro-omega-[(3-methylbut-3-en-1-yl)oxy]poly(oxyethane-1,2-diyl) (The repeating number of repeating unit is an integer 1 or more.) (It is limited that the number-average molecular weight of the polymer is less than 1,000.)
273	7-141	[alpha-(Alkanoyl(C=8-18, normal chain))-omega-methoxypoly(oxyethane-1,2-diyl) or alpha-(alkenoyl(C=8-18, normal chain))-omega-methoxypoly(oxyethane-1,2-diyl)] (The repeating number of repeating unit is an integer 1 or more.) (It is limited that the number-average molecular weight of the polymer is less than 1,000.)

[Managed chemicals] 3.2.2 Water Pollution Prevention Act, Japan

3.2.2-1 Harmful Substances

1	Cadmium and its compounds
2	Cyanide compounds
3	Organic phosphorus compounds (diethyl p-nitrophenol thiophosphate (parathion) , dimethyl p-nitrophenol thiophosphate (methyl parathion) , dimethyl ethylmercaptoethyl thiophosphate (demeton methyl) and ethyl-p-nitrophenylthionobenzenephosphate (EPN) only)
4	Lead and its compounds
5	Sesivalent chrome compounds
6	Arsenic and its compounds
7	Mercury , alkyl mercury and other mercury compounds
8	PCBs
9	Trichloroethylene
10	Tetrachloroethylene
11	Dichloromethane
12	Carbon tetrachloride
13	1, 2-Dichloroethane
14	1, 1-Dichloroethylene
15	1, 2-Dichloroethylene
16	1, 1, 1-Trichloroethane
17	1, 1, 2-Trichloroethane
18	1, 3-Dichloropropene
19	Tetramethylthiuram disulfide (Thiuram)
20	2-Chloro-4,6-bis(ethylamino)-S-triazine (Simazine)
21	S-(4-Chlorobenzyl) N,N-diethylthiocarbamate (Thiobencarb)
22	Benzene
23	Selenium and its compounds
24	Boron and its compounds
25	Fluorine and its compounds
26	Ammonia, ammonium compounds, nitrite compounds and nitrate compounds
27	Vinyl chloride monomer
28	1,4-Dioxane

3.2.2-2 Designated Substances

1	Formaldehyde
2	Hydrazine
3	Hydroxylamine
4	Hydrogen peroxide
5	Hydrogen chloride
6	Sodium hydroxide
7	Acrylonitrile
8	Potassium hydroxide
9	Acrylamide
10	Acrylic acid
11	Sodium hypochlorite
12	Carbon disulfide
13	Ethyl acetate
14	Methyl t-butyl ether; MTBE
15	Sulfuric acid
16	Phosgene
17	1,2-Dichloropropane
18	Chlorosulfonic acid
19	Thionyl dichloride
20	Chloroform
21	Dimethyl sulfate
22	Chloropicrin
23	Dimethyl 2,2-dichlorovinyl phosphate; Dichlorvos; DDVP
24	Dimethyl ethylsulfinyl isopropyl thiophosphate; Oxydeprofos; ESP
25	Toluene
26	Epichlorohydrin
27	Styrene
28	Xylene
29	p-Dichlorobenzene
30	2-sec-Butylphenyl N-methylcarbamate; fenobucarb; BPMC
31	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide; propyzamide
32	Tetrachloroisophthalonitrile; chlorothalonil; TPN
33	O,O-Dimethyl O-3-methyl-4-nitrophenyl phosphorothioate; fenitrothion; MEP
34	S-Benzyl O,O-diisopropyl phosphorothioate; iprobenfos; IBP
35	Diisopropyl 1,3-dithiolan-2-ylidenemalonate; isoprothiolane
36	O,O-Diethyl O-2-isopropyl-6-methyl-4-pyrimidinyl phosphorothioate; diazinon
37	O,O-Diethyl O-5-phenyl-3-isoxazolyl phosphorothioate; isoxathion
38	2,4,6-Trichlorophenyl-4'-nitrophenylether; Chlornitrofen; CNP
39	O,O-Diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate; chlorpyrifos
40	Bis(2-ethylhexyl) phthalate
41	Ethyl (Z)-3-[N-benzyl-N-[[methyl(1-methylthioethylideneaminooxycarbonyl)amino]thio]amino]propionate; alanycarb

42	1, 2, 4, 5, 6, 7, 8, 8-Octachloro-2, 3, 3a, 4, 7, 7a-hexahydro-4, 7-methano-1H-indene; Chlordane
43	Bromine
44	Aluminium and its compounds
45	Nickel and its compounds
46	Molybdenum and its compounds
47	Antimony and its compounds
48	Chloric acid and its salts
49	Bromic acid and its salts
50	Chromium and its compounds, except for chromium(VI) compounds
51	Manganese and its compounds
52	Iron and its compounds
53	Copper and its compounds
54	Zinc and its compounds
55	Phenols and its salts
56	1, 3, 5, 7-Tetraazatricyclo[3. 3. 1. 1(3, 7)]decane; hexamethylenetetramine
57	Aniline
58	Perfluorooctanoic acid (PFOA) and its salts
59	Perfluoro(octane-1-sulfonic acid) (PFOS) and its salts
60	Linear alkylbenzenesulfonic acid and its salts

3. 2. 2-3 Oil

1	Crude oil
2	Heavy oil
3	Lubricating oil
4	Diesel oil
5	Kerosene
6	Gasoline
7	Animal and vegetable oils

[Managed chemicals] 3.2.3 Volatile organic compounds (VOC)

Order	Substance name	CAS RN®
1	Toluene	108-88-3
2	Xylene	1330-20-7
3	1, 3, 5-Trimethylbenzene	108-67-8
4	Ethyl acetate	141-78-6
5	Deccan	124-18-5
6	Methanol	67-56-1
7	Dichloromethane	75-09-2
8	Methyl ethyl ketone	78-93-3
9	n-Butane	106-97-8
10	Isobutane	75-28-5
11	Trichloroethylene	79-01-6
12	Isopropanol	67-30-0
13	Butyl acetate	123-86-4
14	Acetone	67-64-1
15	Methyl isobutyl ketone	108-10-1
16	2-Butoxyethanol, 2-tert-Butoxyethanol	111-76-2 7580-85-0
17	n-Hexane	110-54-3
18	n-Butanol	78-92-2
19	n-Pentane	109-66-0
20	cis-2-Butene	107-01-7
21	Isobutanol	78-83-1
22	Propylene glycol monomethyl ether	107-98-2
23	Tetrachloroethylene	127-18-4
24	Cyclohexane	110-82-7
25	Propyl acetate	109-60-4
26	trans-2-Butene	624-64-6
27	2-Ethoxyethanol	110-80-5
28	Undecane	1120-21-4
29	Nonane	111-84-2
30	2-Propanol, 1-methoxy-, acetate	108-65-6
31	2-Methylpentane	107-83-5
32	Ethylene glycol	107-21-1
33	2-Methyl-2-butene	513-35-9
34	Ethylcyclohexane	1678-91-7
35	Tetraline	119-64-2
36	2-Heptanone	110-43-0
37	Hexan-2-one	591-78-6
38	Chloromethane	74-87-3
39	Benzyl alcohol	100-51-6
40	Cyclopentanone	120-92-3

41	2-Methyl-1-butene	563-46-2
42	n-Heptane	142-82-5
43	Bicyclohexyl	92-51-3
44	N,N-Dimethylformamide	68-12-2
45	trans-2-Pentene	646-04-8
46	cis-2-Pentene	627-20-3
47	Styrene	100-42-5
48	1-Methyl-2-pyrrolidone	872-50-4
49	2-Ethoxyethyl acetate	111-15-9
50	Benzene	71-43-2
51	Isoholone	78-59-1
52	Cyclohexanone	108-94-1
53	Ethanol	64-17-5
54	Methylcyclopentane	96-37-7
55	Vinyl acetate	108-05-4
56	3-Methylhexane	589-34-4
57	2,3-Dimethylbutane	79-29-8
58	2,2-Dimethylbutane	75-83-2
59	Methylcyclohexane	108-87-2
60	2-Isopropoxyethanol	109-59-1
61	1,2-Dichloroethane	107-06-2
62	PVC monomer	75-01-4
63	Tetrafluoroethylene	116-14-3
64	Ethylbenzene	100-41-4
65	Cumene	98-82-8
66	Chloroethane	75-00-3
67	Trichloroethane	71-55-6
68	Acrylonitrile	107-13-1
69	Tetrahydrofuran	109-99-9
70	2-Methoxyethanol	109-86-4
71	1-Bromopropane	106-94-5
72	Methyl methacrylate	80-62-6
73	1,3-Butadiene	106-99-0
74	1,1-Dichloroethylene	75-35-4
75	2,4-Dimethylpentane	142-82-5
76	2-Methyloxirane	75-56-9
77	Chloroform	67-66-3
78	Bromomethane	74-83-9
79	4-Isopropenyl-1-methylcyclohexene	7705-14-8
80	1-Heptene	592-76-7
81	1,4-Dioxane	123-91-1
82	Acetonitrile	75-05-8
83	Allyl chloride	107-05-1
84	Acrylic acid	79-10-7
85	Isoprene	78-79-5

86	Acetaldehyde	75-07-0
87	1,2-Dichloropropane	78-87-5
88	2-Methoxyethyl acetate	110-49-6
89	Oxirane	75-21-8
90	o-Dichlorobenzene	95-50-1
91	Chlorobenzene	108-90-7
92	Methyl formate	107-31-3
93	Triethylamine	121-44-8
94	3-Methylheptane	589-81-1
95	Phenol	108-95-2
96	Naphthalene	90-30-2
97	Methyl acrylate	96-33-3
98	Cyclohexylamine	108-91-8
99	Formaldehyde	50-00-0
100	2-(Chloromethyl)oxirane	106-89-8

[Managed chemicals] 3.2.4 Soil Contamination Countermeasures Act, Japan

1	Cadmium and its compounds	Class 2
2	Sesivalent chrome compounds	Class 2
3	Chloroethylene; Vinyl chloride; Vinyl chloride monomer	Class 1
4	2-Chloro-4,6-bis(ethylamino)-1,3,5-triazine; shimazine; CAT	Class 3
5	Cyanide compounds	Class 2
6	S-4-chlorobenzyl diethylthiocarbamate	Class 3
7	Carbon tetrachloride	Class 1
8	1, 2-Dichloroethane	Class 1
9	1, 1-Dichloroethylene	Class 1
10	1, 2-Dichloroethylene	Class 1
11	1, 3-Dichloropropene	Class 1
12	Dichloromethane	Class 1
13	Mercury and its compounds	Class 2
14	Selenium and its compounds	Class 2
15	Tetrachloroethylene	Class 1
16	Tetramethylthiuram disulfide	Class 3
17	1, 1, 1-Trichloroethane	Class 1
18	1, 1, 2-Trichloroethane	Class 1
19	Trichloroethylene	Class 1
20	Lead and its compounds	Class 2
21	Arsenic and its compounds	Class 2
22	Fluorine and its compounds	Class 2
23	Benzene	Class 1
24	Boron and its compounds	Class 2
25	PCBs	Class 3
26	Organic phosphorus compounds (diethyl p-nitrophenol thiophosphate (parathion) , dimethyl p-nitrophenol thiophosphate (methyl parathion) , dimethyl ethylmercaptoethyl thiophosphate (demeton methyl) and ethyl-p-nitrophenylthionobenzenephosphate (EPN) only)	Class 3

[Managed chemicals] 3.2.5 Conflict minerals

DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT (USA)

Public Law 111-203, 111th Congress (2010)

SEC. 1502. CONFLICT MINERALS.

(a) Sense of Congress on Exploitation and Trade of Conflict Minerals Originating in the Democratic Republic of the Congo.--It is the sense of Congress that the exploitation and trade of conflict minerals originating in the Democratic Republic of the Congo is helping to finance conflict characterized by extreme levels of violence in the eastern Democratic Republic of the Congo, particularly sexual- and gender-based violence, and contributing to an emergency humanitarian situation therein, warranting the provisions of section 13(p) of the Securities Exchange Act of 1934, as added by subsection (b).

Are any of the following metals intentionally included because they are necessary for the product's specifications or function?
Are any of the following metals contained in the product because they are required in the production process, although they are not necessary for the specification or function of the product?
Are any of the constituent materials of the product contained in accordance with the above conditions?

Substances
gold
tantalum
tungsten
tin

From the perspective of responsible mineral procurement, we also request the following substances to be managed in the same way as gold, tantalum, tungsten and tin.

Substances
cobalt
mica*

* When mica is included, please also specify whether it is natural or synthetic mica.

[Managed chemicals] 3.2.6 Biocide

Concerning the making available on the market and use of biocidal products (EU)

REGULATION (EU) No 528/2012

Article 3 Definitions 1.1. For the purposes of this Regulation, the following definitions shall apply:

(a) 'biocidal product' means

- any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action,
- any substance or mixture, generated from substances or mixtures which do not themselves fall under the first indent, to be used with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action.

A treated article that has a primary biocidal function shall be considered a biocidal product.

Does the product contain any substances that fall within the above conditions?
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[Managed chemicals] 3.2.7 New SVHC candidate or new SVHC substances

(Not yet including in ChemSHERPA)

29th SVHC, 2 substances (2023/06/14)

Name	EC Number	CAS RN®
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	278-355-8	75980-60-8
Bis(4-chlorophenyl) sulphone	201-247-9	80-07-9

G/TBT/N/EU/803 - WTO

Name	EC Number	CAS RN®
Resorcinol	203-585-2	108-46-3

<https://ec.europa.eu/transparency/comitology-register/screen/documents/075559/4/consult?lang=en>

[Managed chemicals] 3.2.8 Others

Substances	Scope
Nonylphenol and its derivatives Octylphenol and its derivatives Other alkylphenol and its derivatives (Including all of linear and branched isomers, and their alkoxyates)	—
Azo compounds (Dyes and pigments, and others)	Carcinogenic amine structure POPs substances as an impurity
Polyaromatic hydrocarbons (Fused substances of aromatic structures)	Carcinogenic polyaromatic hydrocarbons
Organic halogen compounds (Halogen (fluoride, chloride, bromide, and iodide) atom directly bonded to carbon atom compounds)	Any kind of regulations and guidelines POPs substances as an impurity
Palm oil, palm kernel oil, and their derivatives	Concern of environmental and human right (Certification and self audit)
Woods and related compounds (Wood, pulp, cellulose, paper, biomass, their byproducts and their derivatives)	Concern of environmental and human right (Certification and self audit)
Natural rubber and their derivatives (Natural rubber, latex and derivatives)	Concern of environmental and human right (Certification and self audit)
nanomaterials (Primary particles, at least of one dimension diameter 1-100 nm)	Hazard (Concern of unknown hazard)
micro plastics (diameter or edge less than 5 mm)	Global environment (especially aquatic organisms)

Revision history

Rev.	Date (YYYY/MM/DD)	Details
0	2014/3/25	
1	2014/10/15	Updated list of substances
2	2017/6/13	<p>Chemical substances reviewed, updated list of substances In the face of stricter management regulations on chemical substances due to changes in scientific knowledge and social conditions, we conducted a major review of the chemical substances subject to control by our company with the aim of simplifying information management.</p> <p>The changes further clarified the use of chemSHERPA (MSDSplus), a standard tool for communicating information on chemical substances in products, for items for which management regulations are revised more frequently, with the aim of simplifying management both internally and externally.</p>
3	2017/9/11	<p>Updated list of substances</p> <p>Following the publication of chemSHERPA and MSDSplus, which reflect the SVHC 17th candidate substances, we updated to the latest versions of each tool.</p>
4	2018/2/28	<p>Updated list of substances</p> <p>In order to rationalize responses during the period between the announcement of candidate substances for listing as SVHC (Substances of very high concern) and the announcement of substances to be listed and the revision of chemSHERPA, we designated SVHC candidate substances and substances to be revised that are not reflected in chemSHERPA as substances subject to our own management regulations. The list also includes the SVHC 18th candidate substances for which public opinion was being sought as of the revision date. We updated version information on chemSHERPA and MSDSplus used for communicating information on chemical substances in products following the release of new versions of chemSHERPA and MSDSplus reflecting the SVHC 18th candidate substances decision.</p>
5	2018/3/15	<p>Updated list of substances</p> <p>Following the announcement of the candidate substances for the SVHC 19th candidate substances, we included these substances in the survey.</p>
6	2018/4/26	Updated list of substances

		<p>We updated our lists to reflect the designations and revocations of chemical substances in March/April 2018 under the Chemical Substances Control Act including the Class I Specified substances, monitoring and priority assessment chemical substances lists.</p> <p>Following the European Commission decision to add SVHC, these substances were included in the scope of the study.</p>
7	2018/8/27	<p>Updated list of substances</p> <p>We updated version information on chemSHERPA used for communicating information on chemical substances in products following the release of a new version of chemSHERPA reflecting the decision on additional listing of the SVHC 19th candidate substances.</p> <p>Also, as support for MSDSplus ended in June 2018, MSDSplus-related statements were deleted.</p>
8	2018/9/6	<p>Updated list of substances</p> <p>Following the announcement of the SVHC 20th candidate substances, these substances were included in our survey.</p>
9	2019/1/18	<p>Updated list of substances</p> <p>Following the announcement of the SVHC 20th candidate substances, these substances were included in our survey.</p>
10 (Ver. 2.20)	2019/5/17	<p>We clarified the positioning of "prohibited chemical substances", "chemical substances to be reduced" and "chemical substances to be controlled" within our company.</p>
		<p>As progress has been made in reducing the use of nonylphenol compounds, we moved these from the list of chemical substances to be reduced to the list of chemical substances to be controlled.</p>
		<p>Updated list of substances</p> <p>We updated to the latest version of chemSHERPA following announcement of the new version.</p> <p>We updated the list following the decision on the Priority Assessment Chemical Substances for 2019.</p> <p>We added cobalt and mica to the list of conflict minerals from the perspective of responsible mineral sourcing.</p> <p>Following the announcement of the SVHC 21th candidate substances, we included these substances in our survey.</p> <p>We added "nonylphenols" to our list of chemical substances to be controlled.</p>
		<p>We checked and updated information on other latest versions of laws and regulations to the latest effective date. The URLs cited were also checked and updated to</p>

		ensure consistency with the corresponding external information.
11 (Ver. 2.21)	2019/11/20	<p>Updated list of substances</p> <p>The latest laws and regulations have been checked and the date of the last update of each law and regulation has been changed.</p> <p>We updated to the latest version of chemSHERPA following announcement of the new version.</p> <p>Following the announcement of the SVHC 21st candidate substances, these substances were included in our survey.</p>
12 (Ver. 2.30)	2020/7/1	<p>Updated list of substances</p> <p>The latest laws and regulations have been checked and the date of the last update of each law and regulation has been changed.</p> <p>We updated to the latest version of chemSHERPA following announcement of the new version.</p> <p>We updated monitoring chemicals and priority assessment chemicals as of April 1st 2020.</p> <p>Following the announcement of the SVHC 23rd candidate substances, we included these substances in our survey.</p>
13 (Ver. 2.40)	2021/7/1	<p>Updated list of substances</p> <p>The latest laws and regulations have been checked and the date of the last update of each law and regulation has been changed.</p> <p>We added information on the revision of Class I Specified Chemical Substances of the Chemical Substances Control Act, scheduled to enter into force on October 22nd 2021.</p> <p>We updated to the latest version following the announcement of updates to chemSHERPA.</p> <p>We updated monitoring chemicals and priority assessment chemicals as of April 1st 2021.</p> <p>Following the announcement of the SVHC 25th candidate substances and the WTO/TBT notification of the SVHC listing of resorcinol, we added these substances to our survey list.</p> <p>We also listed alkylphenol compounds other than nonylphenol and octyl phenol (other than C8 and C9) in our survey list.</p>
14 (Ver. 2.50)	2022/7/1	<p>Updated list of substances</p> <p>The latest laws and regulations have been checked and the date of the last update of each law and regulation has been changed.</p>

		<p>We updated to the latest version following the announcement of updates to chemSHERPA.</p> <p>We updated monitoring chemicals and priority assessment chemicals as of April 1st 2022.</p> <p>We amended the CAS RN® of the volatile organic compound "16 butyl cellosolve".</p> <p>Following the announcement of the SVHC 27th candidate substances and the WTO/TBT notification of the SVHC listing of resorcinol, we added these substances to our survey list.</p>
15 (Ver. 2.60)	2023/7/26	<p>Updated list of substances</p> <p>We added list of designated substances by 'Soil Contamination Countermeasures Act, Japan' from the perspective of responsible soil pollution.</p> <p>The latest laws and regulations have been checked and the date of the last update of each law and regulation has been changed.</p> <p>We have changed the description for chemSHERPA to download the latest version from the website.</p> <p>We updated monitoring chemicals and priority assessment chemicals as of April 1st 2023.</p> <p>In the list of Water Pollution Prevention Act, Japan, we added four substances as Designated Substances from update of law and seven kinds of oils as 'oil'.</p> <p>Following the announcement of the SVHC 29th candidate substances and the WTO/TBT notification of the SVHC listing of resorcinol, we added these substances to our survey list.</p> <p>We added two chemical substances to be reduced.</p>