

NITTO KOHKI GROUP
GREEN PROCUREMENT STANDARD

Edition 9.3

Prepared : July 26, 2004

Revised: April 1, 2021

Scope of disclosure

- 1) NITTO KOHKI Group
- 2) Suppliers related to product production of NITTO KOHKI Co., Ltd.
NITTO KOHKI Green Procurement Standards would be confidential information,
so please handle with care.



NITTO KOHKI CO., LTD.
Green Procurement Committee

Notes;

- *These contents are based on the Japanese version.
- If there is any unclear content, please refer to the Japanese version.

Green Procurement Standard : Revision history

| Edition | Date | Details of revision |
|---------|----------------|---|
| 1.0 | Jul. 26, 2004 | Make up new guidelines in Japanese and English. |
| 9.3 | April. 1, 2021 | <p>Revised to Ver 9.3</p> <ul style="list-style-type: none"> - Added new two substance in 24th SVHC. - Changed the description of contents related to "Annex XIV (Substances subject to authorization) because of having been expired some substances. - For some of the RoHS II Directive for Lead exemption, "the standard of classification" and "The deadline for prohibiting delivery to NK" have been changed because the deadline has not been determined due to being "under discussion" about postponement. - Added two substances related to TSCA PBT to "NK-02". <p>(1) Revised Details of attached table EC-810-05-01 "Document No.NK-02 [List of chemical substances controlled by NITTO KOHKI]".</p> <ul style="list-style-type: none"> ① Changed the item name of "Remarks" to "Delivery prohibition date to NK". ② No.2 Lead / Lead Compounds: <ul style="list-style-type: none"> Exemptions (6 (a), 6 (a) -I, 6 (b), 6 (b) -I, 6 (b) -II, 6 (c), 7 (a), 7 (c) -I, 7 (c) -II, 15 (a), 24) (a) Changed the standard of classification from "A(Banned substances)" to "B(Substances to be banned)". (b) Changed the date in the "The deadline for prohibiting delivery to NK" column to "*7under discussion " and described the explanation in the note. ③ No.4,5: <ul style="list-style-type: none"> Added "Intentional use" in "the Prohibited Criteria" and "US/TSCA Toxic Substances Control Act" in "Laws and Regulations". ④ No.14 Polybrominated Diphenylethers (PBDEs) : <ul style="list-style-type: none"> Added the line of "Decabromodiphenyl ether (DBDPE) " and added the following in each item in the line: <ul style="list-style-type: none"> (a) Added "Intentional use" in "the Prohibited Criteria" (b) Added "Immediately" in "The deadline for prohibiting delivery to NK" (c) Added following in "Laws and Regulations" : <ul style="list-style-type: none"> - "Japan/Chemical Substance Control Law " - "EU/RoHS Directive (2011/65/EU)" - "EU/POPs Regulation (EU) No 2019/1021" - "US/TSCA Toxic Substances Control Act" ⑤ No.19:Diocetyl tin (DOT) compounds <ul style="list-style-type: none"> Changed the sentence of "0.1wt% (1,000 ppm) of tin in homogeneous materials" to "0.1wt% (1,000 ppm) of parts of tin in homogeneous materials except for the above ." ⑥ No.1,2,3,4,17,18,19: <ul style="list-style-type: none"> Changed the note in the Prohibited Criteria to Note 8 and described the explanation in the note. ⑦ No.43,44: <ul style="list-style-type: none"> Added following two substances related to TSCA PBT. <ul style="list-style-type: none"> (a) No.43 "Phenol, isopropylated phosphate (3:1)" (b) No.44 "Pentachlorothiophenol" <p>(2) Revised Details of attached table EC-810-05-03 "Management object substances of REACH regulation (SVHC)"</p> <ul style="list-style-type: none"> ① 210. - 211. : Added new substance in 24th SVHC ② Changed the description of "Annex XIV (Substances subject to authorization "○","●") / Annex XVII (restricted substances)" to "Annex XIV (Substances subject to authorization "○","●") /EU POPs Regulation(▲)". ③ Column of "Annex XIV (Substances subject to authorization "○","●") /EU POPs Regulation(▲) ": <ul style="list-style-type: none"> (a) Changed the mark of "○" to "●": No.16,21,93,94 (b) Changed "EU POPs Regulation: Similar application" to "EU POPs Regulation": No.85,144 ④ Note: <ul style="list-style-type: none"> About explanation in Column of "Annex XIV (Substances subject to authorization "○","●") /EU POPs Regulation(▲)", Changed "restricted substances (Annex XVII) of the REACH regulation" to "restricted substances of EU POPs Regulation". |

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| | | <p>(3) Revised Details of attached table Table EC-810-05-05 "The list of definition of terms"</p> <ul style="list-style-type: none">① Added new terms: No.3,20,26,43② Added new sentence "It corresponds to SCIP from Ver.2.02 revised in October 2020.": No.31 |
|--|--|--|

| | Page |
|--|-------|
| 0. Table of contents | 1 |
| 1. Green Procurement and Green Procurement Standards | 2 |
| 2. Green Procurement Standard requirement item (Requirement item to suppliers) | 2 |
| 3. Compliance with NK-02 | 2~4 |
| 4. Survey of Chemical Substances and Provision of information | 5~8 |
| 5. Management system of chemical substances contained in products | 9 |
| 6. Other requirements item to suppliers | 10~11 |
| 7. Analysis of chemical substances | 12 |
| 8. The Green Procurement of NITTO KOHKI | 13 |
| 9. Definition of terms | 13 |

Attached Tables;

- Table EC-810-05-01 Document No.NK-02 "List of chemical substances controlled by NITTO KOHKI "
- Table EC-810-05-02 "List of a typical example of chemical substances"
- Table EC-810-05-03 "Management object substances of REACH regulation (SVHC)"
- Table EC-810-05-04 "List of environmental management substances shall be prohibited by Japanese laws and regulations"
- Table EC-810-05-05 "The list of definition of terms"

Notes;

- *For the terms marked with" *" in the text, please refer to Attached Table 05.
- *For tables 1 to 4, the explanation is described in "3. Compliance with NK-02".

1.Green Procurement and Green Procurement Standards

- (1) Green procurement is an activity to procure materials, parts, etc. that reduce harmful chemical substances to the environment with priority.
- (2) The green procurement standard is a rule aimed at the following.
 - ① Inform about the basic idea of NITTO KOHKI* relating to green procurement.
 - ② In green procurement, present the specific content to ask the suppliers.

2. Green Procurement Standard requirement item (Requirement item to suppliers)

NITTO KOHKI group selects suppliers by following requirement items in addition to take into account conventional prerequisites for procurement such as quality, cost and delivery .

- (1) Compliance with NK-02* **【Mandatory】**
Please compliance with NK-02,when delivering products to NITTO KOHKI.
*For details, please refer to paragraph 3.
- (2) Survey of Chemical Substances and Provision of information **【Mandatory】**
Please survey and provide (report) information on chemical substances contained in delivered items.
*For details, please refer to paragraph 4.
- (3) Establishment of management system of chemical substances contained in products* **【Mandatory】**
*For details, please refer to paragraph 5.
- (4) Establishment of environmental management system* **【Encouragement】**
*For details, please refer to paragraph 5.
- (5) To make the suppliers second and third from the perspective of NITTO KOHKI comply with the above requirement items (1) to (4) **【Encouragement】**

3. Compliance with NK-02 【Mandatory】

Requests suppliers to comply with NK-02,when delivering products to NITTO KOHKI.

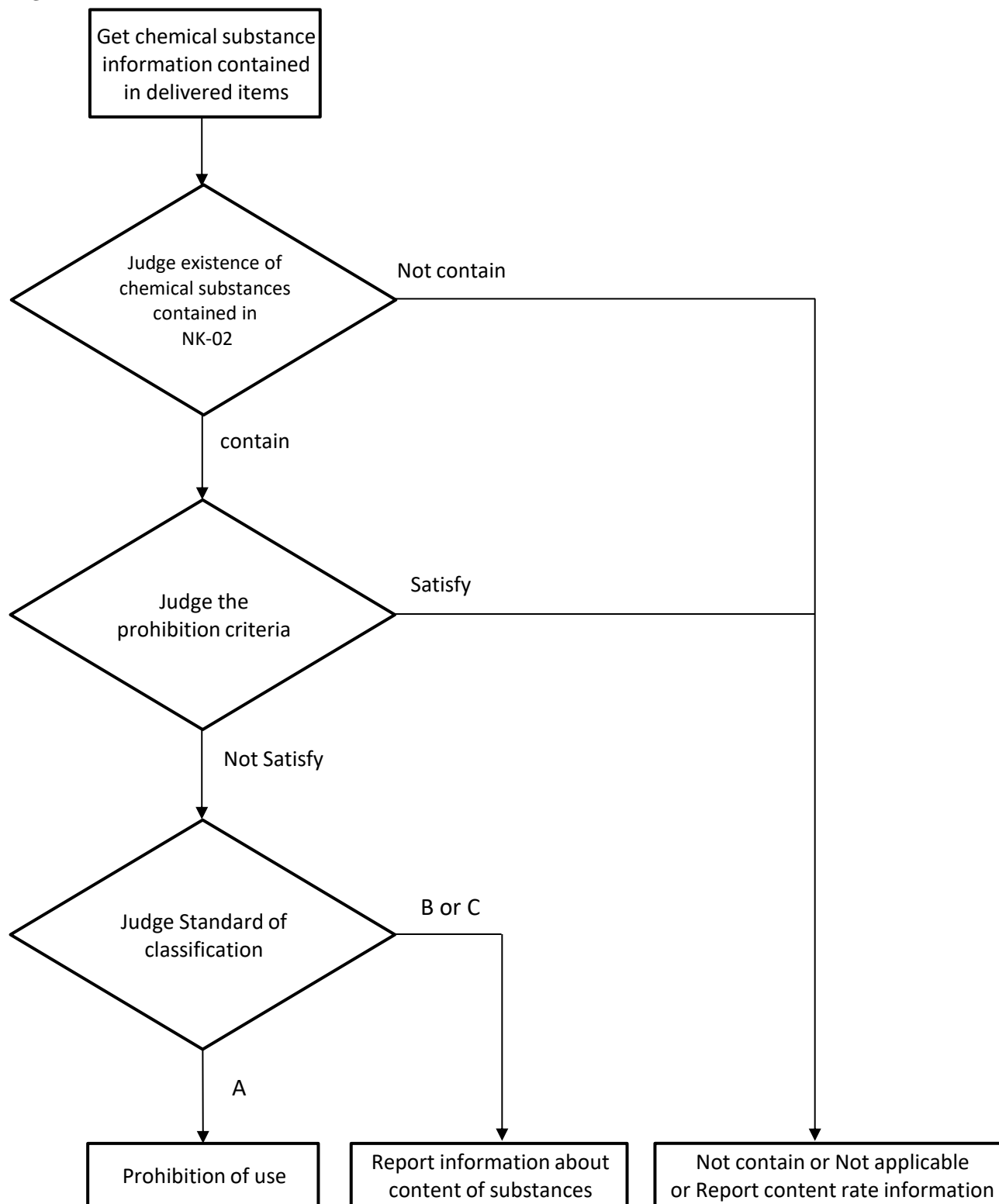
Please confirm the sections 3-1 to 3-4 below for Specific countermeasures.

3-1 Supplier-side judgment correspondence matter

- (1) Please get the information on the chemical substances contained in the delivered items.
- (2) Please judge whether the chemicals listed in NK-02 are contained in delivered items.
- (3) Please judge the prohibition criteria described in NK-02.
- (4) Please judge the Standard of classification described in NK-02.
- (5) If applicable to control classification A, It's prohibited.
- (6) If applicable to control classification B or C, please report the content information.
- (7) If there is no problem with the items (2) to (3) above, please report non-contained or application non-applicable or content rate information.
- (8) For the flow of judgment correspondence, please refer to "The Flow chart of decision support" in section 3-2.

3-2 The Flow chart of decision support

FIG.1



3-3 Chemical substances managed by NITTO KOHKI

(1) The attached Table EC-810-05-01, Document No. NK-02, "List of Chemical Management Substances"

We have established "Standard of classification" for each substance.

Please follow the following "(2)Standard of classification".

(2) Standard of classification

Standard of classification set by NITTO KOHKI is three levels of ① ~ ③ below.

① Level A: Banned substances

Use for restricted applications and inclusion above threshold* are prohibited.

② Level B: Substances to be banned

They are treated as 'Level C until the deadline set by NITTO KOHKI, and Level A when the deadline is reached.

③ Level C: Containment controlled substances

If It's contained in the delivered item, please report the information about content of substances.

(3) The attached Table EC-810-05-02, "List of a typical example of chemical substances."

① Representative examples of the above-mentioned chemical substances and compounds of NK-02 are listed.

② For the listed chemical substances and compounds, the Standard of classification of NK-02 and the timing of prohibition* are applied.

③ The following chemical substances that comply with regulations are described and managed in this appendix. It is a "banned substances".

a) REGULATION (EU) No 517/2014

b) Ozone Layer Protection Law (Japan) / Specified Substances

(4) The attached Table EC-810-05-03 "Management object substances of REACH* regulation (SVHC*)"

① Annex XIV (Substances subject to authorisation): Level A

② SVHC(Candidate list): Level C(Some of them are Level B)

(5) The attached Table EC-810-05-04, "List of environmental management substances shall be prohibited by Japanese laws and regulations*".

The prohibited substances under the Japanese laws and regulations are as follows.

We are obliged to correspond for regulations.

a) Law on Chemical Substitution • Class 1 Specified Chemical Substance

b) The industrial safety and health law • chemical substances prohibited to be manufactured

c) Poisonous and deleterious substance control law • Specific toxic substances

*The above chemical substances in NK-02 and (3) to (5) above are partially shown in duplicate.

3-4 Method of reporting

Please refer to section 4-3 and report information on chemical substances used, parts used, contents etc.

4. Survey of Chemical Substances and Provision of information【Mandatory】

When NITTO KOHKI request information on chemical substances contained in delivered items, please "survey" and "provide information". Please refer to Sections 4-1 to 4-10 below for investigation and reporting method.

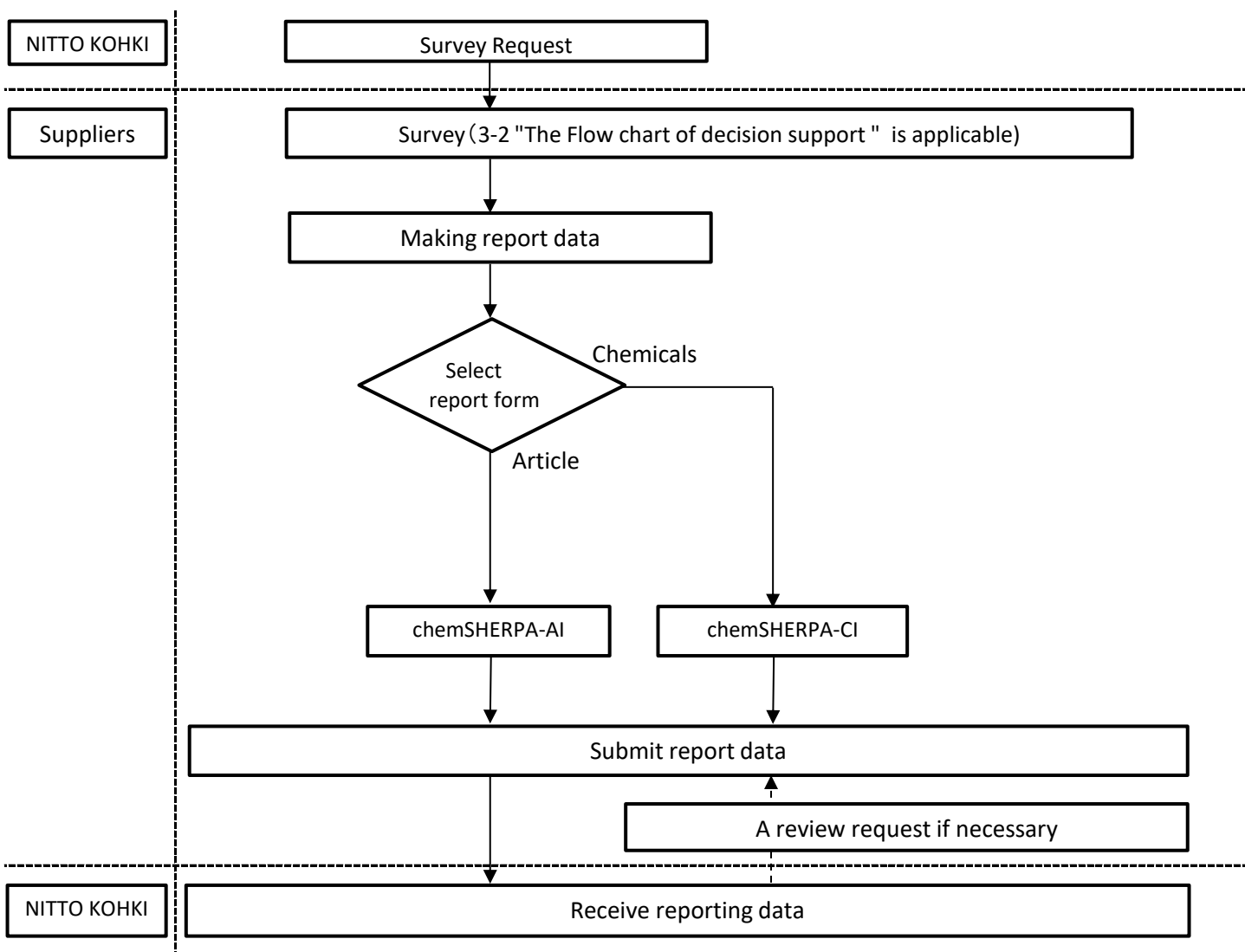
*Sections 4-1 to 4-4 are "must read", please read sections 4-5 to 4-10 "as necessary".

4-1 Correspondence matter in supplier-side 【Must read】

- (1) Please survey chemical substances contained in the delivered items and report the results.
- (2) Regardless of the presence or absence of chemical substances controlled by NITTO KOHKI, please report the information about content of substances.
- (3) For the flow of correspondence, please refer to the flow chart corresponding to Section 4-2 "Correspondence flow chart of Survey and Provision of information".

4-2 Correspondence flow chart of Survey and Provision of information【Must read】

FIG.2



4-3 Method of provision (report) for information 【Must read】

- (1) Please report information about content of chemical substances in the following format.
 - ① chemSHERPA-AI*
 - ② chemSHERPA-CI*
- (2) If the delivered item is an article* (parts etc.), please report it with "① chemSHERPA-AI" .
- (3) If the delivered product is a chemical product* (material or preparation), please report it with "② chemSHERPA - CI".
- (4) Please download "①② chemSHERPA (-CI / - AI)" from the following website to download the latest version. Operation method (operation manual) can also be downloaded from the following website at the same time.
 - ・ chemSHERPA(-CI/-AI) <https://chemsherpa.net/english/tool>
- (5) If there are any questions for unclear points on the operation, please contact the contact person in charge of NITTO KOHKI.

4-4 Storage of survey sheet 【Must read】

- (1) Please ensure to keep "analysis data", "ingredient data" etc. obtained to make survey data.
- (2) If there are requests for submission from NITTO KOHKI, please manage so that it can be submitted promptly.

Storage limitation : 10 years after obtaining

4-5 Reference matter for research correspondence

- (1) Conduct a survey on each component when the investigation object (Delivered items) is a semi-finished product composed of a plural number of components.
- (2) Please survey the chemicals of all parts as component. It's usually composed of several components (parts, raw materials, surface treatment, etc.).
- (3) Investigation according to relevant agreement items is requested for products in scope of agreements concluded with NITTO KOHKI.
- (4) A reminder email will be sent from the contact person in charge of NITTO KOHKI when the deadline to reply to the survey has passed.
- (5) The contact person in charge of NITTO KOHKI will contact you when there is any unclear issue regarding the replied survey results. Please cooperate to solve unclear issues.

4-6 Concept of heat treatment, surface treatment (plating, painting), adhesive

- (1) Content report of the chemical substances in heat treatment process is unnecessary since heat treatment (quenching tempering, carburizing, nitriding, etc.) is reforming process of the base material.
- (2) The chemical substances that contain plating film, coating, etc.
 - ① They are the substances that remain (separate) in the plating film, coating, etc. after drying or hardening in the treatment process
 - ② It's not a part of the component or component amount of chemicals used in the treatment process.
- (3) Suppliers are requested to report not the component before the application but the component of after hardening, reaction and drying for adhesive agents.

4-7 Concept of contained

- (1) Environmental management substances are deemed to be apparently contained in products regardless of the component or the amount of content when relevant environmental management substances are "intentionally added".
- (2) Even if not intentionally added, in principle, please report the amount if you know the content.
- (3) With regard to substances of which contained amount suppliers don't describe, suppliers are deemed not to add such substances to products.

4-8 Calculation of contained amount

- (1) Suppliers are requested to inform NITTO KOHKI group of either actual measurement value*, controlled value*, theoretical value* or calculated value* of the contained amount of chemical substances.
- (2) If the contained amount has some range of value, then suppliers shall inform NITTO KOHKI group of the maximum value.
- (3) For content calculation of parts, please survey and sum up the following.
 - ① Chemical substances changed through manufacturing process.
 - ② Chemical substances contained in materials composing the relevant part.

4-9 Calculation of contained amount in product with surface treatment

Please report the content of "Surface-treated part" of the surface treatment parts (plating, painting, etc.) with the value of the unit area (1cm²) .

4-10 Inquiry regarding the survey sheet

Inquire the contact person in charge of NITTO KOHKI.

FIG.3 Chemical substance survey management diagram

1) : Order for reply / ① : Type of reply (S) : Start of supplier correspondence / (E) : End of supplier correspondence

| Contents | NITTO KOHKI | Order Reply | Suppliers of procured item | Order Reply | Raw material manufacturer or Analytical laboratory |
|---|--|------------------|---|----------------|---|
| (1) Distribution of GREEN PROCUREMENT STANDARD | 1) Request for confirming ① Request for Downloading from the Homepage. ② Distribution | → | 2) Confirm the contents (S/E) ① Download ② Receiving | | |
| (2) Survey at the time of New Transaction (procurement and change the suppliers) | 1) Request for the data 5) Receiving and confirming the data | → ← | 2) Request for survey or analysis (S) 4) Prepare and submit the data (E) chemSHERPA | → ← | Raw material manufacturer 3) Reply |
| (3) Changes in criteria, etc., and resurvey associated with changes in standards etc. | 1) Request for the data 5) Receiving and confirming the data | → ← | 2) Request for survey or analytical (S) 4) Prepare and submit the data (E) chemSHERPA | → ← | Raw material manufacturer 3) Reply |
| (4) Detail data if necessary | 1) Request for the data 5) Receiving and confirming the data | → ← | 2) Request for survey or analytical (S) 4) Prepare and submit the data (E) ① Analysis data ② Constituent data (Mill test report, SDS, etc.) | → ← | Raw material manufacturer or Analytical laboratory 3) Reply or report for result |
| (5) Conformity check at the time of Delivery | 1) Request for confirming the conformity of the products delivered 5) Confirms and check that Delivery Sheet "conforms to NK-02" | → ← | 2) Confirming the conformity of GREEN PROCUREMENT STANDARD (S) 3) Confirms that Delivery Sheet "conforms to NK-02" (check by "O" or "✓") 4) Delivery (Delivered Product and Slip) (E) | | |
| (6) Confirming At the time of Change in manufacturing processes or employed raw materials | 2) Request for the data chemSHERPA 6) Receiving and confirming the data 7) Change the design (when necessary) 8) Acceptance of the change | ← → ← → | 1) Request for the change (S) ① Phone ② Verbal communication ③ E-mail 3) Request for survey or analytical 5) Prepare and submit the data chemSHERPA 9) Operation (E) | → ← | Raw material manufacturer 4) Reply |
| (7) Confirmation of CMS Establishment Status Supplier self-evaluation using JAMP check sheet - Request for answer | 1) Request for response to self-evaluation JAMP Check Sheet ① Request to Download (JAMP homepage) ② Distribution(email, etc.) 5) Receiving, confirming, and evaluating the answer | → ← → | 2) Confirmation of contents (S) ① Download ② Receive (email etc.) 3) JAMP Check Sheet "Answer" described (self-evaluation) 4) Answer submission(email etc.) 6) Confirmation of evaluation and improvement (E) (email etc.) | | |

5. Management system of chemical substances contained in products

5-1 Establishment of management system of chemical substances contained in products【Mandatory】

- (1) Suppliers are requested to formulate a management system of chemical substances contained in products to "appropriately manage chemical substances" contained in products.
- (2) A system complying with the "Guidelines for the Management of Chemical Substances in Products"* conforming to JIS Z 7201: 2012/2017* issued by JAMP is recommended when suppliers are required to develop the system.

5-2 Identification and evaluation of establishment for system to manage chemical substances contained in products by suppliers

NITTO KOHKI identifies and evaluates activities for the system to manage chemical substances contained in products by suppliers.

- (1) Check Sheet Ver4(Issued by JAMP)
 - ① The objective of this check sheet is "To confirm the management system of chemical substances contained in products" of suppliers.
 - ② This check sheet is an attachment of the "Guidelines for the Management of Chemical Substances in Products" issued by JAMP in which is a form for self auditing.
 - ③ It will be requested from the contact person in charge of NITTO KOHKI when conducting new transactions and when it would be needed. Enter the required items and submit the form.
 - ④ The submitted Check Sheet will be evaluated objectively based on the self-evaluation and final judgment where comments (improvement request) will be provided by the Quality Assurance Department.
 - ⑤ Suppliers are requested to confirm the comments and use them to improve the system to manage chemical substances in their own products.
 - ⑥ Suppliers are requested to use this check sheet to identify and evaluate the statuses of activities for the system to manage chemical substances contained in products for their suppliers.
 - ⑦ The "Guidelines for the Management of Chemical Substances in Products Ver4.0" and "Check Sheet Ver4" will be posted on the JAMP website.

<https://chemsherpa.net/english/docs/guidelines>

- (2) Confirmation by plant audit

Request for corrective action and plant audit will be implemented according to the contents of evaluation of the "Implementation Item List and Check Sheet" described in (2).

5-3 Establishment of environmental management system【Encouragement】

In order to do business activities that reduce the burden on the global environment (bad influence), It's desirable to acquire a third-party certification. Examples of third-party certifications: ISO14001

- (1) Supplier Survey Sheet of Green Procurement (Form EC-810-04-01)
 - ① The objective of this survey sheet is mainly to confirm the following two points.
 - To identify basic information
 - The statuses of activities for environment management system of suppliers
 - ② Form EC-810-04-01 "Supplier Survey Sheet of Green Procurement" will be provided from the contact person in charge of NITTO KOHKI at new transactions or when necessary.
Enter the required items and submit the form.

6. Other requirements to suppliers

6-1 Chemical substances used in manufacturing processes

Promote reduction of the substances described Table1 used in manufacturing processes as solvents* and detergents*.

Table 1 Chemical substances promoting reduction in manufacturing process

| Substance name | CAS No. | Applicable regulation |
|-------------------------|----------|--|
| (1) Trichloroethylene | 79-01-6 | Air Pollution Control Law (VOC emission controlled substance) EU/REACH regulation (SVHC list), (Annex14/Authorized substance) |
| (2) Tetrachloroethylene | 127-18-4 | Air Pollution Control Law (VOC emission controlled substance) |
| (3) Methylene chloride | 75-09-2 | Air Pollution Control Law (VOC emission controlled substance) EU/REACH regulation (Annex 17/ Restricted substance) |

6-2 Points to note at delivery

Confirm the conformity and enter a "O" or "✓ (check)" mark in the "Conforms to NK-02" column in the Delivery Sheet at the time of delivery.

6-3 Change in manufacturing processes or employed raw materials

When there is any change in a process, used raw material, etc., please submit it by chemSHERPA before implementation.

6-4 Nonconformity response

- (1) When nonconformity in the products delivered has occurred, please report immediately to the person in charge of NITTO KOHKI.
- (2) To investigate the influence of non-conforming(refer to the followings), please report immediately.
 - ① Lot
 - ② Quantity
 - ③ Non-conforming substance
 - ④ Concentration
 - ⑤ Cause etc.
- (3) Please clarify whether parts and materials containing prohibited substances are used, and if so, the parts and materials that are used.
- (4) Please clarify and thoroughly implement identification management in the receiving and storing of parts and materials, in the manufacturing process, and in shipping product management.
- (5) Corresponding to the non-conforming, in consultation with the NITTO KOHKI person in charge, please minimize the impact.
- (6) If in case it would be discovered at NITTO KOHKI
 - ① It will be informed the situation from the person in charge of NITTO KOHKI.
 - ② Please consider the range of influence, cause and measures promptly.
 - ③ Please have conferences for taking actions with person in charge of NITTO KOHKI and quality assurance department to minimize the impact.

6-5 chemSHERPA preparation reference materials (Guidance for making survey data of each industry)

- (1) Guidance is prepared by the relevant industry association to make chemSHERPA for industries related to processes and products such as trading, packaging and electric wire.
- (2) Refer to the guideline to control chemical substances contained in products of JAMP website when making chemSHERPA.

Table 2 List of guidance issued by JAMP

| | Document name | Issued by |
|------|---|--|
| (1) | Guideline to control chemical substances contained in products | JAMP / Japan Chemical Industry Association (JCIA) / The Japan Iron and Steel Federation (JISF) / Japan Plating Suppliers Association (KZK) / Advisory committee of chemical substances contained in products of four electric and electronic associations / JGPSSI |
| (2) | Implementation items list and check sheet | JAMP |
| (3) | Guidance for trading company | JAMP |
| (4) | Manual for controlling chemical substances contained in products for small to medium enterprises (Basic version) | Committee for making manual to control chemical substances contained in products / National Federation of Small Business Associations |
| (5) | Guidance for converting process (common in processes converting chemicals to article) | JAMP |
| (6) | Guidance for machining (pressing, cutting and grinding version) | JAMP |
| (7) | Guidance for coating and printing process | JAMP |
| (8) | Guidance for Mounting on printed wiring board | JAMP |
| (9) | Guidance for manufacturing of prepreg for printed wiring board and manufacturing method of printed board) | JAMP / Japan Thermosetting Plastics Industry Association |
| (10) | Guidance for electric wiring and cable | The Japanese Electric Wire & Cable Makers' Association / Japan Electric Cable Technology Center |
| (11) | Guidance for adhesive tape and adhesive sheet | Japan Adhesive Tape Manufacturers Association |
| (12) | Guidance for transport packaging | JAMP / Japan Packaging Institute (JPI) |
| (13) | Guideline of Ceramic material displayed in the electronic parts | Japan Electronics and Information Technology Industries Association |
| (14) | Guidance for management of migration contamination via contact - Perspectives of actions for phthalates restricted under the RoHS Directive - | JAMP |
| (15) | Basic document of controlling chemical substances contained in products | JAMP |

Various types of guidance can be downloaded from the JAMP website described below.

<https://chemsherpa.net/english/docs/guidelines>

7. Analysis of chemical substances

Submission of survey data may be requested. Please follow the procedure shown below when submission is requested.

7-1 Analysis target

- (1) The contact person in charge of NITTO KOHKI, will inform suppliers of items subject to survey, subject chemical substances (ex: RoHS 10 substances) etc.
- (2) Analysis request to analytical institution
 - ① Please make a survey request to the analytical agency based on sections 7-3 and 7-4.
 - ② There is no particular designation of the analytical institution if they can make report of "guarantee of lower limit of quantitation" and "issue of measurement certificate" can be carried out.

7-2 Report of analysis result

- (1) For the analysis result, please judge conformity to NK-02 and report it to NITTO KOHKI regardless of conformity.
- (2) In case of nonconformity, please implement correspondence in section 6-4.

7-3 Items of the analysis report

Please record the following information in the analysis result report when analyzing and survey.

- (1) Information on an analysis organization
 - ① Name of the organization (Common seal to be affixed)
 - ② Names of the person and the manager in charge of the analysis
 - ③ Date of report
- (2) Information on a client who ask an analysis
Name of the client (Name of a company and department in charge)
- (3) Information on the method of analysis
 - ① Selection of samples (Name of materials such as metals, plastics, etc.)
 - ② Substances to be analyzed for each of sample
- (4) Information on the method of analysis and equipment, etc.
 - ① Method of analysis・Name of equipment (Name of a manufacturer and model of equipment)
 - ② Lower limit of analysis

7-4 Analysis of packaging materials

About Package materials, it's regulated strictly by the law of chemicals.

- (1) Target substances
Heavy metals (cadmium, lead, hexavalent chromium and mercury)
- (2) Regulated concentration (threshold level)
Less than 100 ppm is determined as the threshold levels of the total-concentration of four heavy metals (cadmium, lead, hexavalent chromium and mercury) contained in each part, ink, or paint that constitutes a package.
- (3) Packing materials will comply with the content of controlled substances regulated by the EU Packing Material Directive.

8.The Green Procurement of NITTO KOHKI

8-1 Objective

- (1) Target contents of Green Procurement
 - ① Chemical substances contained in raw materials for all parts, semi-finished products, secondary materials* and manufacturing that compose NITTO KOHKI brand products.
 - ② Chemical substances in manufacturing process
- (2) To clarify substance names and manage classification of chemical substances
- (3) To promote prohibition and reduction of the use
- (4) To reduce the impact on the compliance and the environmental conservation and also the ecological system

8-2 Green procurement policy

- (1) NITTO KOHKI procures raw materials, parts, products and secondary materials (hereinafter referred to as "procured items") conforming to laws and regulations related to chemical substances.
- (2) NITTO KOHKI prohibits or reduces the use of chemical substances harmful to people and environment in the manufacturing process.
- (3) NITTO KOHKI requests to suppliers to establish a Quality and Environmental management system and a system to manage chemical substances contained in products, and gives priority to procure from suppliers that have been established.
- (4) NITTO KOHKI identifies information of chemical substances contained in products to satisfy demands from clients and promotes disclosure of information.

8-3 Scope of application

This standard applies to procured items manufactured or sold by NITTO KOHKI and to their manufacturing processes.

- (1) NITTO KOHKI brand products.
- (2) NITTO KOHKI products being sold or distributed with NITTO KOHKI logos on them, of which design and production are outsourced to third parties. (OEM* and ODM* supplied products)
- (3) Products of which design and production are outsourced to NITTO KOHKI by third parties (special order products, OEM and ODM products) excluding parts and materials to be specified by the third parties.
- (4) Procurement item necessary for NITTO KOHKI for production
 - ① Raw material
 - ② Parts (structural parts, electrical parts, packaging materials, packaging components, plated/painted parts, etc.)
 - ③ Semi-finished products (electrical motors, functional units, PC boards, etc.)
 - ④ Auxiliary materials to be used in products (adhesives, greases, oils, soldering materials, labels, adhesive tapes, etc.)
 - ⑤ Instruction manuals, cautions for use, etc.
 - ⑥ Packaging materials used for delivery and protection (wooden crates, trays, bags, buffer materials, sheets, wraps, cardboards, tapes, binding bands, labels, printing inks, paints, etc.)
- (5) Chemical substances used in manufacturing processes

8-4 Review of Green Procurement Standard

- (1) Information of revision
 - ① Green procurement standards will be revised one after another for the following reasons.
 - According to revisions of Japanese and/or foreign regulations
 - industry trends
 - Revision of correspondence to chemical substances of NITTO KOHKI
 - ② You will be informed of any revision by the contact person in charge of NITTO KOHKI. Please confirm and correspond to the informed revision.
- (2) Prior notification (Notification of prior information)
 - ① We may change part of the standard by issuing a change notification sheet when any deficiency is observed in the issued Green Procurement Standard.
 - ② Please confirm the contents of the change notification and correspond accordingly.
 - ③ The contents of the changed notification will be reflected in the Green Procurement Standard at the subsequent revision.

9. Definitions of terms

Confirm the attached Table EC-810-05-05 "The list of definition of terms"

Terms marked with " * " in the main text are mainly described.

Document No.NK-02 [List of chemical substances controlled by NITTO KOHKI]

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK |
|--|---|---|----------------------------|--|--|---|
| 1 | Cadmium / Cadmium Compounds CAS No. : See Table EC-810-05-02 | Pigment, anti-corrosion surface treatment (plating), electric and electronic materials (electrode, solder, electric contact), optical glass, stabilizer, fluorescent, stabilizer for PVC, battery, and packaging material | Level A | • 0.01wt% (100 ppm) of homogeneous materials in all uses (excluding batteries and packaging materials described below) *8: Metal conversion value is applied for the contained concentration. | • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • EU RoHS Directive (2011/65/EU) | Immediately |
| | | | | • 0.002wt%(20ppm) of battery (including battery pack) (0.001wt%(10ppm) for manganese, alkali and nickel-metal hydride) / (Nickel-cadmium is immediately prohibited) | EU Battery Directive 2006/66/EC | Immediately |
| | | | | • Intentional use For packaging material • 100 ppm is determined as the total-weight concentration of heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained as impurities in each part, ink, or paint that constitutes a package. | EU Packaging Directive (94/62/EEC) | Immediately |
| 2 | Lead / Lead Compounds CAS No. : See Table EC-810-05-02 | Rubber hardener, pigment, paint, lubricant, plastic stabilizer, free machining alloy, free cutting steels, optical materials, X-ray shielding in CRT glass, solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, plating, metal alloy, resin additive | Level A | • 0.1wt% (1,000 ppm) of homogeneous materials in all uses (excluding electric wires, cords, batteries and packaging materials described below) *8: Metal conversion value is applied for the contained concentration. | • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • EU RoHS Directive (2011/65/EU) | Immediately |
| | | | | • 0.03wt% (300 ppm) of surface coating of electric wires and cords | US/CA Proposition 65 Case law | Immediately |
| | | | | • 0.4wt%(4000ppm) of battery (including battery pack), (alkali-manganese battery 0.004wt%(40ppm)) (manganese battery and alkali-manganese button battery 0.1wt%(1000ppm)) | EU Battery Directive (2006/66/EC) | Immediately |
| | | | | • Intentional use for packaging material • 100 ppm is determined as the total-weight concentration of heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained as impurities in each part, ink, or paint that constitutes a package. | EU Packaging Directive (94/62/EEC) | Immediately |
| | | | Level B | 6a. Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0.35wt% lead by weight | • EU RoHS Directive (2011/65/EU) • 2018/739/EU | *7 under discussion |
| | | | | 6(a)-I. Lead as an alloying element in steel for machining purposes containing up to 0.1wt% lead by weight and in batch hot dip galvanised steel components containing up to 0.35wt % lead by weight | • EU RoHS Directive (2011/65/EU) • 2018/739/EU | |
| | | | | 6b. Lead as an alloying element in aluminium containing up to 0.4wt % lead by weight | • EU RoHS Directive (2011/65/EU) • 2018/740/EU | |
| | | | | 6(b)-I. Lead as an alloying element in aluminium containing up to 0.4wt % lead by weight, provided it stems from lead-bearing aluminium scrap recycling | • EU RoHS Directive (2011/65/EU) • 2018/740/EU | |
| | | | | 6(b)-II. Lead as an alloying element in aluminium for machining purposes with a lead content up to 0.4wt % by weight | • EU RoHS Directive (2011/65/EU) • 2018/740/EU | |
| | | | | 6c. Copper alloy containing up to 4wt% lead by weight | • EU RoHS Directive (2011/65/EU) • 2018/741/EU | |
| 7a. Lead in high-melting-temperature type solders (i.e. lead-based alloys containing 85wt% by weight or more lead) | • EU RoHS Directive (2011/65/EU) • 2018/742/EU | | | | | |
| 7(c)-I. Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound | • EU RoHS Directive (2011/65/EU) • 2018/736/EU | | | | | |
| 7(c)-II. Lead in dielectric ceramic in capacitors for a rated voltage of 125V AC or 250V DC or higher | • EU RoHS Directive (2011/65/EU) • 2019/169/EU | | | | | |

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK |
|-----|---|---|----------------------------|---|--|---|
| 2 | Lead / Lead Compounds CAS No. : See Table EC-810-05-02 | Rubber hardener, pigment, paint, lubricant, plastic stabilizer, free machining alloy, free cutting steels, optical materials, X-ray shielding in CRT glass, solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, plating, metal alloy, resin additive | Level B | 15(a). Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: —a semiconductor technology node of 90 nm or larger; —a single die of 300 mm ² or larger in any semiconductor technology node; —stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger. | • EU RoHS Directive (2011/65/EU) • 2018/737/EU • 2019/172/EU | *7 under discussion |
| | | | | 24. Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors | • EU RoHS Directive (2011/65/EU) • 2018/737/EU | |
| | | | Level A | 7(c)-IV. Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors : Lead content is up to 0.1 wt% | • EU RoHS Directive (2011/65/EU) • 2019/170/EU | Immediately |
| | | | | 9b. Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications : Lead content is up to 0.1 wt% | • EU RoHS Directive (2011/65/EU) • 2017/1010/EU | |
| 3 | Mercury / Mercury Compounds CAS No. : See Table EC-810-05-02 | Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, high-efficiency phosphor, antibacterial treatment | Level A | • Intentional use • 0.1wt% (1,000 ppm) of homogeneous materials as impurities in all uses (excluding batteries and packaging materials described below) *8: Metal conversion value is applied for the contained concentration. | • EU REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • EU RoHS Directive (2011/65/EU) | Immediately |
| | | Silver-oxide button cells, alkaline batteries, zinc carbon batteries | | • 0.0005 wt%(5ppm) of homogeneous material in battery (Intentional addition into button battery / 0.0005 wt% as impurity) • Intentional addition to manganese battery · alkaline battery (As an impurity, 0.0001 wt% in the battery or 0.0005 wt%(5ppm) in the homogeneous material) • 0.0001 wt% in nickel-metal hydride battery (including battery pack) or 0.0005 wt%(5ppm) in homogeneous material | EU Battery Directive (2006/66/EC) | Immediately |
| | | Packaging materials | | • Intentional use for packaging material • 100 ppm is determined as the total-weight concentration of heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained as impurities in each part, ink, or paint that constitutes a package | EU Packaging Directive (94/62/EEC) | Immediately |
| 4 | Hexavalent Chromium Compounds CAS No. : See Table EC-810-05-02 | Pigment, paint, ink, catalyst, plating, anti-corrosion surface treatment, dye | Level A | • 0.1wt% (1,000 ppm) of homogeneous materials in all uses (excluding batteries and packaging materials described below) *8: Metal conversion value is applied for the contained concentration. | • EU REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • EU RoHS Directive (2011/65/EU) | Immediately (For leather, 3ppm is added in Annex17) |
| | | Packaging materials | | • Intentional use for packaging material • 100 ppm is determined as the total-weight concentration of heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained as impurities in each part, ink, or paint that constitutes a package | EU Packaging Directive (94/62/EEC) | Immediately |
| | | Pigment, paint, ink, catalyst, plating, anti-corrosion surface treatment, dye | | • Intentional use | • US/TSCA Toxic Substances Control Act | Immediately |
| 5 | Polychlorinated Biphenyls (PCBs) and specific substitutes CAS No. : See Table EC-810-05-02 | Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; plasticizers, fire retardants, flame retardants, dielectric sealants, instruments containing mixture (condenser, etc.) | Level A | • Intentional use • 0.005 wt%(50ppm) in homogeneous material as impurities | • Japan/Chemical Substance Control Law (Class 1 Specified Chemical Substances), commercial manufacturing/ process / distribution and use prohibition regulation • EU REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • EU/POPs Regulation (EU) No 2019/1021 | Immediately |
| | | | | • Intentional use | • US/TSCA Toxic Substances Control Act | Immediately |

Table EC-810-05-01

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK |
|-----|--|--|----------------------------|---|--|---|
| 6 | Polychlorinated Terphenyls (PCTs) CAS No. : See Table EC-810-05-02 | Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; plasticizers, fire retardants, flame retardants, coating agent for electric wire and cable, dielectric sealants, instruments containing mixture (condenser, etc.) | Level A | • 0.005wt% (50 ppm) of homogeneous material | EU REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately |
| 7 | Polychlorinated naphthalenes (more than 3chlorine atoms) (PCNs) CAS No. : See Table EC-810-05-02 | Lubricant, paint, stabilizer (electric characteristic, flame-resistant) insulator, flame retardant | Level A | • Intentional use | • Japan Law concerning the evaluation of chemical substances • EU/POPs Regulation (EU) No 2019/1021 | Immediately |
| 8 | Short Chain Chlorinated Paraffins (SCCPs) (C10 - 13) CAS No. : Refer to the Attached table EC-810-05-02 (Refer to 11 Chlorinated Flame Retardants for middle and long chain chlorinated paraffins) | Plasticizer for PVC, flame retardant, mixture such as grease and metal machining oil | Level A | • Intentional use • 0.1wt% (1,000 ppm) in homogeneous material as impurities | • EU REACH Regulation (EC) No 1907/2006 (list of SVHC) • EU/POPs Regulation (EU) No 2019/1021 • Norway Regulation of use of specified toxic substance | Immediately |
| 9 | Polyvinyl chloride (PVC) & PVC Copolymers CAS No. : See Table EC-810-05-02 | Plastic, insulator, film, power cords, CUPLA's dust cap, and packaging material | Level A | • Intentional use in packaging material | EU Packaging Directive (94/62/EEC) | Immediately |
| | | | Level C | • 0.1wt% (1,000 ppm) of total of contained chloride in plastic material • Refer to 11 Chlorinated Flame Retardants for laminated printed board | USA/JS709 (Industry definition: Defining Low-Halogen) | |
| | | | Excluded from application | • Added binding agent (binder) for resin used in paint, ink, coating agent, adhesive, etc. | | |
| 10 | Tris(2-chloroethyl)phosphate (TCEP) CAS No. : 115-96-8 | Plastic, fiber, flame retardants for cloth material, and packaging material | Level A | • 0.1wt% (1,000 ppm) of parts | EU REACH Regulation (EC) No 1907/2006 Annex14(Authorized substances) | Immediately |
| 11 | Chlorinated flame retardants CAS No. : See Table EC-810-05-02 | Flame retardant for housing, connectors, package molding sealing and laminated printed board | Level C | • 0.1wt%(1,000 ppm) total chlorine content in the plastic material | USA/JS709 (Industry definition: Defining Low-Halogen) | |
| | | | | • 0.09wt%(900 ppm) total bromine content in the laminate | IPC-4101(Specification for Base Materials for Rigid and Multilayer Printed Boards) and IEC61249-2-21 (International Electrotechnical Commission) | |
| 12 | Perchlorates CAS No. : See Table EC-810-05-02 | Coin cell batteries | Level C | • 0.000006wt% (0.006 ppm) of the product | USA/California-Perchlorate Contamination Prevention Act of 2003 | |
| 13 | Polybrominated Biphenyls (PBBs) CAS No. : See Table EC-810-05-02 | Flame retardant | Level A | • Intentional use to fiber products that touch human skin | EU REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately |
| | | | | • 0.1wt% (1,000 ppm) of homogeneous materials in all uses other than described above | EU/RoHS Directive (2011/65/EU) | |
| 14 | Polybrominated Diphenylethers (PBDEs) CAS No. : See Table EC-810-05-02 | Flame retardant | Level A | • Intentional use • 0.1wt% (1,000 ppm) in homogeneous material as impurities | • Japan/Chemical Substance Control Law • EU/RoHS Directive (2011/65/EU) | Immediately |
| | Decabromodiphenyl ether (DBDPE) CAS No. : 1163-19-5 | | | • Intentional use | • Japan/Chemical Substance Control Law • EU/RoHS Directive (2011/65/EU) • EU/POPs Regulation (EU) No 2019/1021 • US/TSCA Toxic Substances Control Act | Immediately |
| 15 | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified CAS No. : See Table EC-810-05-02 | Flame retardant mainly used for expanded polystyrene and some types of fiber | Level A | • Intentional use • 0.1 wt% (1000 ppm) contained in the parts as impurities | • Japan/Chemical Substance Control Law • REACH Regulation (EC) No 1907/2006 Annex 14 (Authorised substance) • EU/POPs Regulation (EU) No 2019/1021 | Immediately |

Table EC-810-05-01

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK | |
|-----|--|--|----------------------------|---|--|---|----------------|
| 16 | Brominated flame retardants (other than PBBs, PBDEs, or HBCDD) CAS No. : See Table EC-810-05-02 | Flame retardant for housing, connectors, package molding sealing. | Level C | • 0.1wt% (1,000 ppm) of plastic material | USA/JS709 (Industry definition: Defining Low-Halogen) | | |
| | | | | • 0.09wt% total bromine content (900 ppm) in the laminate | IPC-4101 and IEC 61249-2-21 | | |
| 17 | Tri-substituted organostannic compounds [including TBT and TPT] CAS No. : See Table EC-810-05-02 | Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, mildew-proofing agents, paint, pigment, antistainings | Level A | • Intentional use • 0.1wt% (1,000 ppm) of homogeneous materials as impurities *8: Metal conversion value is applied for the contained concentration. | • Japan/Chemical Substance Control Law • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances)(Commission Regulation (EU) No.276 / 2010) | Immediately | |
| | | | | Exemption | • Metal tin, tin alloys, tin plating and tin inorganic compounds | | |
| 18 | Dibutyltin (DBT) compounds CAS No. : See Table EC-810-05-02 | Stabilizer for PVC, curing catalyst for silicone resin and urethane resin | Level A | • 0.1wt% (1,000 ppm) of tin in homogeneous materials *8: Metal conversion value is applied for the contained concentration. | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) (Commission Regulation (EU) No.276/2010) | Immediately | |
| | | | | Exemption | • Metal tin, tin alloys, tin plating and tin inorganic compounds | | |
| 19 | Diocetyl tin (DOT) compounds CAS No. : See Table EC-810-05-02 | Stabilizer for PVC, curing catalyst for silicone resin and urethane resin | Level A | [1] Textiles and leather products intended to touch human skin, [2] nursery item, [3] 2 component room temperature vulcanized molding kit • 0.1wt% (1,000 ppm) of tin in homogeneous materials *8: Metal conversion value is applied for the contained concentration. | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) (Commission Regulation (EU) No.276/2010) | Immediately | |
| | | | | Level C | • 0.1wt% (1,000 ppm) of parts of tin in homogeneous materials except for the above . *8: Metal conversion value is applied for the contained concentration. | | IEC62474/GADSL |
| | | | | Exemption | • Metal tin, tin alloys, tin plating and tin inorganic compounds | | |
| 20 | Asbestos CAS No. : See Table EC-810-05-02 | Brake lining pad, insulator, filler, abrasive, pigment, paint, talc, adiabatic material | Level A | • Intentional use | • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • Japan/Industrial Safety and Health Law (substance prohibited to be manufactured) • US/TSCA Toxic Substances Control Act | Immediately | |
| 21 | Azocolorants and azodyes which form certain aromatic amines CAS No. : See Table EC810-05-02 | Pigment, dyes, colorants | Level A | • 0.003wt% (30 ppm) of the finished textile/leather product | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately | |
| | | | | Exemption | • Use for other than textile products, leather products or parts that could come in contact with human skin (or mouth) directly and for a long period of time | | |
| 22 | Formaldehyde CAS No. : 50-00-0 | Textile product, Wood product (plywood, particle board, MDF) | Level A | • 75 ppm or less in textile product | Austria-BGB I 1990/194; Formaldehydverordnung, §2, 12/2/1990 | Immediately | |
| | | | | • Intentional use in wood product | US/California CARB Regulation | Immediately | |
| 23 | Specific benzotriazole [Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl) 1] CAS No. : 3846-71-7 | Adhesive, paints, printing ink, plastics, inked ribbons, putty, caulking or sealing fillers, ultraviolet protectants and ultraviolet absorbers | Level A | • Intentional use | Japan/Chemical Substance Control Law • REACH Regulation (EC) No 1907/2006 Annex 14 (Authorised substance) | Immediately | |
| 24 | Dimethyl fumarate 1 (DMF) CAS No. : 624-49-7 | Moisture prevention agents, mildew-proofing agents | Level A | • 0.00001wt% (0.1 ppm) of the product | • REACH Regulation (EC) No 1907/2006 Commission Decision 2009/251/EC • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately | |
| 25 | Beryllium oxide (BeO) CAS No. : 1304-56-9 | Ceramics | Level C | • 0.1wt% (1,000 ppm) of parts | DIGITALEUROPE /CECED / AeA / EERA guidance | | |

Table EC-810-05-01

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK |
|-----|--|---|---|---|--|---|
| 26 | Cobalt dichloride(II) (CoCl ₂) CAS No. : 7646-79-9 | Coloring agents, surface treatment agents, process control agents, reducing agents (metalworking industry, rubber industry) | Level A | • Intentional use in moisture indicator used for a desiccant agent (e.g., silica gel) | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately |
| | | | Level C | • 0.1wt% (1,000 ppm) of parts | REACH Regulation (EC)N0 1907/2006(SVHC list) | |
| 27 | Diarsenic pentoxide CAS No. : 1303-28-2 | Additive in wood, metal, glass and plastics | Level A | • 0.1wt% (1,000 ppm) of parts | REACH Regulation (EC)N0 1907/2006(SVHC list) Annex14/Authorized substances | Immediately |
| 28 | Diarsenic trioxide CAS No. : 1327-53-3 | Additive in wood, metal, glass and plastics | Level A | • 0.1wt% (1,000 ppm) of parts | REACH Regulation (EC)N0 1907/2006(SVHC list) Annex14/Authorized substances | Immediately |
| 29 | Phthalic acid ester Bis (2-ethylhexyl)phthalate (DEHP) CAS No. : 117-81-7 Dibutyl phthalate (DBP) CAS No. : 84-74-2 Butyl bezy phthalate (BBP) CAS No. : 85-68-7 Diisobutyl phthalate (DIBP) CAS No. : 84-69-5 | Material used for plasticizer of plastic and rubber, dye, pigment, paint, ink, adhesive, and external/internal covering material | Level A | • All uses other than Level C • 0.1wt% (1,000 ppm) of homogeneous materials | • REACH Regulation (EC)N0 1907/2006 Annex14/Authorized substances • RoHS Directive(2015/863/EU) | Immediately |
| | | | Level A | • 0.1wt% (1,000 ppm) of homogeneous materials | • REACH Regulation (EC) No 1907/2006 Annex14/Authorized substances • USA/Consumer Product Safety improvement Act of 2008 (PUBLIC LAW 110-314) | Immediately |
| | | | Level B | • 0.1wt% (1,000 ppm) of homogeneous materials | • REACH Regulation (EC) No 1907/2006 Annex14/Authorized substances | February 27th, 2022 |
| | | | Level C | • Intentional use in subject products that may be touched, collect in or be inhaled (sucked) by human body such as fine particles of grip and expendable parts. | US/California Proposition 65 case law) DIDP.DnHP | |
| 33 | 1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear CAS No. : 84777-06-0 | Material used for plasticizer of plastic and rubber, dye, pigment, paint, ink, adhesive, and external/internal covering material | Level A | • 0.1wt% (1,000 ppm) of homogeneous materials | • REACH Regulation (EC) No 1907/2006 Annex14/Authorized substances • USA/Consumer Product Safety improvement Act of 2008 (PUBLIC LAW 110-314) | Immediately |
| | Level B | | • 0.1wt% (1,000 ppm) of homogeneous materials | • REACH Regulation (EC) No 1907/2006 Annex14/Authorized substances | February 27th, 2022 | |
| | Level C | | • Intentional use in subject products that may be touched, collect in or be inhaled (sucked) by human body such as fine particles of grip and expendable parts. | US/California Proposition 65 case law) DIDP.DnHP | | |
| 34 | Fluorinated greenhouse gases (PFC, SF ₆ , HFC) CAS No. : See Table EC-810-05-02 | Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas | Level A | • Intentional use | EU/EU Regulation (EC) No. 512/2014 | Immediately |
| | | | Level A | • Intentional use | • Securing implementation of Montreal Protocol • Japan/Ozone Layer Protection Law • EU/EU Regulation (EC) No. 2037/2000 • U.S. A Clean Air Act | Immediately |
| 35 | Ozone depleting substances CAS No. : See Table EC-810-05-02 | Refrigerant, foaming agent, extinguishant, solvent cleaner | Level A | • Intentional use | • Securing implementation of Montreal Protocol • Japan/Ozone Layer Protection Law • EU/EU Regulation (EC) No. 2037/2000 • U.S. A Clean Air Act | Immediately |
| | | | Level A | • Intentional use • 0.1wt% (1,000 ppm) of homogeneous materials contained as impurities | • EU/POPs Regulation (EU) No 2019/1021 • Japan/Chemical Substance Control Law • Canadian Environmental Protection Act (SOR/2008-178) | Immediately |
| 36 | Perfluorooctane sulfonate (PFOS) CAS No. : See Table EC-810-05-02 | Hydraulic oil, Water repellent agent, oil repellent agent, surface treatment agents for plating, etching agent, and photographic film | Level A | • Intentional use • 0.1wt% (1,000 ppm) of homogeneous materials contained as impurities | • EU/POPs Regulation (EU) No 2019/1021 • Japan/Chemical Substance Control Law • Canadian Environmental Protection Act (SOR/2008-178) | Immediately |
| | | | Level A | • Intentional use • 0.1wt% (1,000 ppm) of parts contained as impurities | • Japan/Chemical Substance Control Law • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • REACH Regulation (EC)N0 1907/2006(SVHC list) | Immediately |
| 37 | Tributyl tin oxide (TBTO) CAS No. : 56-35-9 | Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner | Level A | • Intentional use • 0.1wt% (1,000 ppm) of parts contained as impurities | • Japan/Chemical Substance Control Law • REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) • REACH Regulation (EC)N0 1907/2006(SVHC list) | Immediately |
| | | | Level A | • Intentional addition to parts touched on human skin for a long time | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately (Conditional) |
| 38 | Nickel CAS No. : 7440-02-0 | Nickel plating, alloy (SUS, etc.) | Level A | • Intentional addition to parts touched on human skin for a long time | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately (Conditional) |
| | | | Level C | • Intentional use | Japan Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 | |
| 39 | Radioactive substances CAS No. : See Table EC-810-05-02 | Optical properties (thorium), measuring devices, gauges, detector | Level C | • Intentional use | Japan Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 | |

Table EC-810-05-01

| No. | Substances | General purpose & use example | Standard of classification | Prohibited Criteria (Limited use/ Exclusion use/ Threshold level) | Laws and Regulations / Industry Criteria | The deadline for prohibiting delivery to NK |
|-----|--|--|----------------------------|---|---|---|
| 40 | Polycyclic aromatic hydrocarbon (PAH) CAS No. : See Table EC-810-05-02 | Color pigment of rubber, plastisizer and plastic Adhesives, paints | Level A | <ul style="list-style-type: none"> •Rubber or plastic part that will for an extended period of time or repeatedly in a short time touch directly the human skin or an oral cavity (grip, handle, etc.) • 0.0001wt% (1 ppm) of material | REACH Regulation (EC) No 1907/2006 Annex 17 (Limited substances) | Immediately |
| | | | Level C | <ul style="list-style-type: none"> • 0.1wt% (1,000 ppm) of parts | REACH Regulation (EC) No 1907/2006 (SVHC) | |
| 41 | Perfluorooctanoic acid (PFOA), its salt and ester CAS No. : See Table EC-810-05-02 | Coating agent for paper, metal plating, hydraulic oil, stabilizer for plastic, and adhesive in semiconductor | Level A | <ul style="list-style-type: none"> a) Components of other substances b) mixture c) molded article • PFOA and its salt: 0.025ppm (25ppb) • PFOA-related substances (total): 1ppm (1000ppb) • PFOA and its salt (If they are present in polytetrafluoroethylene (PTFE) micropowders produced by ionising irradiation of up to 400 kilograys or by thermal degradation as well as in mixtures and articles for industrial and professional uses containing PTFE micropowders.) :1ppm (1000ppb) | <ul style="list-style-type: none"> •REACH Regulation (EC) No 1907/2006 (SVHC) Annex 17 (Limited substances) •EU/POPs Regulation (EU) No 2019/1021 | Immediately |
| 42 | Benzenamine,N-plenyl-,reaction Products with styrene and 2,4,4-trimethylpenten(BNST) CAS No. : See Table EC-810-05-02 | Additive in rubber Additive in lubricant(e.g.vehicle engine oils,commercial and industrial lubricants) | Level A | <ul style="list-style-type: none"> • Intentional use | Canada 2012(SOR/212-282) | Immediately |
| | | | Exemption | <ul style="list-style-type: none"> • Additive in rubber | | |
| 43 | Phenol, isopropylated phosphate (3:1) CAS No. : 68937-41-7 | Plasticizer and flame retardant for PVC | Level B | Prohibition of inclusion in products and Articles. | <ul style="list-style-type: none"> • US/TSCA Toxic Substances Control Act | September 4th, 2021 |
| 44 | Pentachlorothiophenol CAS No. : 133-49-3 | Natural rubber paste | Level A | Prohibition of inclusion of PCTP exceeding 1% by weight in products and Articles. | <ul style="list-style-type: none"> • US/TSCA Toxic Substances Control Act | Immediately |

Note

- 1 Chemical substances specified in class 1 of the Chemical Substances Control Law, chemical substances prohibited to be manufactured by the industrial safety and health law, the Law Concerning the Protection of the Ozone Layer through the control of specified substances and other measures and Poisonous and Deleterious Substances Control Act are listed in table EC-810-05-04, "List of environmental management substances shall be prohibited by Japanese laws and regulations" and these substances are prohibited substance of level A.
- 2 * The item described before the Cas No. is a substance already publicized as an authorized substance and publicized again as REACH Regulation (SVHC).
- 3 Although REACH Regulation, etc. are taken into consideration for the time limit of delivery in the remarks column, the time limit may change due to the trends of laws and regulations as well as social trends in the future. Please have an alternative before the time limit of prohibition of delivery.
- 4 No. 30, No. 31 and No. 32 are vacant since they are compiled in No. 29 Phthalic acid ester.
- 5 When "limited / prohibition criteria / threshold level" is described, in scope when applicable to either of the descriptions.
- 6 Exemption items related to NITTO KOHKI only are shown. For other items, refer to the Official Journal of the European Union(2010/571/EU)
- 7 The date in "The deadline for prohibiting delivery to NK" column described as " *7 under discussion " will be reviewed as soon as the result of discussion about the exemption deadline by the European Parliament and of the Council. If the application for postponement of the deadline is rejected, the threshold of "Prohibited Criteria" will be "0.1wt%".
- 8 Whether the contained concentration meets the "Prohibited Criteria" is judged by using the metal conversion value, but please enter the contained concentration before metal conversion (compound itself) in the composition information of chemSHERPA-AI.

List of a typical example of chemical substances.

1. Cadmium / Cadmium compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|--|-------------------------|-------------|
| 1) | Cadmium | 1.000 | 7440-43-9 |
| 2) | Cadmium oxide | 0.875 | 1306-19-0 |
| 3) | Cadmium sulfide | 0.778 | 1306-23-6 |
| 4) | Cadmium chloride | 0.613 | 10108-64-2 |
| 5) | Cadmium sulfate | 0.538 | 10124-36-4 |
| 6) | Cadmium sulfate | - | 31119-53-6 |
| 7) | Cadmium fluoride(CdF ₂) | 0.747 | 7790-79-6 |
| 8) | Cadmium nitrate | - | 10325-94-7 |
| 9) | Cadmium carbonate | - | 513-78-0 |
| 10) | Cadmium selenide sulfide (Cd ₂ SeS) | - | 12214-12-9 |
| 11) | Cadmium selenide (CdSe) | - | 1306-24-7 |
| 12) | Cadmium telluride (CdTe) | - | 1306-25-8 |
| 13) | Cadmium hydroxide (Cd(OH) ₂) | - | 21041-95-2 |
| 14) | Cadmium distearate; Cadmium stearate | - | 2223-93-0 |
| 99) | Other cadmium compounds | - | JAMP-SN0016 |

Note: "JAMP-SNxxxx" JAMP Substance Numbers have been introduced as a measure to resolve this issue for substances that do not have a CAS No.

(Refer the Table EC-810-05-05 "The list of definition of terms".)

2. Lead / Lead compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|------------|
| 1) | Lead | 1.000 | 7439-92-1 |
| 2) | Lead (II) sulfate | 0.683 | 7446-14-2 |
| 3) | Lead (II) carbonate | 0.775 | 598-63-0 |
| 4) | Lead (II) chromate | 0.641 | 7758-97-6 |
| 5) | C.I.Pigment Red 104 (Lead chromate molybdate sulphate red) | - | 12656-85-8 |
| 6) | Lead hydroxidcarbonate | 0.801 | 1319-46-6 |
| 7) | Lead acetate | 0.637 | 301-04-2 |
| 8) | Lead(II) acetate,tryhydrate | 0.546 | 6080-56-4 |
| 9) | Dilead Pyrophosphate | 0.766 | 13453-66-2 |
| 10) | Lead selenide | 0.724 | 12069-00-0 |
| 11) | Lead (IV) oxide | 0.866 | 1309-60-0 |
| 12) | Lead (II , IV) oxide | 0.907 | 1314-41-6 |
| 13) | Lead (II) sulfide | 0.866 | 1314-87-0 |
| 14) | Lead (II) oxide | 0.928 | 1317-36-8 |
| 15) | Lead hydroxidcarbonate | 0.801 | 1344-36-1 |
| 16) | Trilead bis (Orthophosphate) | 0.766 | 7446-27-7 |
| 17) | C.I.Pigment Yellow 34 (Lead sulfochromate yellow) | - | 1344-37-2 |
| 18) | Lead (II) titanate | 0.686 | 12060-00-3 |
| 19) | Lead zirconate | - | 12060-01-4 |
| 20) | Hydroxylead | - | 1311-11-1 |
| 21) | Lead(II) hydroxide; Lead hydroxide | - | 19783-14-3 |
| 22) | Lead sulfate,sulphuric acid,lead salt | 1.000 | 15739-80-7 |
| 23) | Lead sulphate,tribasic | 0.850 | 12202-17-4 |

2. Lead / Lead compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|-------------|
| 24) | Lead stearate | 0.268 | 1072-35-1 |
| 25) | Dibasic lead stearate | - | 56189-09-4 |
| 26) | Zinc chromate | - | 13530-65-9 |
| 27) | Pentazine chromate octahydroxide | - | 49663-84-5 |
| 28) | Zinc potassium chromate, potassium hydroxyoctaoxodi zincatedi-chromate | - | 11103-86-9 |
| 29) | Lead dinitrate | 0.626 | 10099-74-8 |
| 30) | Silicic acid, lead salt | - | 11120-22-2 |
| 31) | Lead oxide sulfate | - | 12036-76-9 |
| 32) | Pentalead tetraoxide sulphate | - | 12065-90-6 |
| 33) | Trilead dioxide phosphonate | - | 12141-20-7 |
| 34) | Dioxobis(stearato)trilead | - | 12578-12-0 |
| 35) | Lead titanium zirconium oxide | - | 12626-81-2 |
| 36) | Lead diazide, Lead azide | - | 13424-46-9 |
| 37) | Lead bis(tetrafluoroborate) | - | 13814-96-5 |
| 38) | Lead styphnate | - | 15245-44-0 |
| 39) | Lead(II) bis(methanesulfonate) | - | 17570-76-2 |
| 40) | Lead cyanamidate | - | 20837-86-9 |
| 41) | Trilead diarsenate | - | 3687-31-8 |
| 42) | Acetic acid, lead salt, basic | - | 51404-69-4 |
| 43) | Sulfurous acid, lead salt, dibasic | - | 62229-08-7 |
| 44) | Lead dipicrate | - | 6477-64-1 |
| 45) | Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008] | - | 68784-75-8 |
| 46) | [Phthalato(2-)]dioxotrilead (dibasic lead phthalate) | - | 69011-06-9 |
| 47) | Lead hydrogen arsenate | - | 7784-40-9 |
| 48) | Tetraethyllead | 0.640 | 78-00-2 |
| 49) | Pyrochlore, antimony lead yellow | - | 8012-00-8 |
| 50) | Fatty acids, C16-18, lead salts | - | 91031-62-8 |
| 99) | Other lead compounds | - | JAMP-SN0023 |

3. Mercury / Mercury compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|------------|
| 1) | Mercury | 1.000 | 7439-97-6 |
| 2) | Mercuric chloride | - | 33631-63-9 |
| 3) | Mercury (II) chloride | 0.739 | 7487-94-7 |
| 4) | Mercuric sulfate | 0.676 | 7783-35-9 |
| 5) | Mercury(I) oxide (black); Mercurous oxide | - | 15829-53-5 |
| 6) | Dimethylmercury | - | 593-74-8 |
| 7) | Dimercury dichloride; Mercury chloride | - | 10112-91-1 |
| 8) | Mercuric nitrate | 0.618 | 10045-94-0 |
| 9) | Mercuric (II) oxide | 0.926 | 21908-53-2 |
| 10) | Mercuric sulfide | 0.862 | 1344-48-5 |
| 11) | (2-ethylhexanoato)phenylmercury; Mercury, (2-ethylhexanoato)phenylmercury | - | 13302-00-6 |
| 12) | phenylmercury octanoate | - | 13864-38-5 |

3. Mercury / Mercury compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|-------------|
| 13) | Phenylmercury acetate | – | 62-38-4 |
| 14) | (neodecanoato-O)phenylmercury;Mercury,(neodecanoato-O)phenylmercury | – | 26545-49-3 |
| 15) | Phenylmercury propionate;Mercury,phenyl(propanoato-O)mercury | – | 103-27-5 |
| 99) | Other mercury compounds | – | JAMP-SN0024 |

4. Hexavalent chromium compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|-------------|
| 1) | Chromium (VI) oxide | 0.520 | 1333-82-0 |
| 2) | Barium chromate | 0.205 | 10294-40-3 |
| 3) | Calcium chromate | 0.333 | 13765-19-0 |
| 4) | Lead (II) chromate | 0.161 | 7758-97-6 |
| 5) | C.I.Pigment Red 104 (Lead chromate molybdate sulphate red) | – | 12656-85-8 |
| 6) | C.I.Pigment Yellow 34 (Lead sulfochromate yellow) | – | 1344-37-2 |
| 7) | Sodium chromate | 0.321 | 7775-11-3 |
| 8) | Sodium dichromate | 0.397 | 10588-01-9 |
| 9) | Strontium chromate | 0.255 | 7789-06-2 |
| 10) | Potassium dichromate | 0.353 | 7778-50-9 |
| 11) | Potassium chromate | 0.268 | 7789-00-6 |
| 12) | Zinc chromate | 0.287 | 13530-65-9 |
| 13) | Sodium dichromate dihydrate | – | 7789-12-0 |
| 14) | Pentazinc chromate octahydroxide | 0.090 | 49663-84-5 |
| 15) | Zinc Potassium chromate | 0.250 | 11103-86-9 |
| 16) | Ammonium dichromate; Ammonium bichromate | – | 7789-09-5 |
| 17) | Acids generated from chromium trioxide and their oligomers | – | – |
| 18) | Chromic acid | – | 7738-94-5 |
| 19) | Dichromic acid | 0.477 | 13530-68-2 |
| 20) | Other hexavalent chromium compounds | – | – |
| 21) | Dichromium tris(chromate) | – | 24613-89-6 |
| 22) | C.I. Pigment Orange 21 | – | 1344-38-3 |
| 99) | Other hexavalent chromium compounds | – | JAMP-SN0019 |

5. Polychlorinated biphenyls (PCBs) and specific substitutes (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---|---|------------|
| 1) | Polychlorinated biphenyls (PCB) | – | 1336-36-3 |
| 2) | Monomethyl-tetrachloro-diphenyl methane (Ugilec141) | – | 76253-60-6 |
| 3) | Monomethyl-dichloro-diphenyl methane (Ugilec121,Ugilec21) | – | 81161-70-8 |
| 4) | Monomethyl-dibromo-diphenyl methane (DBBT) | – | 99688-47-8 |

6. Polychlorinated terphenyls (PCTs)

| No. | Substance Name | – | CAS No. |
|-----|----------------------------------|---|------------|
| 1) | Polychlorinated Terphenyls (PCT) | – | 61788-33-8 |

7. Polychlorinated naphthalenes (PCN) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|--|---|-------------------------|
| 1) | Polychlorinated Naphthalenes (Cl \geq 2) | – | 70776-03-3 1321-65-9 |
| | Dichloronaphtalenes(PCN);(Cl=2) | – | 28699-88-9 |
| | 1,2-Dichloronaphtaiene | – | 2050-69-3 |
| | 1,3-Dichloronaphtaiene | – | 2198-75-6 |
| | 1,4-Dichloronaphtaiene | – | 1825-31-6 |
| | 1,5-Dichloronaphtaiene | – | 1825-30-5 |
| | 1,6-Dichloronaphtaiene | – | 2050-72-8 |
| | 1,7-Dichloronaphtaiene | – | 2050-73-9 |
| | 1,8-Dichloronaphtaiene | – | 2050-74-0 |
| | 2,3-Dichloronaphtaiene | – | 2050-75-1 |
| | 2,6-Dichloronaphtaiene | – | 2065-70-5 |
| | 2,7-Dichloronaphtaiene | – | 2198-77-8 |
| 99) | Other polychlorinated Naphthalenes | – | – |

8. Short chain chlorinated paraffins (SCCPs) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---|---|-------------|
| 1) | Alkanes,C10-C13,chloro | – | 85535-84-8 |
| 2) | Alkanes,C10-C12,chloro | – | 108171-26-2 |
| 3) | Alkanes,C12-C13,chloro | – | 71011-12-6 |
| 4) | Alkanes,chloro | – | 61788-76-9 |
| 99) | Other Short Chain Chlorinated Paraffins | – | – |

9. (PVC) Polyvinyl chloride & PVC Copolymers (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---------------------------|---|-----------|
| 1) | Polivinyll chloride (PCV) | – | 9002-86-2 |
| 2) | PVC Copolymers | – | – |
| 99) | Other Polyvinyl chlorides | – | – |

11. Chlorinated Flame Retaedants (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---|---|------------|
| 1) | Tetrakis (2-chloroethyl) dichloroisopentyldiphosphate | – | 38051-10-4 |
| 2) | Tris (1-chloro-2-propyl) phosphate | – | 13674-84-5 |
| 3) | Tris (2,3-dichloro-1-propyl) phosphate | – | 66108-37-0 |
| 99) | Other Chlorinated Flame Retardants | – | – |

12. Perchlorate compounds (Groups)

| No. | Substance Name | – | CAS No. |
|-----|-----------------------------|---|-----------|
| 1) | Lithium perchlorate | – | 7791-03-9 |
| 99) | Other perchlorate compounds | – | – |

13. Polybrominated biphenyls (PBBs) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|--|---|------------|
| 1) | Polybrominated biphenyls | – | 59536-65-1 |
| 2) | Dibromobiphenyl | – | 92-86-4 |
| 3) | 2-Bromobiphenyl | – | 2052-07-5 |
| 4) | 3-Bromobiphenyl | – | 2113-57-7 |
| 5) | 4-Bromobiphenyl | – | 92-66-0 |
| 6) | Tribromobiphenyl | – | 59080-34-1 |
| 7) | Tetrabromobiphenyl | – | 40088-45-7 |
| 8) | Pentabromobiphenyl | – | 56307-79-0 |
| 9) | Hexabromobiphenyl | – | 59080-40-9 |
| 10) | Hexabromo-1,1-biphenyl | – | 36355-01-8 |
| 11) | Firemaster FF-1 | – | 67774-32-7 |
| 12) | Heptabromobiphenyl | – | 35194-78-6 |
| 13) | Octabromobiphenyl | – | 61288-13-9 |
| 14) | Nonabiphenyl | – | 27753-52-2 |
| 15) | Decabromobiphenyl | – | 13654-09-6 |
| 16) | 1,1'-Biphenyl,3,3',4,4-tetrabromo- | – | 77102-82-0 |
| 17) | 1,1'-Biphenyl1,2,2',4,5,5'-pentabromo- | – | 67888-96-4 |

14. Polybrominated diphenylethers (PBDEs) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|--|---|------------|
| 1) | Bromodiphenyl ether | – | 101-55-3 |
| 2) | Dibromodiphenyl ethers | – | 2050-47-7 |
| 3) | Tribromodiphenyl ether | – | 49690-94-0 |
| 4) | Terabromodiphenyl ethers | – | 40088-47-9 |
| 5) | pentabromodiphenyl ether (note: Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.) | – | 32534-81-9 |
| 6) | Hexabromodiphenyl ether | – | 36483-60-0 |
| 7) | Heptabromodiphenyl ether | – | 68928-80-3 |
| 8) | Octabromodiphenyl ether | – | 32536-52-0 |
| 9) | Nonabromodiphenyl ether | – | 63936-56-1 |
| 10) | Decabromodiphenyl ether | – | 1163-19-5 |

15. Hexabromocyclododecane (HBCDD) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|----------------------------------|---|-------------|
| 1) | Hexabromocyclododecane (HBCDD) | – | 25637-99-4 |
| | | | 4736-49-6 |
| | | | 65701-47-5 |
| | | | 138257-17-7 |
| | | | 138257-18-8 |
| | | | 138257-19-9 |
| | | | 169102-57-2 |
| | | | 678970-15-5 |
| | | | 678970-16-6 |
| | | | 678970-17-7 |
| | | | 3194-55-6 |
| 2) | α -hexabromocyclododecane | – | 134237-50-6 |
| 3) | β -hexabromocyclododecane | – | 134237-51-7 |
| 4) | γ -hexabromocyclododecane | – | 134237-52-8 |

16. Brominated flame retardants (other than PBBs, PBDEs or HBCDD) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|--|---|-------------|
| 1) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(14) [Aliphatic/alicyclic brominated compounds] | – | – |
| 2) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(15) [Aliphatic/alicyclic brominated compounds in combination with antimony compounds] | – | – |
| 3) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(16) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls] | – | – |
| 4) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(17) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls] in combination with antimony compounds] | – | – |
| 5) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(22) [Aliphatic/alicyclic chlorinated and brominated compounds] | – | – |
| 6) | Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(42) [Brominated organic phosphorus compounds] | – | – |
| 7) | Poly(2,6-dibromo-phenylene oxide) | – | 69882-11-7 |
| 8) | Tetra-decabromo-diphenoxy-benzene | – | 58965-66-5 |
| 9) | 1,2-Bis(2,4,6-tribromo-phenoxy) ethane | – | 37853-59-1 |
| 10) | 3,5,3',5'-Tetrabromo-bisphenol A (TBBA) | – | 79-94-7 |
| 11) | TBBA, unspecified | – | 30496-13-0 |
| 12) | TBBA-epichlorhydrin oligomer | – | 40039-93-8 |
| 13) | TBBA-TBBA-diglycidyl-ether oligomer | – | 70682-74-5 |
| 14) | TBBA carbonate oligomer | – | 28906-13-0 |
| 15) | TBBA carbonate oligomer, phenoxy end capped | – | 94334-64-2 |
| 16) | TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated | – | 71342-77-3 |
| 17) | TBBA-bisphenol A-phosgene polymer | – | 32844-27-2 |
| 18) | Brominated epoxy resin end-capped with tribromophenol | – | 139638-58-7 |
| 19) | Brominated epoxy resin end-capped with tribromophenol | – | 135229-48-0 |
| 20) | TBBA-(2,3-dibromo-propyl-ether) | – | 21850-44-2 |
| 21) | TBBA bis-(2-hydroxy-ethyl-ether) | – | 4162-45-2 |
| 22) | TBBA-bis-(allyl-ether) | – | 25327-89-3 |
| 23) | TBBA-dimethyl-ether | – | 37853-61-5 |
| 24) | Tetrabromo-bisphenol S | – | 39635-79-5 |
| 25) | TBBS-bis-(2,3-dibromo-propyl-ether) | – | 42757-55-1 |
| 26) | 2,4-Dibromo-phenol | – | 615-58-7 |
| 27) | 2,4,6-tribromo-phenol | – | 118-79-6 |
| 28) | Pentabromo-phenol | – | 608-71-9 |
| 29) | 2,4,6-Tribromo-phenyl-allyl-ether | – | 3278-89-5 |
| 30) | Tribromo-phenyl-allyl-ether, unspecified | – | 26762-91-4 |
| 31) | Bis(methyl)tetrabromo-phtalate | – | 55481-60-2 |
| 32) | Bis(2-ethylhexyl)tetrabromo-phtalate | – | 26040-51-7 |
| 33) | 2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP | – | 20566-35-2 |
| 34) | TBPA, glycol-and propylene-oxide esters | – | 75790-69-1 |
| 35) | N,N'-Ethylene -bis-(tetrabromo-phthalimide) | – | 32588-76-4 |
| 36) | Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide) | – | 52907-07-0 |
| 37) | 2,3-Dibromo-2-butene-1,4-diol | – | 3234-02-4 |
| 38) | Dibromo-neopentyl-glycol | – | 3296-90-0 |
| 39) | Dibromo-propanol | – | 96-13-9 |
| 40) | Tribromo-neopentyl-alcohol | – | 36483-57-5 |
| 41) | Poly tribromo-styrene | – | 57137-10-7 |
| 42) | Tribromo-styrene | – | 61368-34-1 |
| 43) | Dibromo-styrene grafted PP | – | 171091-06-8 |

Table EC-810-05-02

16. Brominated flame retardants (other than PBBs, PBDEs or HBCDD) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|--|---|-------------|
| 44) | Poly-dibromo-styrene | – | 31780-26-4 |
| 45) | Bromo-/Chloro-paraffins | – | 68955-41-9 |
| 46) | Bromo-/Chloro-alpha-olefin | – | 82600-56-4 |
| 47) | Vinylbromide | – | 593-60-2 |
| 48) | Tris-(2,3-dibromo-propyl)-isocyanurate | – | 52434-90-9 |
| 49) | Tris(2,4-Dibromo-phenyl) phosphate | – | 49690-63-3 |
| 50) | Tris(tribromo-neopentyl) phosphate | – | 19186-97-1 |
| 51) | Chlorinated and brominated phosphate ester | – | 125997-20-8 |
| 52) | Pentabromo-toluene | – | 87-83-2 |
| 53) | Pentabromo-benzyl bromide | – | 38521-51-6 |
| 54) | 1,3-Butadiene homopolymer, brominated | – | 68441-46-3 |
| 55) | Pentabromo-benzyl-acrylate, monomer | – | 59447-55-1 |
| 56) | Pentabromo-benzyl-acrylate, polymer | – | 59447-57-3 |
| 57) | Decabromo-diphenyl-ethane | – | 84852-53-9 |
| 58) | Tribromo-bisphenyl-maleinimide | – | 59789-51-4 |
| 59) | Tetrabromo-chyclo-octane | – | 31454-48-5 |
| 60) | 1,2-Dibromo-4-(1,2 dibromo-methyl)-cyclo-hexane | – | 3322-93-8 |
| 61) | TBPA Na salt | – | 25357-79-3 |
| 62) | Tetrabromo phthalic anhydride | – | 632-79-1 |
| 63) | Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808) | – | 155613-93-7 |
| 99) | Other brominated flame retardants | – | – |

17. Tri-substituted organostannic compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|--|-------------------------|------------|
| 1) | Triphenyltin-N,N-dimethyldithiocarbamate | 0.252 | 1803-12-9 |
| 2) | Triphenyltinfluoride | 0.322 | 379-52-2 |
| 3) | Triphenyltinacetate | 0.290 | 900-95-8 |
| 4) | Triphenyltinchloride | 0.308 | 639-58-7 |
| 5) | Triphenyltinhydroxide | 0.323 | 76-87-9 |
| 6) | Triphenyltin fattyacide ((0-11)salt) | 0.234 | 18380-71-7 |
| | | 0.234 | 18380-72-8 |
| | | 0.228 | 47672-31-1 |
| | | 0.222 | 94850-90-5 |
| 7) | Triphenyltinchloroacetate | 0.268 | 7094-94-2 |
| 8) | Tributyltinmethacrylate | 0.316 | 2155-70-6 |
| 9) | Bis (tributyltin) fumarate | 0.342 | 6454-35-9 |
| 10) | Tributyltinfluoride | 0.384 | 1983-10-4 |
| 11) | Bis(tributyltin)2,3-dibromosuccinate | 0.278 | 31732-71-5 |
| 12) | Tributyltinacetate | 0.340 | 56-36-0 |
| 13) | Tributyltinlaurate | 0.243 | 3090-36-6 |
| 14) | Bis(tributyltin)phthalate | 0.319 | 4782-29-0 |
| 15) | Copolymer of alkyl(c=8)acrylate, methyl methacrylate and tributyltin methacryate | 0.180 | 67772-01-4 |
| 16) | Tributyltinsulfamate | 0.307 | 6517-25-5 |
| 17) | Bis (tributyltin) maleate | 0.341 | 14275-57-1 |
| | | | 1461-22-9 |
| 18) | Tributyltinchloride | 0.365 | 7342-38-3 |
| | | | 85409-17-2 |
| 19) | Tributyltin cyclopentane carbonate = mixture | 0.420 | 85409-17-2 |

17. Tri-substituted organostannic compounds (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|--|-------------------------|-------------|
| 20) | Tributyltin-1,2,3,4a,4b,5,6,10,110a-decahydro-7-isopropyl-1,4a-dimethyl-1-phenanthrenecarboxylatemic | 0.201 | 26239-64-5 |
| 21) | Triethyltin hydroxide | 0.533 | 994-32-1 |
| 99) | Other tri-substituted organostannic compounds | - | JAMP-SN0068 |

18. Dibutyltin compounds (DBT) (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|--|-------------------------|-------------|
| 1) | Dibutyltin oxide | 0.477 | 818-08-6 |
| 2) | Dibutyltin diacetate | 0.338 | 1067-33-0 |
| 3) | Dibutyltin dilaurate | 0.188 | 77-58-7 |
| 4) | Dibutyltin maleate | 0.342 | 78-04-6 |
| 5) | Dibutyltin dichloride (DBTC) | 0.391 | 683-18-1 |
| 6) | Di- μ -oxo-di-n-butylstanniohydroxyborane / Dibutyltin hydrogen borate C ₈ H ₁₉ BO ₃ Sn (DBB) | 0.410 | 75113-37-0 |
| 99) | Other dibutyltin compounds | - | JAMP-SN0072 |

19. Dioctyltin compounds (DOT) (Groups)

| No. | Substance Name | Metal Conversion Factor | CAS No. |
|-----|---|-------------------------|-------------|
| 1) | Dioctyl Tin Oxide | 0.329 | 870-08-6 |
| 2) | Dioctyltin dilaurate | 0.160 | 3648-18-8 |
| 3) | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE) | 0.158 | 15571-58-1 |
| 99) | Other Dioctyltin compounds | - | JAMP-SN0073 |

20. Asbestos (Group)

| No. | Substance Name | - | CAS No. |
|-----|----------------|---|------------|
| 1) | Asbestos | - | 1332-21-4 |
| 2) | Actinolite | - | 77536-66-4 |
| 3) | Amosite | - | 12172-73-5 |
| 4) | Anthophyllite | - | 77536-67-5 |
| 5) | Chrysotile | - | 12001-29-5 |
| 6) | Crocidolite | - | 12001-28-4 |
| 7) | Tremolite | - | 77536-68-6 |

21. Azocolorants and azodyes which form certain aromatic amines (Groups)

| No. | Substance Name | - | CAS No. |
|-----|---|---|----------|
| 1) | biphenyl-4-ylamine | - | 92-67-1 |
| 2) | Benzidine | - | 92-87-5 |
| 3) | 4-chloro- <i>o</i> -toluidine | - | 95-69-2 |
| 4) | 2-naphthylamine | - | 91-59-8 |
| 5) | <i>o</i> -aminoazotoluene | - | 97-56-3 |
| 6) | 5-nitro- <i>o</i> -toluidine | - | 99-55-8 |
| 7) | <i>p</i> -chloroaniline | - | 106-47-8 |
| 8) | 2,4-methoxy- <i>m</i> -phenylenediamine | - | 615-05-4 |
| 9) | 4,4'-methylenedianiline | - | 101-77-9 |
| 10) | 3,3'-dichlorobenzidine | - | 91-94-1 |
| 11) | 3,3'-dimethoxybenzidine | - | 119-90-4 |

21. Azocolorants and azodyes which form certain aromatic amines (Groups)

| No. | Substance Name | - | CAS No. |
|-----|---|---|-------------|
| 12) | 3,3'-dimethylbenzidine | - | 119-93-7 |
| 13) | 4,4'-methylenedi- o -toluidine | - | 838-88-0 |
| 14) | 6-methoxy-m-toluidine | - | 120-71-8 |
| 15) | 4,4'-methyene-bis(2-chlorosniline) | - | 101-14-4 |
| 16) | 4,4'-oxydianiline | - | 101-80-4 |
| 17) | 4,4'-thiodianiline | - | 139-65-1 |
| 18) | o-toluidine | - | 95-53-4 |
| 19) | 4-methyl-m-phenylenediamine | - | 95-80-7 |
| 20) | 2,4,5-trimethylaniline | - | 137-17-7 |
| 21) | o-anisidine | - | 90-04-0 |
| 22) | 4-aminoazobenzene | - | 60-09-3 |
| 23) | C.I.Direct black 38 | - | 1937-37-7 |
| 24) | Disodium 3,3'-[[1,1'biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-subphonate) (CI Direct Red28) | - | 573-58-0 |
| 25) | 4-Nitrobiphenyl | - | 92-93-3 |
| 99) | Azodyes which, by reductive cleavage of one or more azo groups, may release one or more of the specific aromatic amines [group] | - | JAMP-SN0011 |

Note : The European Community's ban applies to azocolorants and azodyes that by reductive cleavage of azo groups may release one of the above 24 aromatic amines.

33. Other phthalates (DIDP,DINP,DNOP,DNHP) (Groups)

| No. | Substance Name | - | CAS No. |
|-----|--|---|--------------------------|
| 1) | 1,2-Benzenedicarboxylic acid diisodecyl ester (DIDP) | - | 26761-40-0 |
| 2) | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | - | 68515-42-4 68515-49-1 |
| 3) | Diisononyl phthalate (DINP) | - | 28553-12-0 68515-48-0 |
| 4) | Di-n-octyl phthalate (DNOP) | - | 117-84-0 |
| 5) | Bis (2-methoxyethyl) phthalate (DNHP) | - | 84-75-3 |
| | 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate | - | 68515-51-5 68648-93-1 |
| 6) | Diisopentylphthalate (DIPP) | - | 605-50-5 |
| 7) | N-pentyl-isopentylphthalate | - | 776297-69-9 |
| 8) | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich | - | 71888-89-6 |
| 9) | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | - | 68515-50-4 |
| 10) | Bis(2-methoxyethyl) phthalate | - | 117-82-8 |
| 11) | Dipentyl phthalate | - | 131-18-0 |
| 12) | 1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear | - | 84777-06-0 |

34. Fluorinated greenhouse gases (Groups)

Perfluorocarbons (PFC), Sulfur hexafluoride (SF6) & Hydrofluorocarbons (HFC)

| No. | Substance Name | - | CAS No. |
|-----|--|---|-----------|
| 1) | Tetrafluoromethane (Carbon tetrafluoride,PFC-14) | - | 75-73-0 |
| 2) | Hexafluoroethane (PFC-116) | - | 76-16-4 |
| 3) | Octafluoropropane (PFC-218) | - | 76-19-7 |
| 4) | Decafluorobutane (PFC-31-10) | - | 355-25-9 |
| 5) | Dodecafluoropentane (PFC-41-12) | - | 678-26-2 |
| 6) | Tetradecafluorohexane (PFC-51-14) | - | 355-42-0 |
| 7) | Octafluorocyclobutane (PFC-c318) | - | 115-25-3 |
| 8) | Sulfur Hexafluoride (SF6) | - | 2551-62-4 |
| 9) | Trifluoromethane (HFC-23) | - | 75-46-7 |
| 10) | Difluoromethane (HFC-32) | - | 75-10-5 |
| 11) | Methyl fluoride (HFC-41) | - | 593-53-3 |

34. Fluorinated greenhouse gases (Groups)

Perfluorocarbons (PFC), Sulfur hexafluoride (SF6) & Hydrofluorocarbons (HFC)

| No. | Substance Name | – | CAS No. |
|-----|--|---|-------------|
| 12) | 2H,3H-Decafluoropentane (HFC-43-10mee) | – | 138495-42-8 |
| 13) | Pentafluoroethane (HFC-125) | – | 354-33-6 |
| 14) | 1,1,2,3-Tetrafluoroethane (HFC-134) | – | 359-35-3 |
| 15) | 1,1,1,2-Tetrafluoroethane (HFC-134a) | – | 811-97-2 |
| 16) | 1,1-Difluoroethane (HFC-152a) | – | 75-37-6 |
| 17) | 1,1,2-Trifluoroethane (HFC-143) | – | 430-66-0 |
| 18) | 1,1,1-Trifluoroethane (HFC-143a) | – | 420-46-2 |
| 19) | 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea) | – | 431-89-0 |
| 20) | 1,1,1,2,2,3-Hexafluoropropane (HFC-236cb) | – | 677-56-5 |
| 21) | 1,1,1,2,3,3-Hexafluoropropane (HFC-236ea) | – | 431-63-0 |
| 22) | 1,1,1,3,3,3-Hexafluoropropane (HFC-236fa) | – | 690-39-1 |
| 23) | 1,1,2,2,3-Pentafluoropropane (HFC-245ca) | – | 679-86-7 |
| 24) | 1,1,1,3,3-Pentafluoropropane (HFC-245fa) | – | 460-73-1 |
| 25) | 1,1,1,3,3-Pentafluorobutane (HFC-365mfc) | – | 406-58-6 |
| 26) | 1,2-Difluoroethane | – | 624-72-6 |
| 27) | Ethylfluorid | – | 353-36-6 |

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|-----|--|---|-------------|
| 1) | Trichlorofluoromethane (CFC-11) | – | 75-69-4 |
| 2) | Dichlorodifluoromethane (CFC-12) | – | 75-71-8 |
| 3) | Chlorotrifluoromethane (CFC-13) | – | 75-72-9 |
| 4) | Pentachlorofluoroethane (CFC-111) | – | 354-56-3 |
| | | – | 945-56-3 |
| | | – | 29756-45-4 |
| 5) | Tetrachlorodifluoroethane (CFC-112) | – | 28605-74-5 |
| | 1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112) | – | 76-12-0 |
| | 1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a) | – | 76-11-9 |
| 6) | Trichlorotrifluoroethane (CFC-113) | – | 354-58-5 |
| | | – | 26523-64-8 |
| | 1,1,2-Trichloro-1,2,2 trifluoroethane | – | 76-13-1 |
| 7) | Dichlorotetrafluoroethane (CFC-114) | – | 76-14-2 |
| | | – | 1320-37-2 |
| 8) | Monochloropentafluoroethane (CFC-115) | – | 76-15-3 |
| 9) | Heptachlorofluoropropane (CFC-211) | – | 422-78-6 |
| | | – | 135401-87-5 |
| | 1,1,1,2,2,3,3-Heptachloro-3-fluoropropane (CFC-211aa) | – | 422-78-6 |
| | 1,1,1,2,2,3,3-Heptachloro-2-fluoropropane (CFC-211ba) | – | 422-81-1 |
| 10) | Hexachlorodifluoropropane (CFC-212) | – | 3182-26-1 |
| | | – | 134452-44-1 |
| 11) | Pentachlorotrifluoropropane (CFC-213) | – | 2354-06-5 |
| | | – | 134237-31-3 |
| 12) | Tetrachlorotetrafluoropropane (CFC-214) | – | 29255-31-0 |
| | 1,2,2,3-Tetrachloro-1,1,1,3-tetrafluoropropane (CFC-214aa) | – | 2268-46-4 |
| | 1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane (CFC-214cb) | – | 677-68-9 |

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|-----|---|---|-------------|
| 13) | Trichloropentafluoropropane (CFC-215) | – | – |
| | 1,2,2-Trichloropentafluoropropane (CFC-215) | – | 1599-41-3 |
| | 1,2,3-Trichloropentafluoropropane (CFC-215) | – | 76-17-5 |
| | 1,1,2-Trichloropentafluoropropane (CFC-215bb) | – | 812-30-6 |
| | 1,1,3-Trichloropentafluoropropane (CFC-215ca) | – | 1652-81-9 |
| | 1,1,1-Trichloropentafluoropropane (CFC-215) | – | 4259-43-2 |
| 14) | Dichlorohexafluoropropane (CFC-216) | – | 661-97-2 |
| | | | 662-01-1 |
| 15) | Monochloroheptafluoropropane (CFC-217) | – | 422-86-6 |
| | | | 76-18-6 |
| 16) | Bromochloromethane (Halon-1011) | – | 74-97-5 |
| 17) | Dibromodifluoromethane (Halon-1202) | – | 75-61-6 |
| 18) | Bromochlorodifluoromethane (Halon-1211) | – | 353-59-3 |
| 19) | Bromotrifluoromethane (Halon-1301) | – | 75-63-8 |
| 20) | Dibromotetrafluoroethane (Halon-2402) | – | 124-73-2 |
| | | | 25497-30-7 |
| | | | 27336-23-8 |
| 21) | Tetrachloromethane (Carbon tetrachloride) | – | 56-23-5 |
| 22) | 1,1,1, – Trichloroethane (Methyl chloroform) | – | 71-55-6 |
| 23) | Bromomethane (Methyl bromide) | – | 74-83-9 |
| 24) | Bromoethane (Ethyl bromide) | – | 74-96-4 |
| 25) | 1-Bromopropane (n-propyl bromide) | – | 106-94-5 |
| 26) | Trifluoroiodomethane (Trifluoromethyl iodide) | – | 2314-97-8 |
| 27) | Chloromethane (Methyl chloride) | – | 74-87-3 |
| 28) | Dibromodifluoromethane (HBFC-21 B2) | – | 1868-53-7 |
| 29) | Bromodifluoromethane (HBFC-22 B1) | – | 1511-62-2 |
| 30) | Bromofluoromethane (HBFC-31 B1) | – | 373-52-4 |
| 31) | Tetrabromofluoroethane (HBFC-121 B4) | – | 306-80-9 |
| | | | 353-93-5 |
| 32) | Tribromodifluoroethane (HBFC-122 B3) | – | 353-97-9 |
| | | | 677-34-9 |
| | | | 7304-53-2 |
| 33) | Dibromodifluoroethane (HBFC-123 B2) | – | 354-04-1 |
| 34) | Bromotetrafluoroethane (HBFC-124 B1) | – | 124-72-1 |
| 35) | Tribromofluoroethane (HBFC-131 B3) | – | 172912-75-3 |
| | | | 420-88-2 |
| | | | 598-67-4 |
| 36) | Dibromodifluoroethane (HBFC-123 B2) | – | 75-82-1 |
| | | | 359-19-3 |
| | | | 430-85-3 |
| 37) | Bromotrifluoroethane (HBFC-133 B1) | – | 421-06-7 |
| 38) | Dibromofluoroethane (HBFC-141 B2) | – | 358-97-4 |
| 39) | Bromodifluoroethane (HBFC-142 B1) | – | 420-47-3 |
| | | | 359-07-9 |
| 40) | Bromofluoroethane (HBFC-151 B1) | – | 762-49-2 |
| 41) | Hexabromofluoropropane (HBFC-221 B6) | – | – |

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|---|--|----------|-------------|
| 42) | Pentabromodifluoropropane (HBFC-222 B5) | – | – |
| 43) | Tetrabromotrifluoropropane (HBFC-223 B4) | – | – |
| 44) | Tribromotetrafluoropropane (HBFC-224 B3) | – | 666-48-8 |
| 45) | Dibromopentafluoropropane (HBFC-225 B2) | – | 431-78-7 |
| 46) | Bromohexafluoropropane (HBFC-226 B1) | – | – |
| | | | 2252-78-0 |
| 47) | Pentabromofluoropropane (HBFC-231 B5) | – | – |
| 48) | Tetrabromodifluoropropane (HBFC-232 B4) | – | 148875-98-3 |
| 49) | Tribromotrifluoropropane (HBFC-233 B3) | – | 431-48-1 |
| | | | 421-90-9 |
| 50) | Dibromotetrafluoropropane (HBFC-234 B2) | – | 460-86-6 |
| 51) | C3H2F5Br; 2-bromo-1,1,1,3,3-pentafluoro-propane | – | 22692-16-6 |
| | C3H2F5Br; 2-bromo-1,1,2,3,3-pentafluoro-propane | – | 26391-11-7 |
| | C3H2F5Br; Propane, 3-bromo-1,1,1,2,3-pentafluoro-, (R*,S*)- (9CI) | – | 53692-43-6 |
| | C3H2F5Br; Propane, 3-bromo-1,1,1,2,3-pentafluoro-, (R*,R*)- (9CI) | – | 53692-44-7 |
| | C3H2F5Br; 2-bromo-1,1,1,2,3-pentafluoro-propane | – | 677-52-1 |
| | C3H2F5Br; 1-bromo-1,1,2,2,2-pentafluoro-propane | – | 422-01-5 |
| | Bromopentafluoropropane; C3H2F5Br; 1-bromo-1,1,3,3,3-pentafluoro-propane | – | 460-88-8 |
| | C3H2F5Br; 1-bromo-1,1,2,2,3-pentafluoro-propane | – | 677-53-2 |
| C3H2F5Br; 1-bromo-1,2,2,3,3-pentafluoro-propane | – | 679-94-7 | |
| 52) | Tetrabromofluoropropane (HBFC-241 B4) | – | – |
| | C3H3FBr4 | – | 148875-95-0 |
| 53) | 1,2,3-Tribromo-3,3-difluoropropane | – | 666-25-1 |
| | C3H3F4Br; 1-bromo-1,1,2,2-tetrafluoropropane | – | 70192-80-2 |
| 54) | Dibromotrifluoropropane (HBFC-243 B2) | – | – |
| | Dibromotrifluoropropane; 2,3-Dibromo-1,1,1-trifluoropropane | – | 431-21-0 |
| 55) | C3H3F4Br; 2-bromo-1,1,3,3-tetrafluoro-propane | – | 19041-01-1 |
| | C3H3F4Br; 2-bromo-1,3,3,3-tetrafluoropropane | – | 70192-71-1 |
| | C3H3F4Br; 2-bromo-1,3,3,3-tetrafluoropropane | – | 29151-25-5 |
| | C3H3F4Br; 3-bromo-1,1,1,3-tetrafluoropropane | – | 460-60-6 |
| | Bromotetrafluoropropane; C3H3F4Br; 3-Bromo-1,1,2,2-tetrafluoropropane | – | 679-84-5 |
| 56) | C3H3F4Br; 1-bromo-1,1,2,2-tetrafluoropropane | – | 70192-84-6 |
| | Tribromofluoropropane (HBFC-251 B1) | – | – |
| 57) | Tribromofluoropropane | – | 75372-14-4 |
| | Dibromodifluoropropane;(HBFC-252) | – | – |
| 58) | Dibromodifluoropropane; 1,3-Dibromo-1,1-difluoropropane | – | 460-25-3 |
| | Bromotrifluoropropane (HBFC-253 B1) | – | – |
| 59) | 3-Bromo-1,1,1-trifluoropropane | – | 460-32-2 |
| | Bromotrifluoropropane | – | 421-46-5 |
| 59) | Dibromofluoropropane (HBFC-261 B2) | – | – |
| | C3H5FBr2; 1,3-Dibromo-2-fluoropropane | – | 1786-38-5 |
| | C3H5FBr2; 1,2-Dibromo-3-fluoropropane | – | 453-00-9 |
| | Dibromofluoropropane; C3H5FBr2; 1,3-Dibromo-1-fluoropropane | – | 51584-26-0 |
| | C3H5FBr2; 1,2-Dibromo-1-fluoro-(R*,R*)-propane | – | 62135-11-9 |
| | C3H5FBr2; 1,2-Dibromo-1-fluoro-(R*,S*)-propane | – | 62135-10-8 |

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|-----|--|---|-----------------------------|
| 60) | C3H5F2Br; 1-bromo-1,1-difluoro-propane | – | 420-89-3 |
| | C3H5F2Br; 2-bromo-1,1-difluoro-propane | – | 430-87-5 |
| | C3H5F2Br; 1-bromo-2,3-difluoro-propane | – | 111483-20-6 |
| | C3H5F2Br; 2-bromo-1,3-difluoro-propane | – | 2195-05-3 |
| | C3H5F2Br; 1-bromo-2,2-difluoro-propane | – | 420-98-4 |
| | C3H5F2Br; 3-bromo-1,1-difluoro-propane | – | 461-49-4 |
| 61) | Bromofluoropropane (HBFC-271 B1) | – | – |
| | Bromofluoropropane; Propane, 1-bromo-2-fluoro- | – | '1871-72-3 |
| | 1-Bromo-3-fluoropropane | – | 352-91-0 |
| 62) | Dichlorofluoromethane (HCF-21) | – | 75-43-4 |
| 63) | Chlorodifluoromethane (HCFC-22) | – | 75-45-6 |
| 64) | Chlorofluoromethane (HCFC-31) | – | 593-70-4 |
| 65) | Tetrachlorofluoroethane (HCFC-121) | – | 134237-32-4 |
| | 1,1,2,2-tetrachloro-1-fluoroethane (HCFC-121) | – | 354-14-3 |
| | 1,1,1,2-tetrachloro-2-fluoroethane (HCFC-121a) | – | 354-11-0 |
| 66) | Trichlorodifluoroethane (HCFC-122) | – | 41834-16-6 |
| | 1,2,2-trichloro-1,1-difluoroethane (HCFC-122) | – | 354-21-2 |
| | 1,1,2-trichloro-1,1-difluoroethane (HCFC-122a) | – | 354-15-4 |
| | 1,1,1-trichloro-1,1-difluoroethane (HCFC-122b) | – | 354-12-1 |
| 67) | Dichlorotrifluoroethane (HCFC 123) | – | 34077-87-7 |
| | 2,2-dichloro-1,1,1-trifluoroethane | – | 306-83-2 |
| | 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a) | – | 354-23-4 |
| | dichloro-1,1,2-trifluoroethane | – | 90454-18-5 |
| | 1,1-dichloro-1,2,2-trifluoroethane (HCFC-123b) | – | 812-04-4 |
| 68) | Chlorotetrafluoroethane (HCFC-124) | – | 63938-10-3 |
| | 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124) | – | 2837-89-0 |
| | 1-chloro-1,1,2,2-tetrafluoroethane (HCFC-124a) | – | 354-25-6 |
| 69) | Trichlorofluoroethane (HCFC-131) | – | 27154-33-2 (134237-34-6) |
| | 1,1,2-Trichloro-2-fluoroethane (HCFC-131) | – | 359-28-4 |
| | | | 2366-36-1 |
| | 1,1,1-Trichloro-2-fluoroethane (HCFC131b) | – | 811-95-0 |
| 70) | Dichlorodifluoroethane (HCFC-132) | – | 25915-78-0 |
| | 1,2-dichloro-1,2-difluoroethane (HCFC-132) | – | 431-06-1 |
| | 1,1-dichloro-2,2-difluoroethane (HCFC-132a) | – | 471-43-2 |
| | 1,2-dichloro-1,1-difluoroethane (HCFC-132b) | – | 1649-08-7 |
| | 1,1-dichloro-1,2-difluoroethane (HCFC-132c) | – | 1842-05-3 |
| 71) | Chlorotrifluoroethane (HCFC-133) | – | 1330-45-6 |
| | 1-chloro-1,2,2-trifluoroethane (HCFC-133) | – | 431-07-2 |
| | 2-chloro-1,1,1-trifluoroethane (HCFC-133a) | – | 75-88-7 |
| | 1-chloro-1,1,2-trifluoroethane (HCFC-133b) | – | 421-04-5 |
| 72) | Dichlorofluoroethane (HCFC-141) | – | 25167-88-8 |
| | | | 358-97-4 |
| | 1,2-dichloro-1-fluoroethane | – | 430-57-9 |
| | 1,1-dichloro-2-fluoroethane (HCFC-141a) | – | 430-53-5 |
| | | | 1717-00-6 |

Table EC-810-05-02

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|--|--|-------------|----------------------------|
| 73) | Chlorodifluoroethane (HCFC-142) | – | 25497-29-4 55949-44-5 |
| | 2-chloro-1,1-difluoroethane (HCFC-142) | – | 338-65-8 |
| | 1-chloro-1,1-difluoroethane (HCFC-142b) | – | 75-68-3 |
| | 1-chloro-1,2-difluoroethane (HCFC-142a) | – | 338-64-7 |
| 74) | Chlorofluoroethane (HCFC-151) | – | 110587-14-9 |
| | 1-Chloro-2-fluoroethane (HCFC-151) | – | 762-50-5 |
| | 1-Chloro-1-fluoroethane (HCFC-151a) | – | 1615-75-4 |
| 75) | Hexachlorofluoropropane (HCFC-221) | – | 134237-35-7 29470-94-8 |
| | 1,1,1,2,2,3-Hexachloro-3-fluoropropane (HCFC-221ab) | – | 422-26-4 |
| 76) | Pentachlorodifluoropropane (HCFC-222) | – | 134237-36-8 116867-32-4 |
| | 1,1,1,3,3-Pentachloro-2,2-difluoropropane (HCFC-222ca) | – | 422-49-1 |
| | 1,2,2,3,3-Pentachloro-1,1-difluoropropane (HCFC-222aa) | – | 422-30-0 |
| 77) | Tetrachlorotrifluoropropane (HCFC-223) | – | 134237-37-9 |
| | 1,1,3,3-Tetrachloro-1,2,2-trifluoropropane | – | 422-52-6 |
| | 1,1,1,3-Tetrachloro-2,2,3-trifluoropropane | – | 422-50-4 |
| 78) | Trichlorotetrafluoropropane (HCFC-224) | – | 134237-38-0 |
| | 1,3,3-Trichloro-1,1,2,2-tetrafluoropropane (HCFC-224ca) | – | 422-54-8 |
| | 1,1,3-Trichloro-1,2,2,3-tetrafluoropropane (HCFC-224cb) | – | 422-53-7 |
| | 1,1,1-Trichloro-2,2,3,3-tetrafluoropropane (HCFC-224cc) | – | 522-54-8 |
| 79) | Dichloropentafluoropropane, (Ethyne, fluoro-) (HCFC-225) | – | 127564-92-5 |
| | 2,2-Dichloro-1,1,1,3,3-pentafluoropropane (HCFC-225aa) | – | 128903-21-9 |
| | 2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba) | – | 422-48-0 |
| | 1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb) | – | 422-44-6 |
| | 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) | – | 422-56-0 |
| | 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) | – | 507-55-1 |
| | 1,1-Dichloro-1,2,2,3,3-pentafluoropropane (HCFC-225cc) | – | 13474-88-9 |
| | 1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da) | – | 431-86-7 |
| | 1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea) | – | 136013-79-1 |
| 1,1-Dichloro-1,2,3,3,3-pentafluoropropane (HCFC-225eb) | – | 111512-56-2 | |
| 80) | Chlorohexafluoropropane (HCFC-226) | – | 134308-72-8 |
| | 2-Chloro-1,1,1,3,3,3-hexafluoro-propane (HCFC-226da) | – | 431-87-8 51346-64-6 |
| | | | |
| 81) | Pentachlorofluoropropane (HCFC-231) | – | 134190-48-0 |
| | 1,1,1,2,3-Pentachloro-2-fluoro-propane (HCFC-231bb) | – | 421-94-3 |
| 82) | Tetrachlorodifluoropropane (HCFC-232) | – | 134237-39-1 |
| | 1,1,1,3-Tetrachloro-3,3-difluoropropane | – | 460-89-9 |
| 83) | Trichlorotrifluoropropane (HCFC-233) | – | 134237-40-4 |
| | 1,1,1-Trichloro-3,3,3-trifluoropropane | – | 7125-83-9 |
| 84) | Dichlorotetrafluoropropane (HCFC-234) | – | 127564-83-4 |
| | 1,2-Dichloro-1,2,3,3-tetrafluoropropane(HCFC-234) | – | 425-94-5 |
| 85) | Chloropentafluoropropane (HCFC-235) | – | 108662-83-5 134237-41-5 |
| | | | |
| | 1-Chloro-1,1,3,3,3-pentafluoropropane | – | 460-92-4 |

35. Ozone depleting substances (Groups)

Chlorofluorocarbons (CFC), Halons, Hydrobromo (HBFC), Hydrochlorofluorocarbons (HCFC) and others

| No. | Substance Name | – | CAS No. |
|-----|---|---|-------------|
| 86) | Tetrachlorofluoropropane (HCFC-241) | – | 134190-49-1 |
| | 1,1,2,3-Tetrachloro-1-fluoropropane (HCFC-241db) | – | 666-27-3 |
| 87) | Trichlorodifluoropropane (HCFC-242) | – | 127564-90-3 |
| | 1,3,3, trichloro-1,1-difluoropropane (HCFC-242fa) | – | 134237-42-6 |
| 88) | Dichlorotrifluoropropane (HCFC-243) | – | 116890-51-8 |
| | 1,1-dichloro-1,2,2-trifluoropropane | – | 134237-43-7 |
| | 2,3-dichloro-1,1,1-trifluoropropane | – | 7125-99-7 |
| | 3,3-Dichloro-1,1,1-trifluoropropane | – | 338-75-0 |
| 89) | Chlorotetrafluoropropane (HCFC-244) | – | 460-69-5 |
| | 3-chloro-1,1,2,2-tetrafluoropropane | – | 134190-50-4 |
| | 3-chloro-1,1,2,2-tetrafluoropropaneH (CFC-251) | – | 134190-50-4 |
| 90) | 1,1,3-trichloro-1-fluoropropane(HCFC-251fb) | – | 134190-51-5 |
| | 1,1,3-trichloro-1-fluoropropane | – | 818-99-5 |
| | 1,1,3-trichloro-1-fluoropropane | – | 421-41-0 |
| 91) | Dichlorodifluoropropane (HCFC-252) | – | 112-01-2 |
| | 1,3-Dichloro-1,1-difluoropropane (HCFC-225fb) | – | 134190-52-6 |
| | | – | 112-36-3 |
| | | – | 819-00-1 |
| 92) | Chlorotrifluoropropane (HCFC-253) | – | 134237-44-8 |
| | 3-chloro-1,1,1-trifluoropropane (HCFC-253fb) | – | 26588-23-8 |
| | | – | 56758-54-4 |
| | | – | 70192-76-6 |
| 93) | Dichlorofluoropropane (HCFC-261) | – | 460-35-5 |
| | 1,1-Dichloro-1-fluoropropane (HCFFC-261fc) | – | 134237-45-9 |
| | 1,2-Dichloro-2-fluoropropane (HCFC-261ba) | – | 127404-11-9 |
| 94) | Chlorodifluoropropane (HCFC-262) | – | 7799-56-6 |
| | 1-Chloro-2,2-difluoropropane (HCFC-C262ca) | – | 420-97-3 |
| | 2-Chloro-1,3-difluoropropane (HCFC-C262ca) | – | 134190-53-7 |
| | 2-chloro-1,3-difluoropropane | – | 420-99-5 |
| 95) | Chlorofluoropropane (HCFC-271) | – | 102738-79-4 |
| | 2-Chloro-2-fluoropropane (HCFC-271ba) | – | 421-02-3 |
| | 1-Chloro-1-fluoropropane (HCFC-271fb) | – | 134190-54-8 |
| | | – | 420-44-0 |
| | | – | 430-55-7 |

* Note : These substances may contain further isomers that are not listed here. Isomers with CAS numbers have been included when available.

36. Perfluorooctane Sulfonates (PFOS) Groups

| No. | Substance Name | – | CAS No. |
|-----|---|---|------------|
| 1) | Perfluorooctane Sulfonates (PFOS) | – | 1763-23-1 |
| 2) | Perfluoro-1-octane Sulfonylfluoride | – | 307-35-7 |
| 3) | Perfluorooctane Sulfonates lithium salt | – | 29457-72-5 |
| 4) | Perfluorooctane Sulfonates Potassium salt | – | 2795-39-3 |

39. Radioactive substances (Radioactive isotope) (Groups)

| No. | Substance Name | – | CAS No. |
|-----|------------------------------|---|------------|
| 1) | Uranium | – | 7440-61-1 |
| 2) | Radon | – | 10043-92-2 |
| 3) | Americium | – | 14596-10-2 |
| 4) | Thorium | – | 7440-29-1 |
| 5) | CesiumCesium | – | 10045-97-3 |
| 6) | Strontium | – | 10098-97-2 |
| 7) | Other radioactive substances | – | – |

Note : Excluding natural substances

40. PAH (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---------------------------|---|----------|
| 1) | Benzo(a)pyrene | – | 50-32-8 |
| 2) | Benzo(e)pyrene | – | 192-97-2 |
| 3) | Benzo(a)anthracene | – | 56-55-3 |
| 4) | Chrsene | – | 218-01-9 |
| 5) | Benzo(b)acephenanthrylene | – | 205-99-2 |
| 6) | Benzo(j)fluoranthene | – | 205-82-3 |
| 7) | Benzo(k)fluoranthene | – | 207-08-9 |
| 8) | Dibenz(a,h)anthracene | – | 53-70-3 |

41. PFOA (Groups)

| No. | Substance Name | – | CAS No. |
|-----|---|---|-----------|
| 1) | Perfluorooctanic acid(PFOA) | – | 335-67-1 |
| 2) | Ammonium sait of PFOA | – | 3825-26-1 |
| 3) | Perfluorooctanic acid sodium sait,sodium salt of PFOA | – | 335-95-5 |
| 4) | Potassium salt of PFOA | – | 2395-00-8 |
| 5) | Silver salt of PFOA | – | 335-93-3 |
| 6) | Pentadecafluorooctanoy fluoride | – | 335-66-0 |
| 7) | Methy Pentadecaflorooctanoate | – | 376-27-2 |
| 8) | Ethyl Pentadecaflorooctanoate | – | 3108-24-5 |

42. Benzenamine,N-plenyl-,reaction Products with styrene and 2,4,4-trimetlylpenten(BNST)

| No. | Substance Name | – | CAS No. |
|-----|--|---|------------|
| 1) | Benzenamine,N-plenyl-,reaction Products with styrene and 2,4,4-trimetlylpenten | – | 68921-45-9 |

Table EC-810-05-03 Management object substances of REACH regulation (SVHC)

Revised : April 1, 2021

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|----------------------------|---|--|---|---|
| 1 th SVHC October 28, 2008 | | | | |
| 1 | Anthracene | 120-12-7 | Corrosion inhibitors: intermediates for the productions of anthraquinone, black carbon and dyes. | |
| 2 | 4,4'- Diaminodiphenylmethane (MDA) | 101-77-9 | Processed to methylenediphenyl diisocyanate (MDI): hardener for epoxy resins, high-performance polymers, and polyurethane: Paints, lacquers and varnishes: Adhesives, binding agents: Construction materials: Vulcanizing agents. | ● (2014/8/21) |
| 3 | Dibutyl phthalate (DBP) | 84-74-2 | Softener(plasticizer in PVC): Softeners: Adhesives, binding agents: Paints, lacquers and varnishes: Colouring agents: Construction materials: Solvents(Odour agents): Curing agents: Polishing agents. | ● (2015/2/21) |
| | | | Uses as Plasticiser in polymers, mainly flexible PVC. (Re-listing in 17th SVHC) | |
| 4 | Cobalt dichloride | 7646-79-9 | Colouring agents: Surface treatment: Process regulators: chemical removing of oxygen. (metal industry, rubber manufacturing) | |
| 5 | Diarsenic pentaoxide | 1303-28-2 | Impregnation materials: Wood preservative coatings: Fillers: harden copper, lead or gold in alloys: special glass. | ● (2015/5/21) |
| 6 | Diarsenic trioxide | 1327-53-3 | Intermediates(catalytic agents, Pigments, agricultural chemicals): Flame retardants and extinguishing agents: wood preservative. | ● (2015/5/21) |
| 7 | Sodium dichromate | 7789-12-0 10588-01-9 | Surface treatment: Oxidizing agents: Electroplating agents: Metal surface coating agents: inorganic chromate pigments. | ● (2017/9/21) |
| 8 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 81-15-2 | Cleaning/washing agents: Absorbents and Adsorbents: Surface treatment: Odour agents. | ● (2014/8/21) |
| 9 | Bis (2-ethylhexyl)phthalate (DEHP) | 117-81-7 | Plasticiser in polymers, mainly flexible PVC: Softeners: Construction materials: Fillers: Paints, lacquers and varnishes: Colouring agents: Adhesives, binding agents. | ● (2015/2/21) |
| | | | Uses as Plasticiser in polymers, mainly flexible PVC. (Re-listing in 12th SVHC) | |
| | | | Uses as Plasticiser in polymers, mainly flexible PVC. (Re-listing in 17th SVHC) | |
| 10 | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: | 25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8 | Flame retardant (electronic and electrical equipment, textiles): Stabilizer. | ● (2015/8/21) |
| 11 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) | 85535-84-8 | Cooling agents for metal processing: Sealants: Paints, lacquers and varnishes: Fillers: Softeners: Fixing agents: Cutting fluids. | |
| 12 | Bis(tributyltin)oxide (TBTO) | 56-35-9 | Paints, lacquers and varnishes: Impregnation materials: biocides (ship craft, cages, floats, fishing nets) : Non-agricultural pesticides and preservatives. | |
| 13 | Lead hydrogen arsenate | 7784-40-9 | Insecticide: Herbicide: Wood preservative. | |
| 14 | Benzyl butyl phthalate (BBP) | 85-68-7 | Motor vehicle painters: Paints, lacquers and varnishes: Fillers: Adhesives, binding agents: Softeners: plasticizer (softener) of PVC: Construction materials: Sealants(polysulfide based, polyurethane based, acrylic-based) | ● (2015/2/21) |
| | | | Uses as Adhesives, Sealant agent and Coating Products. (Re-listing in 17th SVHC) | |
| 15 | Triethyl arsenate | 15606-95-8 | Insecticide: Wood preservative. | |
| 2 th SVHC January 13, 2013 | | | | |
| 16 | Anthracene oil | 90640-80-5 | The substances are mainly used in the manufacture of other substances such as anthracene and carbon black. They may also be used as reducing agents in blast furnaces, as components in bunker fuel, for impregnating, sealing and corrosion protection. | ● (2020/10/4) |
| 17 | Anthracene oil, anthracene paste, distn. Lights | 91995-17-4 | | |
| 18 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | | |
| 19 | Anthracene oil, anthracene-low | 90640-82-7 | | |
| 20 | Anthracene oil, anthracene paste | 90640-81-6 | | |
| 21 | Pitch, coal tar, high temp. | 65996-93-2 | Pitch, coal tar, high temp. is mainly used in the production of electrodes for industrial applications. Smaller volumes are dedicated to specific uses such as heavy duty corrosion protection, special purpose paving, manufacture of other substances and the production of clay targets. | ● (2020/10/4) |

[○:Before sunset / ●:After sunset]; Annex XIV (Substances subject to authorization)

In (), the sunset date of the substance subject to authorization / (Year / month)

[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|-------------------------------|---|--------------------------------------|--|---|
| 22 | 2,4-Dinitrotoluene | 121-14-2 | 2,4-dinitrotoluene is used in the production of toluene diisocyanate, which is used for the manufacture of flexible polyurethane foams. The substance is also used as gelatinizing-plasticizing agent for the manufacture of explosives. | ● (2015/8/21) |
| 23 | Diisobutyl phthalate | 84-69-5 | Diisobutyl phthalate is used as plasticiser for nitrocellulose, cellulose ether, polyacrylate and polyacetate dispersions, and as a gelling aid in combination with other plasticisers, which are widely used for plastics, lacquers, adhesives, explosive material and nail polish. Uses as Coating Products, Filling agent, Putty, Stucco molding clay and Polymers. (Re-listing in 17th SVHC) | ● (2015/2/21) |
| 24 | Lead chromate | 7758-97-6 | Lead chromate is used for manufacturing pigments and dyes, and as a pigment or coating agent in industrial and maritime paint products or varnishes. Further potential uses may be associated with the formulation of detergents and bleaches, photosensitive materials, the manufacture of pyrotechnic powder or the embalming /restoring of art products. | ● (2015/5/21) |
| 25 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104) | 12656-85-8 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104) is used as a colouring, painting and coating agent in sectors such as the rubber, plastic and paints, coatings and varnishes industries. Applications comprise the production of agricultural equipment, vehicles and aircraft as well as road and airstrip painting. | ● (2015/5/21) |
| 26 | Lead sulfochromate yellow (C.I. Pigment Yellow 34) | 1344-37-2 | Lead sulfochromate yellow (C.I. Pigment Yellow 34) is used as a colouring, painting and coating agent in sectors such as the rubber, plastic and paints, coatings and varnishes industries. Applications comprise the production of agricultural equipment, vehicles and aircraft as well as road and airstrip painting. The substance is further used for camouflage or ammunition marking in the defence area. | ● (2015/5/21) |
| 27 | Tris(2-chloroethyl)phosphate | 115-96-8 | Tris(2-chloroethyl)phosphate is mainly used as an additive plasticiser and viscosity regulator with flame-retarding properties for acrylic resins, polyurethane, polyvinyl chloride and other polymers. Other fields of application are adhesives, coatings, flame resistant paints and varnishes. The main industrial branches to use TCEP are the furniture, the textile and the building industry. | ● (2015/8/21) |
| 2th SVHC March 18, 2010 (Add) | | | Potential uses | |
| 28 | Acrylamide | 79-06-1 | Acrylamide is almost exclusively used for the synthesis of polyacrylamides, which are used in various applications, in particular in waste water treatment and paper processing. Minor uses of acrylamide comprise the preparation of polyacrylamide gels for research purposes and as a grouting agent in civil engineering. | |
| 3th SVHC June 20, 2011 | | | Potential uses | |
| 29 | Trichloroethylene | 79-01-6 | Trichloroethylene is mainly used as intermediate in the manufacture of chlorinated and fluorinated organic compounds. Other uses are for cleaning and degreasing of metal parts or as solvent in adhesives. | ● (2016/4/21) |
| 30 | Boric acid | 10043-35-3 11113-50-1 | Boric acid is widely used on account of its consistency-influencing, flame-retarding, antiseptic and preservative properties. It is a component of detergents and cleaners, adhesives, toys, industrial fluids, brake fluids, glass, ceramics, flame retardants, paints, disinfectants, cosmetics, food additives, fertilisers, insecticides and other products. | |
| 31 | Disodium tetraborate, anhydrous | 1330-43-4 12179-04-3 1303-96-4 | Uses include a multitude of applications, e.g. in detergents and cleaners, in glass and glass fibres, ceramics, industrial fluids, metallurgy, adhesives, flame retardants, personal care products, biocides, fertilisers. | |
| 32 | Tetraboron disodium heptaoxide, hydrate | 12267-73-1 | Disodium tetraborate and tetraboron disodium heptaoxide form the same compounds in aqueous solutions. | |
| 33 | Sodium chromate | 7775-11-3 | Sodium chromate is mainly used as an intermediate in the manufacture of other chromium compounds as well as a laboratory analytical agent, but this use is limited. Other potential uses are mentioned in the literature but whether they occur in the EU is not clear. | ● (2017/9/21) |
| 34 | Potassium chromate | 7789-00-6 | Potassium chromate is used as a corrosion inhibitor for treatment and coating of metals, for manufacture of reagents, chemicals and textiles, as a colouring agent in ceramics, in the manufacture of pigments/inks and in the laboratory as analytical agent. | ● (2017/9/21) |
| 35 | Ammonium dichromate | 7789-09-5 | Ammonium dichromate is mainly used as an oxidising agent. Other known uses are in the manufacture of photosensitive screens and as mordant in the manufacture of textiles. Minor uses seem to comprise metal treatment and laboratory analytical agent. | ● (2017/9/21) |
| 36 | Potassium dichromate | 7778-50-9 | Potassium dichromate is used for chrome metal manufacturing and as corrosion inhibitor for treatment and coating of metals. It is further used as textile mordant, as laboratory analytical agent, for cleaning of laboratory glassware, in the manufacture of other reagents and as oxidising agent in photolithography. | ● (2017/9/21) |

[○:Before sunset / ●:After sunset];Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|-----------------------------|---|------------|--|---|
| 4 th SVHC December 15, 2010 | | | Potential uses | |
| 37 | Cobalt(II) sulphate | 10124-43-3 | Cobalt(II) sulphate is mainly used in the manufacture of other chemicals including pigments and possibly catalysts, driers. Further applications comprise surface treatments (such as electroplating), corrosion prevention, decolourisation (in glass, pottery), in batteries, animal food supplements and soil fertilisers. | |
| 38 | Cobalt(II) dinitrate | 10141-05-6 | Cobalt(II) dinitrate is mainly used in the manufacture of other chemicals including catalysts. Further applications may include surface treatment and in batteries. | |
| 39 | Cobalt(II) carbonate | 513-79-1 | Cobalt(II) carbonate is mainly used in the manufacture of catalysts. Minor uses may include as a feed additive, in the manufacture of other chemicals including pigments, and as an adhesive in ground coat frit. | |
| 40 | Cobalt(II) diacetate | 71-48-7 | Cobalt(II) diacetate is mainly used in the manufacture of catalysts or as a catalyst. Minor uses may include the manufacture of other chemicals including pigments, surface treatments, in alloys, dyes, rubber adhesion, and as a feed additive. | |
| 41 | 2-Methoxyethanol | 109-86-4 | 2-methoxyethanol is mainly used as a chemical intermediate. Further minor uses are as a solvent or a laboratory chemical. | |
| 42 | 2-Ethoxyethanol | 110-80-5 | 2-ethoxyethanol is mainly used as a chemical intermediate. Further minor uses are as a solvent or a laboratory chemical. | |
| 43 | Chromium trioxide | 1333-82-0 | Chromium trioxide is mainly used in metal finishing, such as electroplating (e.g. hard chrome and decorative plating), conversion coatings and brightening. It is also used as a fixing agent in waterborne wood preservatives. Minor uses are e.g. in the manufacture of pigments and paints, in catalyst and detergent manufacture, and as an oxidising agent. | ● (2017/9/21) |
| 44 | Acids generated from chromium trioxide and their oligomers | - | Acids generated from chromium trioxide and their oligomers are mainly used in metal finishing, such as electroplating (e.g. hard chrome and decorative plating), conversion coatings and brightening. It is also used as a fixing agent in waterborne wood preservatives. Minor uses are e.g. in the manufacture of pigments and paints, in catalyst and detergent manufacture, and as an oxidising agent. | ● (2017/9/21) |
| | Chromic acid | 7738-94-5 | | |
| | Dichromic acid | 13530-68-2 | | |
| | Oligomers of chromic acid and dichromic acid | - | | |
| 5 th SVHC June 20, 2011 | | | Potential uses | |
| 45 | 2-Ethoxyethyl acetate | 111-15-9 | No registration for 2-ethoxyethylacetate has been submitted to ECHA. Hence the substance seems not to be manufactured in or imported to the EU in quantities above 1 t/y. Main uses in the past were as solvent in coatings and in the chemical industry, but also as intermediate in the manufacture of cyanoacrylate adhesives. | |
| 46 | Strontium chromate (C.I.Pigment Yellow 32) | 7789-06-2 | Strontium chromate is mainly used as corrosion inhibitor in coating mixtures used in the aeronautic/aerospace sector, in the coil coating sector of steel and aluminium and in the vehicle coating sector. | ● (2019/1/22) |
| 47 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 68515-42-4 | No registration for DHNUP has been submitted to ECHA. Hence the substance seems not to be manufactured in or imported to the EU in quantities above 1 t/y. Main uses in the past were as plasticiser in PVC, foam, adhesives and coatings. | ● (2020/7/4) |
| 48 | Hydrazine | 7803-57-8 | Hydrazine is mainly used as intermediate in the manufacture of hydrazine derivatives, as a monomer in polymerisations, as a corrosion inhibitor in water treatment and for metal reduction and refining of chemicals. It is also used as a propellant for aerospace vehicles and as fuel in military (emergency) power units. | |
| | | 302-01-2 | | |
| 49 | 1-methyl-2-pyrrolidone | 872-50-4 | 1-methyl-2-pyrrolidone is mainly used as solvent in coatings, cleaning products, for electronic equipment manufacture, as well as in semiconductor industry, petrochemical processing, pharmaceuticals and agrochemicals. | |
| 50 | 1,2,3-Trichloropropane | 96-18-4 | 1,2,3-trichloropropane is mainly used as intermediate in the manufacture of chlorinated solvents and agricultural products. It is also used as monomer. In the past 1,2,3-trichloropropane was used as solvent, paint and varnish remover and as degreasing agent. | |
| 51 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich | 71888-89-6 | No registration for DIHP has been submitted to ECHA. Hence the substance seems not to be manufactured in or imported to the EU in quantities above 1 t/y. Main uses in the past were as plasticiser in PVC and in sealants, coatings and potentially printing inks. | ● (2020/7/4) |

[○:Before sunset / ●:After sunset];Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") /EU POPs Regulation (▲) |
|-----|---|------------|---|--|
| | 6 th December 19, 2011 | | Potential uses | |
| 52 | Lead styphnate | 15245-44-0 | Lead styphnate is mainly used as a primer for small calibre and rifle ammunition. Other common uses are in ammunition pyrotechnics, powder actuated devices and detonators for civilian use. | |
| 53 | Lead diazide, Lead azide | 13424-46-9 | Lead diazide is mainly used as initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic devices. | |
| 54 | Lead dipicrate | 6477-64-1 | No registration for lead dipicrate has been submitted to ECHA. The substance is an explosive like lead diazide and lead styphnate. It may be used in low amounts in detonator mixtures together with the two other mentioned lead compounds. | |
| 55 | Phenolphthalein | 77-09-8 | Phenolphthalein is mainly used as laboratory agent (pH indicator solutions). Minor uses are in pharmaceutical preparations and in some special applications (e.g. pH-indicator paper, disappearing inks). | |
| 56 | 2,2'-Dichloro-4,4'-methylenedianiline | 101-14-4 | 2,2'-Dichloro-4,4'-methylenedianiline is mainly used as curing agent in resins and in the production of polymer articles and also for manufacture of other substances. The substance may further be used in construction and arts. | ● (2017/11/22) |
| 57 | N,N-dimethylacetamide | 127-19-5 | N,N-dimethylacetamide is used as solvent, mainly in the manufacture of various substances and in the production of fibres for clothing and other applications. Also used as reagent, and in products such as industrial coatings, insulation paper, polyimide films, paint strippers and ink removers. | |
| 58 | Trilead diarsenate | 3687-31-8 | Trilead diarsenate is present in complex raw materials for manufacture of copper, lead and a range of precious metals. The trilead diarsenate contained in the raw materials is in the metallurgical refinement process transformed to calcium arsenate and diarsenic trioxide. Whereas most of the calcium arsenate appears to be disposed of as waste the diarsenic trioxide is used further. | |
| 59 | Calcium arsenate | 7778-44-1 | Calcium arsenate is present in complex raw materials (which themselves are by-products from metallurgical processes) that are used mainly for copper and lead refining. The substance is used to precipitate nickel from the molten metal and to manufacture diarsenic trioxide. However, most of the substance seems to be disposed of as waste. | |
| 60 | Arsenic acid | 7778-39-4 | Arsenic acid is mainly used to remove gas bubbles from ceramic glass melt (fining agent) and in the production of laminated printed circuit boards. To lesser extent the substance is also used in the manufacture of semiconductors and as laboratory agent. | ● (2017/8/22) |
| 61 | Bis(2-methoxyethyl) ether | 111-96-6 | Bis(2-methoxyethyl) ether is used primarily as a reaction solvent or process chemical in a wide variety of applications. It is also used as solvent for battery electrolytes, and possibly in other products such as sealants, adhesives, fuels and automotive care products. | ● (2017/8/22) |
| 62 | 1,2-Dichloroethane | 107-06-2 | 1,2-Dichloroethane is mainly used for manufacture of other substances. Minor uses as solvent in the chemical and pharmaceutical industry, as well as in laboratories. | ● (2017/11/22) |
| 63 | 4-(1,1,3,3-Tetramethylbutyl)phenol; 4-tert-octyl phenol | 140-66-9 | 4-(1,1,3,3-Tetramethylbutyl)phenol is mainly used in the manufacture of polymer preparations and of ethoxylate surfactants. It is further used as a component in adhesives, coatings, inks and rubber articles. | |
| 64 | 2-Methoxyaniline; o-Anisidine | 90-04-0 | 2-Methoxyaniline is mainly used in the manufacture of dyes for tattooing and coloration of paper, polymers and aluminium foil. | |
| 65 | Bis(2-methoxyethyl) phthalate | 117-82-8 | No registration for bis(2-methoxyethyl) phthalate has been submitted to ECHA. Hence, the substance seems not to be manufactured in or imported to the EU in quantities above 1 t/y. Main uses in the past were as plasticiser in polymeric materials and paints, lacquers and varnishes, including printing inks. | ● (2020/7/4) |
| 66 | Formaldehyde, oligomeric reaction products with aniline (technical MDA) | 25214-70-4 | Technical MDA is mainly used for manufacture of other substances. Minor uses are as ion exchange resins in nuclear power plants, as hardener for epoxy resins, e.g. for the production of rolls, pipes and moulds, and as well for adhesives. | ● (2017/8/22) |

[○:Before sunset / ●:After sunset];Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|-------------------------|--|-----------------------|---|---|
| 67 | Zirconia Aluminosilicate Refractory Ceramic Fibres. are fibres covered by index number 650-017-00-8 in Annex VI, part 3 table 3.1 of Regulation (EC) No.1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges. b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (1m). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight. | JAMP-SN0055 (JAMP-SN) | Refractory ceramic fibres are used for high-temperature insulation, almost exclusively in industrial applications (insulation of industrial furnaces and equipment, equipment for the automotive and aircraft/aerospace industry) and in fire protection (buildings and industrial process equipment). | |
| 68 | Aluminosilicate Refractory Ceramic Fibres. are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation. (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges. b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight. | JAMP-SN0007 (JAMP-SN) | Refractory ceramic fibres are used for high-temperature insulation, almost exclusively in industrial applications (insulation of industrial furnaces and equipment, equipment for the automotive and aircraft/aerospace industry) and in fire protection (buildings and industrial process equipment). | |
| 69 | Pentazinc chromate octahydroxide | 49663-84-5 | Pentazinc chromate octahydroxide is mainly used in coatings in the vehicle coating and aeronautic / aerospace sectors. | ● (2019/1/22) |
| 70 | Potassium hydroxyoctaoxodizincatedichromate | 11103-86-9 | Potassium hydroxyoctaoxodizincatedichromate is mainly used in coatings in the aeronautic/ aerospace, steel and aluminium coil coating and vehicle coating sectors. | ● (2019/1/22) |
| 71 | Dichromium tris(chromate) | 24613-89-6 | Dichromium tris(chromate) is mainly used in mixtures for metal surface treatment in the aeronautic/aerospace, steel and aluminium coating sectors. | ● (2019/1/22) |
| 7 th SVHC June 18, 2012 | | | | |
| | | | Potential uses | |
| 72 | 1,2-bis(2-methoxyethoxy)ethane (Synonym :Triethylene Glycol Dimethyl Ether, TEGDME; triglyme) | 112-49-2 | Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals. Minor use in brake fluids and repair of motor vehicles. | |
| 73 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals, including use as an electrolyte solvent in lithium batteries. | |
| 74 | Diboron trioxide | 1303-86-2 | Used in a multitude of applications, e.g., in glass and glass fibres, frits, ceramics, flame retardants, catalysts, industrial fluids, metallurgy, adhesives, inks/paints, film developers solutions, detergents and cleaners, biocides and insecticides. | |
| 75 | Formamide | 75-12-7 | Mainly used as an intermediate. Minor uses as solvent, as reagent chemical (in the pharmaceutical industry) and as laboratory chemical. The substance seems further to be used in the agrochemical industry and as a plasticiser. | |
| 76 | Lead(II) bis(methanesulfonate) | 17570-76-2 | Mainly used in plating (both electrolytic and electroless) processes for electronic components (such as printed circuit boards). | |
| 77 | TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) | 2451-62-9 | Mainly used as a hardener in resins and coatings; also used in inks for the printed circuit board industry, electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics. | |
| 78 | β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) | 59653-74-6 | Mainly used as a hardener in resins and coatings; also used in inks for the printed circuit board industry, electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics. | |
| 79 | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone) | 90-94-8 | Intermediate in the manufacture of triphenylmethane dyes and other substances. Further potential uses include as additive (photosensitiser) in dyes and pigments, in dry film products, as a process chemical in the production of electronic circuit boards, in research and development applications. | |

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In (), the sunset date of the substance subject to authorization / (Year / month)
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| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") /EU POPs Regulation (▲) |
|--------------------------------------|--|------------------|---|--|
| 80 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) | 101-61-1 | Intermediate in the manufacture of dyes and other substances. Used also as chemical reagent in research and development. | |
| 81 | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) | 2580-56-5 | Used in the production of inks, cleaners, and coatings, as well as for dyeing of paper, packaging, textiles, plastic products, and other types of articles. It is also used in diagnostic and analytical applications. | |
| 82 | [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) | 548-62-9 | Used mainly for paper colouring and inks supplied in printer cartridges and ball pens. Further uses include staining of dried plants, marker for increasing the visibility of liquids, staining in microbial and clinical laboratories. | |
| 83 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol | 561-41-1 | Used in the production of writing inks and potentially in the production of other inks, as well as for dyeing of a variety of materials. | |
| 84 | α, α -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) | 6786-83-0 | Mainly used in the production of printing and writing inks, for dyeing of paper and in mixtures such as windscreen washing agents. | |
| 8 th December 19, 2012 | | | Potential uses | |
| 85 | Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE) | 1163-19-5 | Flame retardant plastic and textile products. | (2019/3/1) EU POPs Regulation |
| 86 | Pentacosafuorotridecanoic acid | 72629-94-8 | Fluorine resin additives, surfactant. | |
| 87 | Tricosafuorododecanoic acid | 307-55-1 | Fluorine resin additives, surfactant. | |
| 88 | Henicosafuoroundecanoic acid | 2058-94-8 | Fluorine resin additives, surfactant. | |
| 89 | Heptacosafuorotetradecanoic acid | 376-06-7 | Fluorine resin additives, surfactant. | |
| 90 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | Rubber, synthetic resin of the foaming agent. | |
| 91 | Cyclohexane-1,2-dicarboxylic anhydride [1] | 85-42-7 | Plasticizer of the thermoplastic resin, Insect repellent, rust preventives. | |
| | cis-cyclohexane-1,2-dicarboxylic anhydride [2] | 13149-00-3 | | |
| | trans-cyclohexane-1,2-dicarboxylic anhydride [3] | 14166-21-3 | | |
| | [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]. | - | | |
| 92 | Hexahydromethylphthalic anhydride [1], | 25550-51-0 | Plasticizer of the thermoplastic resin, Insect repellent, rust preventives. | |
| | Hexahydro-4-methylphthalic anhydride [2], | 19438-60-9 | | |
| | Hexahydro-1-methylphthalic anhydride [3], | 48122-14-1 | | |
| | Hexahydro-3-methylphthalic anhydride [4] | 57110-29-9 | | |
| 93 | 4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] | - JAMP-SN0082 | Surfactant, modifiers material, Adhesives, paints, inks and rubber additive. | ● (2021/1/4) |
| | 4-Nonylphenol, branched | 84852-15-3 | | |
| | p-isononylphenol | 26543-97-5 | | |
| | p-nonylphenol; 4-Nonylphenol | 104-40-5 | | |
| | p-(1-methyloctyl)phenol; 4-(1-Methyloctyl)phenol | 17404-66-9 | | |
| | p-(1,1-dimethylheptyl)phenol; 4-(1,1-dimethylheptyl)phenol | 30784-30-6 | | |
| | 4-(1-ethyl-1-methylhexyl)phenol | 52427-13-1 | | |
| | 4-(1-ethyl-1,3-dimethylpentyl)phenol | 186825-36-5 | | |
| 4-(1-ethyl-1,4-dimethylpentyl)phenol | 142731-63-3 | | | |
| 94 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues] | - JAMP-SN0081 | emulsifier, intermediate. | ● (2021/1/4) |
| | 2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethanol | 2315-67-5 | | |
| | 2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethanol | 2315-61-9 | | |
| | Polyethylenglycol p-(1,1,3,3-tetramethylbutyl)phenylether | 9002-93-1 | | |
| | 20-[4-(1,1,3,3-tetramethylbutyl)phenoxy]-3,6,9,12,15,18-hexaoxaicosan-1-ol | 2497-59-8 | | |

[○:Before sunset / ●:After sunset]; Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|-----|--|-------------|--|---|
| 95 | Methoxyacetic acid | 625-45-6 | Intermediates of agricultural chemicals and insecticides, disinfectants, Rust preventive products. | |
| 96 | N,N-dimethylformamide | 68-12-2 | Solvent (for urethane-based synthetic leather, dye intermediate, for agricultural chemicals, pharmaceutical synthesis, for various polymers, for special ink, textile printing). | |
| 97 | Dibutyltin dichloride (DBTC) | 683-18-1 | PVC stabilizer intermediate, catalyst, rubber additive. | |
| 98 | Lead monoxide (Lead oxide) | 1317-36-8 | Inorganic pigments, PVC stabilizers material, solid lubricant, synthetic rubber accelerators, glass raw materials, batteries, | |
| 99 | Orange lead (Lead tetroxide) | 1314-41-6 | Paints and glass raw materials, battery. | |
| 100 | Lead bis(tetrafluoroborate) | 13814-96-5 | Tin plating drugs, solder plating drugs. | |
| 101 | Trilead bis(carbonate)dihydroxide | 1319-46-6 | Ceramics, paint pigments, such as electronic materials raw materials. | |
| 102 | Lead titanium trioxide | 12060-00-3 | Semiconductor raw materials. | |
| 103 | Lead titanium zirconium oxide | 12626-81-2 | Semiconductor raw materials. | |
| 104 | Silicic acid, lead salt | 11120-22-2 | Pigment, paint drying agent, glass raw materials. | |
| 105 | Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped | 68784-75-8 | Valve lamp coating | |
| 106 | 1-bromopropane (n-propyl bromide) | 106-94-5 | Cleaning and degreasing. | ● (2020/7/4) |
| 107 | Methyloxirane (Propylene oxide) | 75-56-9 | Polyester resins, urethane resin raw material, Surfactant. | |
| 108 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0 | Plasticizer. | ● (2020/7/4) |
| 109 | Diisopentylphthalate (DIPP) | 605-50-5 | Plasticizer. | ● (2020/7/4) |
| 110 | N-pentyl-isopentylphthalate | 776297-69-9 | Plasticizer. | ● (2020/7/4) |
| 111 | 1,2-diethoxyethane | 629-14-1 | A solvent such as nitrocellulose, rubber, resin. | |
| 112 | Acetic acid, lead salt, basic | 51404-69-4 | Dyes, coating agents, fillers. | |
| 113 | Lead oxide sulfate | 12036-76-9 | PVC additive. | |
| 114 | Lead dioxide phthalate; Lead, [1,2-benzenedicarboxylato(2-)]dioxotri- | 69011-06-9 | PVC additive. | |
| 115 | Dioxobis(stearato)trilead | 12578-12-0 | PVC additive. | |
| 116 | Fatty acids, C16-18, lead salts | 91031-62-8 | PVC additive. | |
| 117 | Lead cyanamate | 20837-86-9 | Rust preventive, pigment. | |
| 118 | Lead dinitrate | 10099-74-8 | Lead compounds, dyes, pigments. | |
| 119 | Pentalead tetraoxide sulphate | 12065-90-6 | PVC additive, Battery. | |
| 120 | Pyrochlore, antimony lead yellow | 8012-00-8 | Coatings, paints, | |
| 121 | Sulfurous acid, lead salt, dibasic | 62229-08-7 | PVC additives, resin. | |
| 122 | Tetraethyllead | 78-00-2 | Antiknock agent, Fuel additives. | |
| 123 | Tetralead trioxide sulphate | 12202-17-4 | PVC additive, Battery. | |
| 124 | Trilead dioxide phosphonate | 12141-20-7 | PVC additive. | |
| 125 | Furan | 110-00-9 | Synthetic resin raw materials, organic synthesis raw materials, solvents, cleaning agents. | |
| 126 | Diethyl sulphate | 64-67-5 | Ethyl agent, intermediate, Mitigation of dehydrating agent, | |
| 127 | Dimethyl sulphate | 77-78-1 | Pharmaceuticals (raw materials), Organic synthesis of methylating agent, | |
| 128 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | - | |
| 129 | Dinoseb (6-sec-butyl-2,4-dinitrophenol) | 88-85-7 | Agrochemical intermediate, | |
| 130 | 4,4'-methylenedi-o-toluidine | 838-88-0 | Epoxy resin, Urethane resin hardener, | |
| 131 | 4,4'-oxydianiline and its salts | 101-80-4 | Organic synthesis of methylating agent, Polyimide resin raw material, | |
| 132 | 4-aminoazobenzene | 60-09-3 | Dye, Pigment. | |
| 133 | 4-methyl-m-phenylenediamine (toluene-2,4-diamine) | 95-80-7 | Polyurethane resin raw material, dye, | |
| 134 | 6-methoxy-m-toluidine (p-cresidine) | 120-71-8 | Dye raw materials, Intermediate, | |
| 135 | Biphenyl-4-ylamine | 92-67-1 | - | |
| 136 | o-aminoazotoluene [(4-o-tolylazo-o-toluidine)] | 97-56-3 | Dye, | |
| 137 | o-toluidine | 95-53-4 | Intermediate raw material of dyes and pigments, Curing agent for epoxy resin raw materials, Azo-based and sulfide-based dye intermediate, | |
| 138 | N-methylacetamide; Acetamide, N-methyl- | 79-16-3 | Pharmaceutical intermediates. | |

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In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|--|---|-------------|--|---|
| 9 th SVHC June 20, 2013 | | | Potential uses | |
| 139 | Cadmium | 7440-43-9 | Ni-Cd battery, pigment, stabilizer, plating. | |
| 140 | Cadmium oxide | 1306-19-0 | Ni-Cd battery, plating, alloy. | |
| 141 | Dipentyl phthalate | 131-18-0 | Plasticizer. | ● (2020/7/4) |
| 142 | 4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxyd covering also UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations | JAMP-SN0083 | Industrial and consumer paint, Ethoxylate at the time of emulsion polymerization (emulsifier). | |
| | Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy- | 26027-38-3 | | |
| | 2-[2-[2-[2-(4-Nonylphenoxy)ethoxy]ethoxy]ethoxy]ethanol | 7311-27-5 | | |
| | 2-[2-(4-Nonylphenoxy)ethoxy]ethanol | 20427-84-3 | | |
| | 17-(4-Nonylphenoxy)-3,6,9,12,15-pentaoxaheptadecan-1-ol | 34166-38-6 | | |
| | 20-(4-Nonylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol | 27942-27-4 | | |
| | 26-(4-Nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol | 14409-72-4 | | |
| | Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branchcd, 4-Nonylphenol, branched, | 127087-87-0 | | |
| Poly(oxy-1,2-ethanediyl), alpha-(isononylphenyl)-omega-hydroxy-; isononylphenol ethoxylate | 37205-87-1 | | | |
| 143 | Ammonium pentadecafluorooctanoate (APFO) | 3825-26-1 | Fluororesin, Reaction aid for fluorine rubber. | |
| 144 | perfluorooctanoic acid (PFOA) | 335-67-1 | Reaction aid for fluororesin (PTFE, Ethylene tetrafluoride, PVDF). | ▲ (2020/7/4) EU POPs Regulation |
| 10th SVHC December 26, 2013 | | | Potential uses | |
| 145 | Cadmium sulphide | 1306-23-6 | For production of cadmium compounds. | |
| 146 | | 1937-37-7 | Dye. | |
| 147 | Dihexyl phthalate | 84-75-3 | Plasticizer. | ○ (2023/2/27) |
| 148 | Imidazolidine-2-thione; (2-imidazoline-2-thiol) | 96-45-7 | • a vulcanisation agent. | |
| 149 | Trixylyl phosphate | 25155-23-1 | • as functional fluid (fire resistant fluids, hydraulic fluids, lubricants, lubricant additives, grease products, metal working fluid) and as flame retardant in the production of plastics. | ○ (2023/5/27) |
| 150 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-subphionate) (CI Direct Red 28) | 573-58-0 | Brownish-red powder; in water yellowish-red; in ethanol orange | |
| 151 | Lead di(acetate) | 301-04-2 | Coatings and paints, thinners, paint removers. Fillers, | |
| 11th SVHC June 16, 2014 | | | Potential uses. | |
| 152 | Cadmium sulphide | 68515-50-4 | • sealant/jointing agents • engine oil stabiliser • medical devices • general purpose PVC • adhesives and inks. | ○ (2023/2/27) |
| 153 | Cadmium chloride | 10108-64-2 | • Raw material for electrogalvanizing. • Raw material for electroplating. | |
| 154 | Dihexyl phthalate | 15120-21-5 | • bleaching agent in laundry detergents. • machine dishwashing products. | ○ (2023/5/27) |
| | Imidazolidine-2-thione; (2-imidazoline-2-thiol) | 11138-47-9 | | |
| | Perboric acid (HBO(O2)), sodium salt, monohydrate | 10332-33-9 | | |
| | Perboric acid (HBO(O2)), sodium salt, tetrahydrate | 10486-00-7 | | |
| 155 | Trixylyl phosphate | 7632-04-4 | • bleaching agent in laundry detergents and machine dishwashing products. | ○ (2023/5/27) |

[○: Before sunset / ●: After sunset]; Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲: Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|--|---|-------------|---|---|
| 12th December 17, 2014 | | | Potential uses | |
| 156 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentyphenol(UV-328) | 25973-55-1 | <ul style="list-style-type: none"> •UV-stabilisers since they can absorb the full spectrum of UV light:UV-A(320-400nm)and UV-B(280-320nm) •Light stabilizing in coatings,ABS resin,epoxy resin,fiber resin,propylene and polyvinyl chloride. | ○ (2023/11/27) |
| 157 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320) | 3846-71-7 | <ul style="list-style-type: none"> •UV-stabilisers since they can absorb the full spectrum of UV light:UV-A(320-400nm)and UV-B(280-320nm) •The most important UV-absorbers,especially for transparent plastic materials. •Uvstabiliser for plastics,polyuretanen and rubber. | ○ (2023/11/27) |
| 158 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE) | 15571-58-1 | <ul style="list-style-type: none"> •Heat stabiliser in the production of rigid and to a minor extent of plasticised PVC. •processing of polymers containing DOTE. | |
| 159 | Cadmium fluoride | 7790-79-6 | <ul style="list-style-type: none"> •For manufacturing of glass,in nuclear reactor control,for electric brusher,high-temperature dry-film lubricant,optical applications,and as starting material for crystals for laser. •Active component in fluxes for soldering of aluminium and its alloys. | |
| 160 | Cadmium sulphate | 10124-36-4 | <ul style="list-style-type: none"> •Raw material for metal surface coating and for restoring of lead acid batteries •Raw material for production of inorganic cadmium compounds. •Laboratory reagent •Battery restoring •Metal electroplating | |
| | | 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) | JAMP-SN0084 | <ul style="list-style-type: none"> •The production of PVC as heat stabiliser •Heat stabiliser in the production of rigid and to a minor extent of plasticised PVC. | |
| - | Bis (2-ethylhexyl)phthalate (DEHP) | 117-81-7 | (No.9 Previous : Uses as Plasticiser in polymers, mainly flexible PVC.) (1st SVHC) | |
| 13th SVHC June 15, 2015 | | | Potential uses | |
| 162 | 1,2-benzenedicarboxylic acid,di-C6-10-alkyl esters;1,2-benzenedicarboxylic acid,mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate(CasNo.201-559-5) | 68515-51-5 | adhesives,lubricants,coatings,building material,cable compounding,polymer foils,PVC compounds and artist supply. | ○ (2023/2/27) |
| | | 68648-93-1 | | |
| 163 | 5-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][covering any of the individual stereoisomers of [1] and [2] or any combination thereof] | JAMP-SN0085 | Information on uses is confidential and therefore it cannot be provided. | ○ (2023/8/27) |
| | Reaction mass of 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5methyl-1,3-dioxane;5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5methyl-1,3-dioxane | | | |
| | Reaction mass of 5-[(2R)-butan-2-yl]-2-[(1R,2R)-2,4-dimethylcyclohex3-en-1-yl]-5-methyl-1,3-dioxane; | | | |
| | 5-[(2R)-butan-2-yl]-2-[(1R,6R)-4,6-dimethylcyclohex3-en-1-yl]-5-methyl-1,3-dioxane;5-[(2S)-butan-2-yl]-2-[(1R,2R)-2,4-dimethylcyclohex3-en-1-yl]-5-methyl-1,3-dioxane; | | | |
| | ;5-[(2S)-butan-2-yl]-2-[(1S,2R)-2,4-dimethylcyclohex3-en-1-yl]-5-methyl-1,3-dioxane;5-[(2S)-butan-2-yl]-2-[(1S,6R)-4,6-dimethylcyclohex3-en-1-yl]-5-methyl-1,3-dioxane | | | |
| 1,3-Dioxane, 2-(2,4-dimethyl-3-cyclohexen-1-yl)-5-methyl-5-(1-methylpropyl)- | 117933-89-8 | | | |

[○:Before sunset / ●:After sunset];Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") /EU POPs Regulation (▲) |
|-----------------------------|---|-------------|--|--|
| 163 | 1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-rel- | 343934-04-3 | Information on uses is confidential and therefore it cannot be provided. | |
| | 1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-rel- | 343934-05-4 | | |
| | 1,3-Dioxane, 2-[(1S,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis- | 676367-02-5 | | |
| | 1,3-Dioxane, 2-[(1S,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis- | 676367-03-6 | | |
| | 1,3-Dioxane, 2-[(1R,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis | 676367-04-7 | | |
| | 1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis- | 676367-05-8 | | |
| | 1,3-Dioxane, 2-[(1S,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans | 676367-06-9 | | |
| | 1,3-Dioxane, 2-[(1S,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans- | 676367-07-0 | | |
| | 1,3-Dioxane, 2-[(1R,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans- | 676367-08-1 | | |
| | 1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans- | 676367-09-2 | | |
| | 1,3-Dioxane, 2-(2,4-dimethyl-3-cyclohexen-1-yl)-5-methyl-5-(1-methylpropyl)- | 186309-28-4 | | |
| 14th SVHC December 17, 2015 | | | Potential uses | |
| 164 | 1,3-propanesultone | 1120-71-4 | electrolyte fluid of lithium ion batteries. | |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) | 3864-99-1 | UV-protection agents in coatings, plastics, rubber, polyurethanes and cosmetics. | ○ (2023/11/27) |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 36437-37-3 | production of chemicals and intermediate for further chemical processing. | ○ (2023/11/27) |
| 167 | Nitrobenzene | 98-95-3 | production of chemicals and intermediate for further chemical processing. | |
| 168 | Perfluorononan-1-oic-acid and its sodium and ammonium salts | 375-95-1 | a processing aid for fluoropolymer manufacture, and also as a lubricating oil additive, surfactant for fire extinguishers, cleaning agent, textile antifouling finishing agent, polishing surfactant, waterproofing agents and in liquid crystal display panels. | |
| | | 21049-39-8 | | |
| | | 4149-60-4 | | |
| 15th SVHC June 20, 2016 | | | Potential uses | |
| 169 | Benzo[def]chrysene | 50-32-8 | Rubber, Plasticizer, Coloring pigments of plastic, adhesive Paints, | |
| 16th SVHC December 20, 2016 | | | Potential uses | |
| 170 | 4,4'-isopropylidenediphenol (bisphenol A) | 80-05-7 | Uses as intermediate: use of bisphenol A in thermal paper- use of articles made of PVC Industrial use of bisphenol A as antioxidant for processing PVC. | |
| | | | Uses as manufacturing of polycarbonate, epoxy resin hardeners, antioxidant for processing PVC and manufacturing of thermal paper. (Re-listing in 17th SVHC) | |
| | | | Uses as endocrine disruptor that have influence for environment. (Re-listing in 18th SVHC) | |
| 171 | 4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] | JAMP-SN0089 | industrial, professional and consumer uses in lubricants and greases in vehicles or machinery. | |

[○:Before sunset / ●:After sunset]:Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") / EU POPs Regulation (▲) |
|----------------------------|---|-------------|--|---|
| 172 | Ammonium nonadecafluorodecanoate | 3108-42-7 | Lubricant, wetting agent, plasticiser and corrosion inhibitor. | |
| | Nonadecafluorodecanoic acid (PFDA) | 335-76-2 | | |
| | Decanoic acid, nonadecafluoro, sodium salts | 3830-45-3 | | |
| | PFOA and its sodium salts, Ammonium salts | - | | |
| 173 | p-(1,1-dimethylpropyl)phenol | 80-46-6 | industrial use as intermediate in the production of perfumes and fragrances industrial formulation of adhesives formulation and application of coatings, printing inks, paints as monomer in production of polymers (phenolic resins) end use of adhesives industrial application of coatings or inks. | |
| 17th SVHC July 7, 2017 | | | Potential uses | |
| - | Dibutyl phthalate (DBP) | 84-74-2 | (No.3 Previous: Uses as Plasticiser in polymers, mainly flexible PVC.) (Re-listing in 1st SVHC) | |
| - | Bis (2-ethylhexyl)phthalate (DEHP) | 117-81-7 | (No.9 Previous: Uses as Plasticiser in polymers, mainly flexible PVC.) (Re-listing in 1st and 12th SVHC) | |
| - | Benzyl butyl phthalate (BBP) | 85-68-7 | (No.14 Previous: Uses as Adhesives, Sealant agent and Coating Products.) (Re-listing in 1st SVHC) | |
| - | Diisobutyl phthalate (DIBP) | 84-69-5 | (No.23 Previous: Uses as Coating Products, Filling agent, Putty, Stucco molding clay and Polymers. (Re-listing in 2nd SVHC) | |
| - | 4,4'-isopropylidenediphenol (bisphenol A) | 80-05-7 | (No.170 Previous: Uses as manufacturing of polycarbonate, epoxy resin hardeners, antioxidant for processing PVC and manufacturing of thermal paper. (Re-listing in 16th SVHC) | |
| 174 | Perfluorohexane-1- sulphonic acid and its salts | JAMP-SN0090 | Uses as Manufacturing of etching Agent, Semiconductor Resist and picture's film for business. | |
| | Perfluorohexane-1- sulphonic acid | 355-46-4 | | |
| 18th SVHC January 15, 2018 | | | Potential uses | |
| - | 4,4'-isopropylidenediphenol (bisphenol A) | 80-05-7 | (No.170 Previous: Uses as endocrine disruptor that have influence for environment. (Re-listing in 16th and 17th SVHC) | |
| 175 | 1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.0.2.13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof] | - | Uses as a non-plasticising flame retardant, used in adhesives and sealants and in binding agents. | |
| 176 | Cadmium nitrate | 10325-94-7 | Uses in laboratory chemicals and for the manufacture of glass, porcelain and ceramic products. | |
| 177 | Cadmium carbonate | 513-78-0 | Uses as a pH regulator and in water treatment products, laboratory chemicals, cosmetics and personal care products. | |
| 178 | Cadmium hydroxide | 21041-95-2 | Uses in laboratory chemicals and for the manufacture of electrical, electronic and optical equipment. | |
| 179 | Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥ 0.1% w/w 4-heptylphenol, branched and linear] | - | Uses as a lubricant additive in lubricants and greases. | |
| 180 | Benz[a]anthracene | 56-55-3 | Not registered under REACH. Normally not produced intentionally but rather occurs as a constituent or impurity in other substances. | |
| 181 | Chrysene | 218-01-9 | Not registered under REACH. Normally not produced intentionally but rather occurs as a constituent or impurity in other substances. | |
| 19th SVHC June 27, 2018 | | | Potential uses | |
| 182 | Octamethylcyclotetrasiloxane | 556-67-2 | Used in washing and cleaning products, polishes and waxes and cosmetics and personal care products. | |
| 183 | Decamethylcyclopentasiloxane | 541-02-6 | Used in washing and cleaning products, polishes and waxes, cosmetics and personal care products, textile treatment products and dyes. | |
| 184 | Dodecamethylcyclohexasiloxane | 540-97-6 | Used in washing and cleaning products, polishes and waxes, cosmetics and personal care products. | |
| 185 | Lead | 7439-92-1 | Used in metals, welding and soldering products, metal surface treatment products, and polymers. | |
| 186 | Disodium octaborate | 12008-41-2 | Used in anti-freeze products, heat transfer fluids, lubricants and greases, and washing and cleaning products. | |
| 187 | Benzo[ghi]perylene | 191-24-2 | Not registered under REACH. Normally not produced intentionally but rather occurs as a constituent or impurity in other substances. | |
| 188 | Terphenyl, hydrogenated | 61788-32-7 | Used as a plastic additive, solvent, in coatings/inks, in adhesives and sealants, and heat transfer fluids. | |
| 189 | Ethylenediamine | 107-15-3 | Used in adhesives and sealants, coating products, fillers, putties, plasters, modelling clay, pH regulators and water treatment products. | |
| 190 | Benzene-1,2,4-tricarboxylic acid 1,2 anhydride | 552-30-7 | Used in the manufacture of esters and polymers. | |
| 191 | Dicyclohexyl phthalate | 84-61-7 | Used in plastisol, PVC, rubber and plastic articles. A further use is also as a phlegmatizer and dispersing agent for formulations of organic peroxides. | |

[○:Before sunset / ●:After sunset]; Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

| No. | Substance Name | CAS No. | Potential uses | Annex XIV (Substances subject to authorization "○", "●") /EU POPs Regulation (▲) |
|---|--|-------------|---|--|
| 20th SVHC January 15, 2019 | | | | |
| 192 | 2,2-bis(4'-hydroxyphenyl)-4-methylpentane | 6807-17-6 | No active registrations under REACH. | |
| 193 | Benzo[k]fluoranthene | 207-08-9 | Not yet registered under REACH. | |
| 194 | Fluoranthene | 206-44-0 | Not yet registered under REACH. | |
| 195 | Phenanthrene | 85-01-8 | Not yet registered under REACH. | |
| 196 | Pyrene | 129-00-0 | Used as a transported intermediate for the manufacture of fine chemicals. | |
| 197 | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one | 15087-24-8 | Not yet registered under REACH | |
| 21th SVHC July 16, 2019 | | | | |
| 198 | 2-methoxyethyl acetate | 110-49-6 | Not yet registered under REACH. | |
| 199 | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) | - | Primarily used as an antioxidant to stabilise polymers. | |
| 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) | - | Processing aid in the production of fluorinated polymers. | |
| 201 | 4-tert-butylphenol | 98-54-4 | Used in coating products, polymers, adhesives, sealants and for the synthesis of other substances. | |
| 22th SVHC January 16, 2020 | | | | |
| 202 | Diisohexyl phthalate | 119313-12-1 | Not yet registered under REACH. | |
| 203 | 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 71868-10-5 | The substance is used in polymer production | |
| 204 | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71850-09-4 | The substance is used in polymer production | |
| 205 | Perfluorobutane sulfonic acid (PFBS) and its salts | - | Used as a catalyst/ additive/reactant in polymer manufacture and in chemical synthesis. It is also used as a flame retardant in polycarbonate (for electronic equipment). | |
| 23th SVHC June 25, 2020 | | | | |
| 206 | 1-vinylimidazole | 1072-63-5 | In formulations and as a monomer in the production of polymers | |
| 207 | 2-methylimidazole | 693-98-1 | As a catalyst in the production of coating products | |
| 208 | Butyl 4-hydroxybenzoate(Butylparaben) | 94-26-8 | Cosmetics, personal care products and pharmaceuticals | |
| 209 | Dibutylbis(pentane-2,4-dionato-O,O')tin | 22673-19-4 | As a catalyst and as an additive in the production of plastics | |
| 24th SVHC January 19, 2021 | | | | |
| 210 | Bis(2-(2-methoxyethoxy)ethyl)ether | 143-24-8 | Solvent/extraction agent. | |
| 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 | - | Not registered under REACH as a group of substances. However, one of the three group members (Diocetyl tin dilaurate) is registered. | |
| | Stannane, dioctyl-, bis(coco acyloxy) derivs. | 91648-39-4 | The mono-constituent form of the substance (dioctyl tin dilaurate) is used as an additive in the production of plastics and rubber tyres. | |
| | Diocetyl tin dilaurate | 3648-18-8 | | |
| <p>Notes: *The Number of Table EC-810-05-03 are unique numbers for identification the quantity of chemical substances. When it is announced the chemical substances in public more than once, it would not be created the new Number again.</p> <p>*The "▲" mark in the column of "Annex XIV (Substances subject to authorization)" indicates restricted substances of EU POPs Regulation. After the stated date, use in restricted applications is prohibited.</p> <p>For details on the restricted applications of each substance, please refer to "Table EC-810-05-01" and "Table EC-810-05-02".</p> | | | | |

[○:Before sunset / ●:After sunset];Annex XIV (Substances subject to authorization)
In (), the sunset date of the substance subject to authorization / (Year / month)
[▲:Restricted substances (Annex XVII) of EU POPs regulation]

Table EC-810-05-04

List of environmental management substances shall be prohibited by Japanese laws and regulations

Obligated to correspond regardless of prohibition of use by various environmental regulations of Japan and list of chemical substances of NITTO KOHKI (NK-02).

* See the laws and regulations for details.

1. Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Law).

Chemical substances specified in class 1. (33 chemical substance groups prohibited.)

| No | Substance Name | Cas No. |
|------------|--|-------------|
| 1) | Polychlorinated Biphenyls (PCB) | 1336-36-3 |
| 2) | Polychlorinated Naphthalenes (with more than 2 chlorine atoms) | 1321-65-9 |
| 3) | Hexachlorobenzene (HCB) | 118-74-1 |
| 4) | Aldrin | 309-00-2 |
| 5) | Dieldrin | 60-57-1 |
| 6) | Endrin | 72-20-8 |
| 7) | DDT | 50-29-3 |
| 8) | Chlordanes | 57-74-9 |
| | | 12789-03-6 |
| | | 27304-13-8 |
| 9) | Bis (tributyltin) Oxide (TBTO) | 56-35-9 |
| 10) | N,N'- ditolyl - p - phenylenediamine N - tolyl - N'- xylyl - p - phenylenediamine N,N' - dixylyl - p - phenylenediamine | 27417-40-9 |
| | | 28726-30-9 |
| | | 70290-05-0 |
| 11) | 2,4,6 - tri - tert - butylphenol | 732-26-3 |
| 12) | Toxaphene | 8001-35-2 |
| 13) | Mirex | 2385-85-5 |
| 14) | Kelthane | 115-32-2 |
| 15) | Hexachlorobutadiene | 87-68-3 |
| 16) | 2- (2' - Hydroxy - 3', 5'- di - t - butylphenyl) benzotriazole | 3846-71-7 |
| 17) | Perfluoro(octane-1-sulfonic acid) (Synonym: PFOS) or its salts | 1763-23-1 |
| 18) | Perfluoro(octane-1-sulfonyl) fluoride (Synonym: PFOSF) | 307-35-7 |
| 19) | Pentachlorobenzene | 608-93-5 |
| 20) | α - Hexachlorocyclohexane | 319-84-6 |
| 21) | β - Hexachlorocyclohexane | 319-85-7 |
| 22) | γ - Hexachlorocyclohexane | 58-89-9 |
| 23) | Chlordecone | 143-50-0 |
| 24) | Polybrominatedbiphenyl | 36355-01-8 |
| 25) | Tetrabromodiphenylether | 40088-47-9 |
| 26) | Pentabromodiphenylether | 32534-81-9 |
| 27) | Hexabromodiphenyl ether | 68631-49-2 |
| 28) | 2,2',3,3,4,5',6-Heptabromodipheny ether | 446255-22-7 |
| 29) | Endosulfan, Benzoepin | 115-29-7 |
| 30) | Hexabromocyclododecane (HBCDD) | 25637-99-4 |
| 31) | Pentachlorophenol(PCP) and its salts (Pentachlorophenolate) | 87-86-5 |
| | | 131-52-2 |
| | | 27735-63-3 |
| | | 27735-64-4 |
| | | 2917-31-9 |
| 32) | Decabromodiphenyl oxide | 1163-19-5 |
| 33) | Chlorinated paraffins (Short-Chain Chlorinated Paraffins (SCCPs)) (C10 - C13, and Chlorinated ratio is over 48 weight %) | 18993-26-5 |
| | | 36312-81-9 |
| | | 219697-10-6 |
| | | 219697-11-7 |
| | | 221174-07-8 |
| | | 276673-33-7 |
| | | 601523-20-0 |
| | | 601523-25-5 |
| | | 85535-84-8 |
| | | 68920-70-7 |
| | | 71011-12-6 |
| | | 85536-22-7 |
| 85681-73-8 | | |
| | | 108171-26-2 |

*** The typical isomer which is contained in the octabromodiphenyl ether for the commerce Substance name and CASNo. Is a typical example.

2. Industrial safety and health law.**(8 chemical substance groups prohibited to be manufactured.)**

| No | Substance Name | Cas No. |
|----|--|--------------|
| 1) | Yellow phosphorous | 12185-10-3 |
| 2) | Benzidine and its salts * | 92-87-5,etc. |
| 3) | 4-Aminodiphenyl and its salts * | 92-67-1 |
| 4) | Asbestos | * |
| 5) | 4-Nitorodiphenyl and its salts * | 92-93-3 |
| 6) | Bis (chloromethyl) ether | 542-88-1 |
| 7) | β -naphthylamine and its salts * | 91-59-8,etc. |
| 8) | Benzene | 71-43-2 |

*Azo compound and aromatic-amines

*Refer the subject No. 20 of Table EC-810-05-02 about more details.

3. The Law Concerning the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (9 chemical substance groups)

| No | Substance Name | Cas No. |
|----|-----------------------|----------------|
| 1) | Specified freons | 76-13-1,etc. |
| 2) | Halons | 75-63-8,etc. |
| 3) | Other freons | * |
| 4) | Carbon tetrachloride | 56-23-5 |
| 5) | 1.1.1-Trichloroethane | 71-55-6 |
| 6) | HBFCs | 1868-53-7,etc. |
| 7) | Bromochloromethane | 74-97-5 |
| 8) | Methylbromide | 74-83-9 |
| 9) | HCFCs | 75-43-4,etc. |

*Refer the subject No. 35 of Table EC-810-05-02 about more details.

4. Poisonous and Deleterious Substances Control Act (9 chemical substance groups)

| No | Substance Name | Cas No. |
|----|-------------------------|------------|
| 1) | Specified freons | 152-16-9 |
| 2) | Tetra-alkyl lead | 75-74-1 |
| 3) | Parathion | 56-38-2 |
| 4) | Carbon tetrachloride | 8022-00-2 |
| 5) | 1.1.1-Trichloroethane | 13171-21-6 |
| 6) | HBFCs | 298-00-0 |
| 7) | Tetraethylpyrophosphate | 107-49-3 |
| 8) | Methylbromide | 144-49-0 |
| 9) | HCFCs | 640-19-7 |

Table EC-810-05-05 The list of definition of terms

Revised : April 1, 2021

| | Terms | Definition |
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| 1 | chemical product | Products containing chemically synthesized substances or products produced by chemical processes. |
| 2 | chemical substance | "Chemical substance" refers to an element and chemical compound existing naturally or obtained during any manufacturing process. |
| 3 | US/CA Proposition 65 Case law | State law in California, USA. Laws and regulations with restrictions on the use of harmful chemicals. Law enacted in 1986 for safe drinking water and toxic substances. |
| 4 | EMS(Environment Management System) | International standard for environmental management system established by ISO (International Organization for Standardization). |
| 5 | controlled substances | <ul style="list-style-type: none"> • Among the chemical substances contained in the procured products, those determined by Nitto Koki as having negative effects on Japanese and foreign laws and regulations, customer requirements, global environment and human body (hereinafter referred to as "substance") It refers to the chemical substance managed by Nitto Kouki in section 3-3. • NK-02 refers to a chemical substance that Nitto Koki prohibits its contain in products. |
| 6 | controlled value | A value managed so as not to exceed the threshold defined by environmental laws and regulations, etc. |
| 7 | contained | <p>Chemical substances are contained in the parts and materials that make up the product. (including the case where such chemical substance is unintentionally adhered to and remaining on the products in manufacturing processes and known from supply chain* information).</p> <p>*supply chain....It refers to the process until the final consumer receives the product since the raw material of it was produced.</p> |
| 8 | homogeneous material | The RoHS Directive and WEEE Directive FAQ issued by the European Commission are adopted for the definition. "Homogenous material" refers to a material that cannot be mechanically separated into different materials. The term "homogenous" signifies "a component that is completely homogeneous." Examples of "homogenous material" are individual types of plastic, ceramic, glass, metal, alloy, paper, unmounted substrate, resin, and coating. (Homogenous material property = Homogenous material) |
| 9 | calculated value | Calculated and derived value. |
| 10 | Japanese laws and regulations | <p>The following are representative of the Japanese laws and regulations.</p> <ul style="list-style-type: none"> • Law on Chemical Substitution • The industrial safety and health law • The Law Concerning the Protection of the Ozone Layer • Poisonous and deleterious substance control law • Others |
| 11 | mixture | "Mixture" refers to a substance that is made up of a mixture of two or more chemical substances Examples: paint, ink, alloy ingot, solder, resin pellet, etc. |
| 12 | material | "Material" refers to a raw material or component that can be used without changing the original property to create an article. |
| 13 | threshold level | "Threshold level" are the permitted concentration levels of homogeneous materials in procured items. |
| 14 | measurement value | A value obtained by actual measurement. |
| 15 | article | <p>Products, parts or articles molded to a specific shape or design.</p> <p>It refers that the chemical composition does not change in the end use.</p> <p>Examples: Parts delivered to NITTO KOHKI, component parts purchased by a supplier to manufacture each part, metal plate, gear wheel, integrated circuit, transportation equipment, etc.</p> |
| 16 | management system of chemical substances contained in products | <p>A system for managing information on chemical substances contained in products.</p> <p>Organizations that established and operated systems are highly reliable in chemical substances management.</p> |
| 17 | Guidelines for the Management of Chemical Substances in Products | <p>This refers to common product substance management requirements so that product substance management can be reliably and efficiently practiced throughout the entire process from raw material production to product supply.</p> <p>That is issued and updated from JAMP.</p> |
| 18 | detergents | Chemicals that clean the surface of substances. |

Table EC-810-05-05 The list of definition of terms

Revised : April 1, 2021

| | Terms | Definition |
|----|-------------------------------------|---|
| 19 | contracted out | <ul style="list-style-type: none"> • 'Stipulated by RoHS Directive, etc. and an approval of exclusion of prohibition on product content when it is difficult to change to an alternative material or alternative part in terms of performance and function of the product. This exclusion is reviewed periodically or when necessary in light of the advancement in scientific technology in which items for exclusion will be removed or added accordingly. • Exemption from product inclusion is permitted in our judgment in cases where it is difficult to change the product performance and functions, and economically, to alternative materials and parts within the scope of compliance with Japanese and overseas laws and regulations and customer requirements agreed upon by NITTO KOHKI. <p>This exclusion would be reviewed periodically or when necessary in light of the advancement in scientific technology and industry trends in which items for exclusion will be removed or added accordingly.</p> |
| 20 | EU Battery Directive | <p>There are laws and regulations regarding batteries distributed in Europe and regulations on the management of chemical substances contained in batteries.</p> <p>Under the EU Battery Directive, batteries that fall under the following cannot be put on the market.</p> <p>(1) All batteries and storage: Mercury content exceeds 0.0005% by weight (2) Storage battery and charging: Cadmium content exceeding 0.002% by weight</p> |
| 21 | Top management | <p>A manager or Senior management who directs and manages a company (organization). In general, the highest ranking target organization such as the president or plant manager. Refers to the person in charge of operating the management system.</p> |
| 22 | timing of prohibition | <p>"Timing of prohibition" refers to the time when the delivery of parts or materials to NITTO KOHKI is prohibited. (Applies to Control level B: Substances to be banned. It is "Level C: Containment controlled substances" up to the timing of prohibition but turns to "Level A: Banned substances" when the timing is exceeded.) Please cooperate to correspond to the alternative part or material by obeying the timing to prohibition.</p> |
| 23 | NITTO KOHKI CO.,LTD. | <p>NITTO KOHKI in this document refers to the NITTO KOHKI Group. The breakdown of the group is as follows.</p> <ul style="list-style-type: none"> • NITTO KOHKI CO.,LTD. <Japan > • TOCHIGI NITTO KOHKI CO., LTD. <Japan > • SHIRAKAWA NITTO KOHKI CO., LTD. <Japan > • MEDOTECH CO., LTD. <Japan > • NITTO KOHKI INDUSTRY (THAILAND) CO.,LTD. < Thailand > • NITTO KOHKI AUSTRALIA MFG PTY.,LTD. < Australia > |
| 24 | secondary materials | <p>In the manufacturing industry, it refers to items that are required for the production processes other than parts and materials but do not become part of the product. For example, it refers to consumables such as chemicals, gases, masking tapes and the like. In the service industry and commerce, mainly consumables and equipment parts are targeted.</p> |
| 25 | part | <p>Original part converted from a chemical product to an article for the first time until reaching the completed product Examples: One key of a keyboard of a computer or a piece of steel material for a motor. Part manufactured by assembling parts Examples: Keyboard of a computer, motor for electric drill, etc.</p> |
| 26 | The Waste Framework Directive (WFD) | <p>The Waste Framework Directive (WFD) is an European Union Directive of 17 June 2008 concerned with "measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use".</p> |
| 27 | theoretical value | <p>A value derived based on theory.</p> |
| 28 | solvents | <p>Name of substance that dissolves other substances.</p> |
| 29 | JAMP AIS | <p>AIS is an acronym of "Article Information Sheet". It is an information description format to disclose and inform people of chemical substances included in articles (such as products and parts) created by JAMP.</p> |
| 30 | California Air Resource Board | <p>Environment regulation of California in the U.S. It is a law to legalize Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products (ATCM) to regulate use, etc. of formaldehyde in the state and to limit the use to wood products such as plywood.</p> |

Table EC-810-05-05 The list of definition of terms

Revised : April 1, 2021

| | Terms | Definition |
|----|---|--|
| 31 | chemSHERPA (chemSHERPA-AI, chemSHERPA-CI) | A scheme that facilitates sharing information on chemical substances in products. It consists of JGPSI and AIS. The format used to transmit information on chemical substances contained in "articles" is "chemSHERPA-AI" The format used to transmit information on chemical substances contained in "chemicals" is "chemSHERPA-CI" https://chemsherpa.net/english IN the end of 2017 , chemical substances information was not renewed and we need to use chemSHERPA from this time. It corresponds to SCIP from Ver.2.02 revised in October 2020. |
| 32 | GADSL (global Automotive Declarable Substance List) | List of substances for exchanging information of environmentally hazardous substances prepared by consensus of the group established by automobile related manufactures of various countries (GASG: Global Automotive Stakeholders Group). |
| 33 | IEC62474 | An international standard that defines the contents, format, procedures, etc. of the information declaration of components of electric and electronic products in the supply chain issued in March 2012. |
| 34 | JAMP (Joint Article Management Promotion- consortium) | JAMP stands for Joint Article Management Promotion-consortium.'JAMP manages information on chemical substances contained in an article (described in item 14) appropriately and aims to establish and disseminate the concrete system to disclose and transmit the information through companies on supply chain smoothly. |
| 35 | JAMP Declarable Substances | Chemical substances selected and managed by JAMP (Joint Article Management Promotion-consortium) from laws and regulations and industry standards. |
| 36 | JAMP-SN | When managing all substances with computers, it becomes difficult to identify substances that do not have a CAS No. or that are not identifiable with a CAS No. (substances categorized under a complement group) when distributing information if they do not have an ID No. JAMP Substance Numbers have been introduced as a measure to resolve this issue. |
| 37 | JGPSSI (Stands for Japan Green Procurement Survey Standardization Initiative) | JGP file is electronic data with items in the scope of the survey and information on contained chemical substances created using a survey response tool of the former Japan Green Procurement Survey Standardization Initiative. |
| 38 | JIG (Joint Industry Guide) | JIG stands for Joint Industry Guide.'JIG refers to common guidelines for standardization of Green Procurement Surveys in collaboration with the former JGPSSI, EIA, and EICTA. EIA stands for Electronic Industries Alliance.JIG-101 has not been revised since Ver. 4.2 but was succeeded by international standard IEC 62474/Japanese VT62474 (Material Declaration for Products of and for the Electro technical Industry DB) Ver. 4.31. |
| 39 | JIS Z 7201 : 2012/2017 | Guidelines established by Japanese Industrial Standards. |
| 40 | JAMP MSDSplus | MSDSplus is an information description format to disclose and inform people of chemical substances included in chemical substances and mixtures, and it complements the SDS created by JAMP. |
| 41 | Original Design Manufacturing | Production method in which the product is developed from product development to design and manufacture, and the consignor sells the product. |
| 42 | Original Equipment Manufacturing | To manufacture products, it would be sold under the name or brand of the ordering company. |
| 43 | EU POPs Regulation | Regulation for fulfilling the European Union's pledge under the Stockholm Convention on POPs (Persistent Organic Pollutants in the Environment) |
| 44 | REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) | REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals.'REACH is a European law for management of chemical substances. REACH was established by EC regulation No.1907/2006.'REACH is law and regulation on the total Registration, Evaluation, Authorization and Restriction of chemical substances.Check the original text of Annex XVII (Restrictions on placing on the market and use) for details of restricted use of each substance. http://echa.europa.eu/enterprise/sectors/chemicals/reach/restrictions/index_en.htm .Check the original text of Annex XIV (List of substances subject to authorisation to regulate use contained in articles in the EU). http://echa.europa.eu/web/guest/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list NITTO KOHKI controlled SVHC, Annex 14 (Authorized substance) and Annex 17 (Restricted substance). |

Table EC-810-05-05 The list of definition of terms

Revised : April 1, 2021

| | Terms | Definition |
|----|---|--|
| 45 | REACH SVHC (Substances of Very High Concern) | Substances of very high concern determined and publicized by the ECHA (European Chemical Agency) as a list of candidate authorized substances (= List of candidate substances subject to authorisation) described in Annex XIV of EU REACH Regulation. Refer to the attached Table EC-810-05-05 and the original text in URL described below for the latest list. http://echa.europa.eu/web/guest/candidate-list-table |
| 46 | RoHS (Restriction of the use of Hazardous Substances in electrical and electronic equipment) | RoHS stands for Restriction of Hazardous Substances. Directive of the European Parliament on the restriction of the use of certain hazardous substances in electrical and electronic equipment. (2011/65/EU) From July 2019, 10 substance groups will be targeted. |
| 47 | Toxic Substances Control Act | The Toxic Substances Control Act (TSCA) of the U.S. is the law controlled by the Environment Protection Agency (EPA) to regulate chemical substances, mixtures and articles manufactured, fabricated or imported in the U.S. for commercial purpose in order to prevent risks from chemical substances harmful to health and the environment. There is a law regulated by the Occupational Safety and Health Administration (OSHA). |