



# **Environmental Product Content Specification for Suppliers & Outsourced Manufacturers**

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# 1.0 Purpose and Scope

## 1.1 Purpose

### 1.1.1 What it is

The environmental product content specification outlines environmental requirements for Intel suppliers and outsourced manufacturers.

### 1.1.2 Why use it

Intel sets high environmental compliance standards for its products and requires that its suppliers and outsource manufacturers meet those same compliance standards.

**REQUIREMENTS:** In this specification, environmental requirements are defined in Section 3 below.

- Manufacturing restrictions
- Product content restrictions
- Intel EU RoHS 2 exemption expiration requirement
- Battery content restrictions
- Packaging requirements
- Future Material Restriction and/or Reporting
- Material Declaration Requirements

**DOCUMENTATION:** This document shall be referenced in the contract & the purchasing agreement document.

**AFFIRMING TO THE EPC:** Upon request, all part and/or material suppliers must review this specification & sign the conformance form in Attachment C (EPC conformance form). The signed form must be returned to either the Intel Commodity Manager or submitted directly through the supplier portal (see reference section for link). In order for a supplier to use the portal, they must first register (see registration link in reference section). If assistance is required, please use the support application in the supplier portal.

**Conformance using Intel Supplier Portal:** Intel requires that the mandatory document be submitted through Intel's Compliance Portal. Information on how to register and submit collateral can be found at the Environmental page of the Supplier portal. (see link in reference section)

**DECLARATION OF CONFORMANCE:** Intel has adopted the latest industry standards for materials declaration data exchange. Suppliers are required to provide a material declaration form for each part, product or product family supplied to Intel, which includes disclosures for Restriction of Hazardous Substances (RoHS), Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulations, Cal Prop 65, low halogen initiative, etc. Suppliers shall provide full material disclosure (FMD) according to IPC 1752A (Class-D) or IEC 62474 standards. Intel also offers an online material data entry tool known as the Material Disclosure Form (MDF). This form is designed according to the IPC1752A data exchange standard. This form is another option for suppliers to submit Class-D declarations.

# 2.0 Roles and Responsibilities

Role	Responsibility
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Supplier and contract manufacturer	Supplier and contract manufacturer to review this specification and sign and return the form in Attachment C (EPC conformance form). Alternatively, if the specification distribution system allows for confirming conformance directly, please do so through that system.
Intel Commodity manager	The Commodity manager will ensure that the suppliers & contract manufacturers have been provided this information & respond with a signature on the appropriate form(s) in Attachment C.
Packaging Engineer	Ensure that the packaging content in this spec is accurate and updated.
Corporate Products Regulations & Standards (CPRS) Materials Center of Excellence (CoE)	The Materials COE from Corporate Products Regulations & Standards (CPRS) will provide the restricted materials information to the specification owner.
Supply Chain Responsible Minerals Resources Team	Ensure that the Responsible minerals resourcing sections are updated and accurate.
Supply Chain Sustainability/ Manufacturing Group	Ensure that the Manufacturing restrictions and Manufacturing material restrictions sections are updated and accurate.

### 3.0 Requirements and Restrictions

Intel is committed to complying with evolving global chemical regulation that may restrict use, require labeling, restrict import/export, limit manufacture or distribution in commerce, and limit or ban their presence in products. The primary drivers of chemical regulation include U.S. Toxic Substances Control Act (TSCA), E.U. RoHS, E.U. REACH, and similar laws in other geographies. Suppliers and outsourced manufacturers are expected to monitor applicable chemical regulations and comply with all applicable restrictions, limitations, and record keeping requirements. Intel may survey suppliers and outsourced manufacturers, request specific information to confirm compliance, and/or seek certification of compliance with specific restrictions. Highlighted here are some examples of major chemical regulations that suppliers and outsourced manufacturers should monitor:

- US TSCA: TSCA gives the U.S. Environmental Protection Agency (EPA) the authority to limit or ban the manufacture, import, distribution in commerce and use of chemical substances and mixtures based on their potential risks to human health and the environment. TSCA requirements that may be implicated include: import certification, export notification, pre-manufacture notification (including consent order) and notice of commencement, significant new uses rule and significant new use notice, and commercial exemptions.
- EU RoHS (and similar laws in other geographies): E.U. RoHS is a Directive that restricts use of specific hazardous materials in electrical and electronic products. A number of other countries have adopted similar restrictions. These restrictions are updated from time-to-time to restrict new hazardous materials and modify exemptions to existing restrictions. (see section 4.3 for more information)
- EU REACH (and similar laws in other geographies): E.U. REACH is a regulation establishing a system for controlling the manufacture and import of chemicals into the E.U. Registration is required before importing chemical substances into the E.U. above 1 tonne/year, including, in some cases, substances in articles. (see section 4.4 for more information)
- China VOC Standards: The China VOC standards are mandatory national standards limiting the VOC-content in coatings, inks, adhesives, and cleaning agents.

### 3.1 Manufacturing Restrictions

The following materials are prohibited in the supplier manufacturing environment. This prohibition includes their use in the manufacturing of raw materials, parts or products supplied to Intel which are ultimately incorporated into the product that Intel sells. Upon request Intel requires every supplier to complete and return Attachment C (EPC conformance form), or as applicable confirm conformance in the relevant electronic specification system this document was distributed from as proof of compliance with the following requirement.

Table 1

Material	Potential Industry Uses	Threshold	Reason for Inclusion
Ozone Depleting Substances – Class I	Not expected due to industry phase-out, but rare cleaning applications may be found.	Prohibited	2037/2000/EC,, Montreal Protocol; US: Clean Air Act Amendments Title VI (40 CFR Part 82.106);

The following materials are prohibited for use in the manufacturing of parts or products on behalf of Intel (e.g. outsourced manufacturing).

Table 2

Material	Potential Industry Uses	Threshold	Reason for Inclusion
Ozone Depleting Substances – Class I	Not expected due to industry phase-out, but rare cleaning applications may be found.	Prohibited	2037/2000/EC, Montreal Protocol; US: Clean Air Act Amendments Title VI (40 CFR Part 82.106);
Ozone Depleting Substances – Class II	Not expected, but use of HCFCs as substitute for CFCs in cleaning operations may be found.	Prohibited	Clean Air Act Amendments Title VI (40 CFR Part 82) 2037/2000/EC

Additionally, the following manufacturing chemicals of high concerns should be prioritized for alternative assessments are subject to future regulations. to Please see more information here: [Priority Chemicals :: Clean Electronics Production Network](#)) for more detail).

**\*Cleaning applications:** Chemicals and chemical mixtures used to remove contaminants, unwanted materials and/or manufacturing processing residues (e.g. lubricants, adhesives, solder flux residues, plastic residue, mold releases, etc.) from:

- Individual parts, subcomponents, assemblies, process substrates and/or final assembled products; and/or
- Manufacturing equipment to manufacture individual components or final product

Examples of chemical products used for cleaning include solvents, aqueous detergent solutions, stencil/ink removers, adhesive removers, solvent vapor degreaser solutions, ultrasonic parts cleaner solutions, photo-resist strippers, solder defluxing solutions, etc.

Note that fluxes are not considered cleaning products.

### 3.2 General Product Content Restrictions and Reporting

The following materials are prohibited in raw materials (except Fab process chemicals), parts, components, or products that are ultimately incorporated into the product that Intel sells, above the thresholds defined below. Restrictions are divided into two categories: General Restrictions and Specific Applications. For the category of Specific Applications, materials are only restricted for use in those applications listed in the table.

### 3.2.1 General Restrictions

The following regulated materials are prohibited in all raw materials (except Fab process chemicals), parts, components or products provided to Intel that are ultimately incorporated into the product that Intel sells.

The IEC 62474 establishes three criteria that determine whether substances shall be declared. The resulting declarable substance list is based on these criteria which the industry has determined justify disclosure when these material/substances are present in electrotechnical products in amounts that exceed their specified threshold levels. These levels include, 'Criteria 1,' which identifies those substances currently regulated; 'Criteria 2,' which identifies those substances with potential to be regulated, prompting their use to be assessed; and 'Criteria 3,' which identifies those substances not currently regulated, but where market-driven reporting is required for electrotechnical products to enable assessment against industry standards and agreements.

### 3.2.2 Intel-Specific Restriction Requirements

**Reportable:** Substances that are noted as 'reportable' under Intel requirements must be communicated to Intel via full material disclosure declaration and shall include the appropriate CAS numbers. These substances are not currently banned or controlled for use but a ban or voluntary phase-out is likely or they have an impact on the end-of-life management of the finished product.

**Controlled:** Substances that are noted as 'controlled' under Intel requirements are limited for use in the manufacturing process or in certain applications at the levels specified in the IEC 62474 table, under the 'Reportable Application' column.

**Prohibited:** Substances that are noted as 'prohibited' under Intel requirements shall not be intentionally added to materials used in Intel products and equipment in the restricted application. Use of these substances is not allowed at any level unless noted as an exemption in the acceptance criteria

**California Proposition 65: Labeling Required:** Where in scope of Cal Prop 65 and where applicable due to the presence of Cal Prop 65 chemicals, the warning must be on the final retail product box. The label should be on the largest/highest level packaging for an individual unit. The minimum mark size should be legible to corrected, unmagnified vision and printed in indelible ink, free of restricted substances.

The warning label must be specific to the chemicals in the product, not just broad warnings as in the past. The (!) warning sign shall also be used.

Examples of Required Labeling Language:

- Carcinogens



**WARNING** This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

- Reproductive toxicants



**WARNING** This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

- A **single** chemical that is listed as both a carcinogen and a reproductive toxicant



**WARNING** This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

- Both carcinogens and reproductive toxicants found within product



**WARNING** This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause cancer, and [name of one or more chemicals], which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### 3.2.3 IEC62474 Declarable Substance List

Table A – IEC62474 Declarable Substance List v D24.00

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00001		Diarsenic pentoxide	1303-28-2		Additive in wood, metal, glass and plastics	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00002		Diarsenic trioxide	1327-53-3		Additive in wood, metal, glass and plastics	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00003	Asbestos <sup>2</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Insulator, filler, pigment, paint, talc	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006. United States: Toxic Substances Control Act (TSCA); Switzerland Ordinance on Reduction of Risks from Chemical Products (ORRChim)	All	Intentionally added	<b>Prohibited</b>
00004	Azocolourants and azodyes which form certain aromatic amines <sup>2 3</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigment, dyes, colorants	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Textiles and Leather	0.003% by weight of the finished textile/ leather product <sup>4</sup>	<b>Controlled</b>

<sup>1</sup> The default reporting threshold for substances on the candidate list for European REACH Regulation No. 1907/2006/EC will be updated from “product” to “article” (unless otherwise specified) in the IEC 62474 Declarable substances list version D11.00 to align with the European Court of Justice ruling “JUDGMENT OF THE COURT (Third Chamber) 10 September 2015.”

<sup>2</sup> This declarable substance group has a complete list of substances that is specified in the reference substance list

<sup>3</sup> The European Community's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes.

<sup>4</sup> The European Community's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00005		Beryllium Oxide	1304-56-9		Ceramics	Criteria 3: For Information Only	European Industry Agreement (DIGITIALEUROPE (formerly EICTA), CECED and EERA Joint Position Guidance on implementing article 11 of Directive 2002/96(EC) concerning information for treatment facilities) -2005	All	0.1 mass%	Reportable
00007		Boric acid (EC No. 233-139-2 and EC No. 234-343-4)	10043-35-3, 11113-50-1		In wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative, as flame retardant in wood, cotton and other plant derived material	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00008	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Flame retardant in printed wiring board laminate	Criteria 3: For Information Only	Industry Standards IEC 61249-2-21 and IPC-4101	Printed wiring board laminate	0.09 mass% total bromine content in laminate	Reportable
00009	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Flame retardant for housing, connectors, package molding sealing	Criteria 3: For Information Only	Joint JEDEC/ECA JS-709A Standard Defining "Low Halogen" Electronics	Plastic materials except printed wiring	0.1 mass% of bromine in plastic materials	Reportable All non-metal parts, regardless of weight

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
								board laminates <sup>5</sup>		
00010	Cadmium/Cadmium compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigments, anti-corrosion surface treatments, optical glass, heat stabilizers, plating, fluorescent materials, electrodes, low melting solders, electric contacts, zinc plating, photoelectric applications, phosphor coatings, bearing alloys	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); ANNEX XVII of REACH Regulation (EC) No 1907/2006; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; . Revised law for Promotion of Effective Utilization of Resources(J-Moss)	All, except batteries	0.01 mass% of total Cd in homogenous material	<b>Prohibited</b>
00011	Cadmium/ Cadmium compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Relay contact; photodiode voltaic cell, Ni/Cd battery	Criteria 1: Currently Regulated	2006/66/EC EU Battery Directive and Korean Quality Management and Safety Control of Industrial Products Act	Batteries	0.001% by weight of battery	<b>Controlled</b>
00012	Chromium (VI) Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigment, paint, ink, catalyst, plating, anticorrosion surface treatment, dye, paint dryer, surface treatment	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control;	All	0.1 mass% of total Cr+6 in homogenous material	<b>Prohibited</b>

<sup>5</sup> A printed wiring board laminate refers to the layered board materials excluding surface finishing and components

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
							California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(JMoss); Candidate list for European REACH Regulation No. 1907/2006/EC			
00013		Cobalt dichloride	7646-79-9		Pneumatic panels to indicate water contamination	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00014	Dibutyltin (DBT) compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	DBT	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	All	0.1 mass% of tin in the part	Prohibited
00015	Diocetyl tin (DOT) compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	DOT	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	(a) textile and leather articles intended to come into contact with the skin,, (b) childcare articles, (c) two-component room temperature vulcanization moulding kits	0.1 mass% of tin in the part	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
								(RTV-2 moulding kits)		
00016		Dimethylfumarate (DMF)	624-49-7	DMF; Dimethyl (E)-butenedioate; 2-Butenedioic acid (2E)-, dimethyl ester	Biocide, mold prevention treatment of electronic leather seats, including recliners, massage chairs	Criteria 1: Currently Regulated	COMMISSION DECISION 2009/251/EC	All	0.00001 mass% of the part	<b>Prohibited</b>
00017	Disodium tetraborates	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		In wood veneers/pressed wooden panels as starch additive, flame retardant and tabilizer in aminoplastic resin, wood preservative	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00018	Fluorinated Greenhouse Gases (PFC, SF6, HFC)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas	Criteria 1: Currently Regulated	EU Reg. No. 842/2006	All	Intentionally Added <sup>6</sup>	<b>Prohibited</b>

<sup>6</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

Formaldehyde in hardwood plyboard with veneer core – 0.05 ppm (measured as gaseous emission from product);

For Nickel in applications of prolonged skin contact - 0.5 micrograms/sq cm/week per DIN EN 1811;

Radioactive substances -a dose rate exceeding 1 µSv h<sup>-1</sup> at a distance of 0,1 m.

Because emission and exposure levels cannot be derived from actual concentrations, a threshold level of “intentionally added” is indicated for reporting. Suppliers may choose to report a default concentration of 0.1% by weight in the product for these substances, in lieu of determining the exact concentrations in their products, to indicate that the substance is known to be present in their product, as the actual concentration in the product is not informative for regulatory compliance assessment.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00019		Formaldehyde	50-00-0		Resin treatment or biocide; mold prevention treatment for textiles; adhesives and sealants; paints and coating products; manufacturing of resins	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	(a) clothing or related accessories, (b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin to an extent similar to clothing, (c) footwear	0.0075 mass% in homogenous material	<b>Controlled</b>
00020	Hexabromocyclododecane (HBCDD) <sup>7</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Flame retardant; mainly used for expanded polystyrene and some types of fiber	Criteria 1: Currently Regulated	The Law Concerning the Examination and Regulation of Manufacture, etc of Chemical Substances Control Law; Candidate list for European REACH Regulation No. 1907/2006/EC; (EC) 850/2004(POPs regulation)	All	Intentionally added or 0.1 mass% of article	<b>Prohibited</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00021	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free-machining alloy, free-cutting steels, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, resin stabilizer, plating, metal alloy, resin additives	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(J-Moss); ANNEX XVII of REACH Regulation (EC) No 1907/2006	All, except for: 1. batteries, 2. surface coating material of cables/cords with thermoset or thermoplastic coatings, and 3. paint and similar surface coatings of toys and other articles intended for use by children	0.1 mass% of total Pb in homogenous material	<b>Prohibited</b>
00022	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigment, paint, stabilizer, colorant	Criteria 1: Currently Regulated	U.S. Consumer Product Safety Improvement Act as modified by 76 FR 44463	Consumer products designed or intended primarily for children 12 years of age or younger	0.01 mass%	<b>Controlled</b>
00023	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigment, paint, stabilizer, colorant	Criteria 1: Currently Regulated	U.S. Consumer Product Safety Improvement Act	Paint and similar surface coatings of toys and other articles intended for use by children	0.009 mass% of surface coating material	<b>Controlled</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00024	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Cables/cords	Criteria 1: Currently Regulated	US/CA Proposition 65 Case law	Cables/cords with thermoset or thermoplastic coatings	0.03 mass% of surface coating material	<b>Reportable</b>  <b>and</b>  <b>California Proposition 65: Labeling Required for external applications</b>
00025	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Zinc carbon batteries, alkaline button cells	Criteria 1: Currently Regulated	2006/66/EC EU Battery Directive; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries	Batteries	0.004 mass% of battery	<b>Controlled</b>
00026		Lead chromate	7758-97-6	Lead (II) chromate	Colorant in plastics; Colorant in paint	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00027		Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	Lead chromate molybdate sulphate red	Colorant in plastics; Colorant in red paint	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00028		Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Lead sulfochromate yellow	Colorant in plastics; Colorant in yellow paint	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00029	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); ANNEX XVII of REACH Regulation (EC) No 1907/2006; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(JMoss); Canadian Products Containing Mercury Regulations (SOR/2014-254)	All, except batteries	Intentionally Added or 0.1 mass% of total Hg in homogenous material <sup>7</sup>	<b>Prohibited</b>

<sup>7</sup> Reference Attachment A for clarification of how the two reporting thresholds apply

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00030	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Silver-oxide button cells, alkaline batteries, zinc carbon batteries	Criteria 1: Currently Regulated	Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"; Korea: Law on quality management and control of safety of industrial products Battery regulation; 2006/66/EC EU Battery Directive; New York Env Law § 27-0719 Battery Management and Disposal	Batteries	Intentionally added or 0.0001 mass% of battery	<b>Controlled</b>
00132	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Silver-oxide button cells, alkaline batteries, zinc carbon batteries	Criteria 1: Currently Regulated	Canadian Products Containing Mercury Regulations (SOR/2014-254)	Batteries	0.0005 mass% of total Hg in homogenous material	<b>Controlled</b>
00031	Nickel/Nickel Compounds		7440-02-0		Stainless steel, plating; Example application for	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006	All, where prolonged	Intentionally Added <sup>8</sup>	<b>Controlled</b>

<sup>8</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

*Formaldehyde in hardwood plyboard with veneer core – 0.05 ppm (measured as gaseous emission from product);*

*For Nickel in applications of prolonged skin contact - 0.5 micrograms/sq cm/week per DIN EN 1811;*

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
		See Reference Substance worksheet for more details			prolonged skin contact is an ear bud (headphone); mobile phone			skin contact is expected		
00032	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Refrigerant, foaming agent, extinguishant, solvent cleaner	Criteria 1: Currently Regulated	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and others (Japanese law), Montreal Protocol, 1990 revision of Article 611 of the Clean Air Act (US law); Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer	All	Intentionally Added	<b>Prohibited</b>
00033	Perchlorates	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Lithium batteries; coin cell batteries	Criteria 1: Currently Regulated	California Assembly Bill No. 826 - Perchlorate Contamination Prevention Act; implemented July 1, 2006	All	6 x 10 <sup>-7</sup> mass% of battery or product part	<b>Reportable and Labeling Required</b>
00035		2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	UV-320; Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-	UV stabilizer in adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers	Criteria 1: Currently Regulated	Japan (Law Concerning the Examination and Regulation of Manufacture); Candidate list for European REACH	All	Intentionally added or 0.1 mass % of article	<b>Prohibited</b>

Radioactive substances -a dose rate exceeding 1 μSv h<sup>-1</sup> at a distance of 0,1 m.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
				dimethlethyl)-			Regulation No. 1907/2006/EC			
00036	Phthalates, Selected Group 1 (DEHP, DBP, BBP, DIBP) <sup>9</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	BBP, DBP, DEHP, DIBP	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006; U.S. Consumer Product Safety Improvement Act	Children's toy or child care article	0.1 mass% as the sum of the phthalate concentrations in plasticized material	<b>Controlled</b>
00037	Phthalates, Selected Group 2 (DIDP, DINP, DNOP) <sup>9</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006; U.S. Consumer Product Safety Improvement Act	Children's toy or child care article that can be placed in a child's mouth	0.1 mass% as the sum of the phthalate concentrations in plasticized material <sup>10</sup>	<b>Controlled</b>
00038		Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	Di(2-ethylhexyl) phthalate (DEHP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant  <b>Key Intel Identified Commodities: Cables, cords, wires, power adapters and gaskets</b>	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its ammendments); Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% in homogeneous material	<b>Prohibited</b>  <b>and</b>  <b>California Proposition 65: Labeling Required</b>  <b>Note: Intel requirement goes beyond REACH article level reporting</b>

<sup>9</sup> This declarable substance group has a complete list of substances that is specified in the reference substance list

<sup>10</sup> The threshold level here is the sum of the phthalate concentrations of the phthalates (identified in the respective Annex B tables) in the selected phthalate group designated by the Substance/Category.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00039		Dibutyl phthalate (DBP)	84-74-2	Dibutylphthalate (DBP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant  <b>Key Intel Identified Commodities: Cables, cords, wires, power adapters and gaskets</b>	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% in homogeneous material	<b>Prohibited</b>  <b>And</b>  <b>California Proposition 65: Labeling Required</b>  <b>Note: Intel requirement goes beyond REACH article level reporting</b>
00040		Benzyl butyl phthalate (BBP)	85-68-7	Benzylbutylphthalate (BBP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant  <b>Key Intel Identified Commodities: Cables, cords, wires, power adapters and gaskets</b>	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% in homogeneous material	<b>Prohibited</b>  <b>and</b>  <b>California Proposition 65: Labeling Required</b>  <b>Note: Intel requirement goes beyond REACH article level reporting</b>
00041		Diisobutyl phthalate	84-69-5	Diisobutyl phthalate (DIBP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for	All	0.1 mass% in homogeneous material	<b>Prohibited</b>  <b>and</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					<b>Key Intel Identified Commodities: Cables, cords, wires, power adapters and gaskets</b>		European REACH Regulation No. 1907/2006/EC			<b>California Proposition 65: Labeling Required</b>  Note: Intel requirement goes beyond REACH article level reporting
00042		1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	1,2-Benzenedi carboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00043		1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	1,2-Benzenedi carboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00044	Polybrominated biphenyls (PBB)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PBB	Flame retardant	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; Revised law for Promotion of Effective Utilization	All	0.1 mass% in homogenous material	<b>Prohibited</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
							of Resources(J-Moss)			
00045	Polybrominated diphenyl ethers (PBDE)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PBDE	Flame retardant	Criteria 1: Currently Regulated	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; Revised law for Promotion of Effective Utilization of Resources(J-Moss); Japan Law concerning the evaluation of chemical substances	All	0.1 mass% in homogenous material <sup>11</sup>	<b>Prohibited</b>
00046	Polychlorinated Biphenyls (PCBs) and specific substitutes	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, fire retardants, dielectric sealants	Criteria 1: Currently Regulated	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law – PCBs only), ANNEX XVII of REACH Regulation (EC) No 1907/2006; US Toxic Substance Control Act (TSCA)	All	Intentionally added	<b>Prohibited</b>
00047	Polychlorinated Terphenyls (PCTs)	See Reference Substance worksheet for more details	See Reference Substance		Insulation oil, lubricant oil, electrical insulation	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006	All	0.005 mass% in material	<b>Prohibited</b>

<sup>11</sup> See Attachment A for clarification of how the two reporting thresholds apply

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
			worksheet for more details		medium, solvent, electrolytic solution, plasticizers, fire retardants, coatings for electrical wire and cable, dielectric sealants					
00048	Polychlorinated naphthalenes	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PCNs	Lubricant, paint, stabilizer (electric characteristic, flame-resistant, water resistant) insulator, flame retardant	Criteria 1: Currently Regulated	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law)	All	Intentionally added	<b>Prohibited</b>
00049	Radioactive substances	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Optical properties (thorium), measuring devices, gauges, detectors	Criteria 1: Currently Regulated	U.S. Nuclear Regulatory Commission Title 10 CFR Part 20 (Appendix C); Laws for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 (Japanese law); Japan Law Concerning Prevention from Radiation Hazards;	All	Intentionally added <sup>12</sup>	<b>Prohibited</b>

<sup>12</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

Formaldehyde in hardwood plyboard with veneer core – 0.05 ppm (measured as gaseous emission from product);

For Nickel in applications of prolonged skin contact - 0.5 micrograms/sq cm/week per DIN EN 1811;

Radioactive substances -a dose rate exceeding 1 μSv h<sup>-1</sup> at a distance of 0,1 m.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
							EU-D 96/29/Euratom			
00050	Aluminosilicate Refractory Ceramic Fibres <sup>13</sup>				Thermal insulation for high temperature test equipment	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass % of article	Reportable
00051	Zirconia Aluminosilicate Refractory Ceramic Fibres <sup>14</sup>				Thermal insulation for high temperature test equipment	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass % of article	Reportable
00052	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	Shortchain Chlorinated Paraffins (C10 – C13)	Plasticizer for PVC, flame retardant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC ; (EC) 850/2004(POPs regulation); Norway Product Regulations FOR-2004-06-01-922,, Swiss Ordinance on Reduction of Risk from Chemical Products	All	Intentionally added or 0.1 mass% of article	Prohibited

<sup>13</sup> 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 (µm) c) alkaline oxide and alkali earth oxide (Na<sub>2</sub>O+K<sub>2</sub>O+CaO+MgO+BaO) content less or equal to 18% by weight..

<sup>14</sup> 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 (µm). c) alkaline oxide and alkali earth oxide (Na<sub>2</sub>O+K<sub>2</sub>O+CaO+MgO+BaO) content less or equal to 18% by weight

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00053		Strontium chromate	7789-06-2		Pigment; corrosion resistant coating	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00054		Bis(tributyltin) oxide (TBTO)	56-35-9	Tributyl Tin Oxide (TBTO)	Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner	Criteria 1: Currently Regulated	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law);Candidate list (version of 29.10.2008), Article 59 (1, 10), Article 33, Article 7.2, European REACH Regulation No. 1907/2006/EC	All	Intentionally added or 0.1 mass% <sup>15</sup> of article	Prohibited
00055	Tri-substituted organostannic compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, anti-	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010; Japan	All	Intentionally added or 0.1 mass% of tin in the part <sup>16</sup> <sup>17</sup>	Prohibited

<sup>15</sup> Reference Attachment A for clarification of how the two reporting thresholds apply.

<sup>16</sup> Commission Regulation (EU) No 276/2010 defines a concentration limit of 0.1% by weight of tin in the article or part thereof. Likewise Commission Decision 2009/251/EC defines a concentration limit of 0.00001% by weight of DMF in the product or part of the product and Commission Regulation (EC) No 552/2009 defines a concentration limit of 0.1% by weight of PFOS in the semifinished product or article or part thereof. Because no legal definition of part is provided in these legislations, the most potentially restrictive concentration limit is not adequately specified. Therefore, the concentration limit is applied at the level of a material vs. a part to ensure disclosure of the regulated substances for the most basic unit of a part.

<sup>17</sup> Reference Attachment A for clarification of how the two reporting thresholds apply.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					fungal agent, paint, pigment, antistaining		Law concerning the evaluation of chemical substances Norwegian product regulation			
00056		Tris(2-chloroethyl) phosphate	115-96-8	TCEP; Ethanol, 2-chloro-, phosphate (3:1)	Flame retardant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00057		4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	Unreacted process chemical	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00058		Bis(2-methoxyethyl) ether	111-96-6		Electrolyte in lithium batteries	Criteria 1: Currently Regulated	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)	All	0.1 mass% of article	Reportable
00059		Bis(2-methoxyethyl) phthalate	117-82-8		Plasticizer	Criteria 1: Currently Regulated	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)	All	0.1 mass% of article	Reportable
00060		Pentazinc chromate octahydroxide	49663-84-5		Colorant	Criteria 1: Currently Regulated	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
							authorization 19.12.2011)			
00061		Potassium hydroxyoctaoxidizincate dichromate	11103-86-9	Potassium hydroxyoctaoxidizincate dichromate	Paint, anti-corrosion	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00062	Chlorinated Flame Retardants (CFR)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		flame retardant for housing, connectors, package molding sealing	Criteria 3: For Information Only	Joint JEDEC/ECA JS-709A Standard Defining "Low Halogen" Electronics	Plastic materials except printed wiring board laminates	0.1 mass% chlorine in plastic materials	Reportable
00063	Chlorinated Flame Retardants (CFR)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		flame retardant	Criteria 3: For Information Only	IPC-4101 and IEC 61249-2-21	Printed Wiring Board (PWB) Laminates	0.09 mass% total chlorine content in laminate	Reportable
00064		Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	Decabromodiphenyl ether; Bis(pentabromophenyl ether); DecaBDE; Deca-BDE; 2,3,4,5,6-Pentabromo-1-(2,3,4,5,6-pentabromophenoxy) benzene; BDE-209	Flame retardant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00065		Sulfurous acid, lead salt, dibasic	62229-08-7	sulfurous acid, lead; basic lead sulfite and lead sulfite	Heat stabilizer for PVC, for example for wiring and cabling insulation	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00066		1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Triglyme, TEGDME, Triethylene glycol dimethyl ether, Ansul Ether 161, DMTG, Ethane 1,2-bis(2-methoxyethoxy)-, Glyme 4, Hisolve MTM, Methyltriglyme, NSC 66400	Solvent may be used in battery electrolytes for lithium batteries. May be in found in printing inks.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00067		Trilead dioxide phosphonate	12141-20-7	Lead phosphite, dibasic; Lead oxide phosphonate; plumbous phosphite	Heat stabilizer for PVC, for example for wiring and cabling insulation	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00068		1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	1,2-Ethanediol, dimethyl ether; 2,5-Dioxahexane; DME; DME (glycol ether);	Solvent used in battery electrolytes for lithium batteries. May be in found in printing inks and paint strippers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
				Dimethyl Cellosolve; Ethylene dimethyl ether; Glycol dimethyl ether; Glyme; Hisolve MMM; Monoethylene glycol dimethyl ether; Monoglyme; NSC 60542; $\alpha,\beta$ -Dimethoxy ethane						
00069		4-Aminoazobenzene	60-09-3	4-Phenylazo aniline, Aniline Yellow	Used as yellow pigment and in inks, including inks for inkjet printers. It is also used as a dye for lacquer, varnish, wax products, oil stains and styrene resins.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00070		Tetralead trioxide sulphate	12202-17-4	Tetralead trioxide sulfate; Lead tribasic sulfate; Tribasic lead sulfate; Lead oxide sulfate;	Heat stabilizer for PVC, for example for wiring and cabling insulation	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
				Lead sulfate tribasic; Lead oxide sulfate monohydrate; Lead(2+) sulfate – oxo-L2-plumbane (1:3)						
00071		Orange lead (lead tetroxide)	1314-41-6		Used in rust-proof primer paints	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00072		Pyrochlore, antimony lead yellow	8012-00-8	Lead antimonate	Used as yellow pigment for coloring plastics and paint	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00073		Pentalead tetraoxide sulphate	12065-90-6	Tetrabasic lead sulfate and lead oxide sulfate	Heat stabilizer for plastics; for example, non-transparent PVC	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00074		1,2-Diethoxyethane	629-14-1	Diethyl glycol; Ethylene Glycol Diethyl Ether	Solvent used in electrolytes for lithium batteries.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00075		Diboron trioxide	1303-86-2	Boron oxide, Boron sequioxide	Found in wood veneers, glass/fiberoptics and ceramics – for industrial applications	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00076		Dibutyltin dichloride (DBTC)	683-18-1	Dibutylidic hlorotin	Ingredient in some paint thinner and as heat stabilizer for PVC	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00077		Lead cyanamidate	20837-86-9	Cyanamide ,lead(2+)salt(1:1)	Used in anticorrosion coatings e.g. steel articles	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00078		N,N-dimethylformamide	68-12-2	Formyldim ethylamine	Used as electrolyte in electrolytic capacitors rated for low temperature use to -55C.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00079		Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped <sup>18</sup>	68784-75-8	Barium silicate; lead doped	Used in UV emitting light bulbs and lamps	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00080		1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0	bis-C5-alkyl- (linear and branched) phthalate	Plasticizer in plastic materials in specialist applications, for example where high solvating plasticizers and stain resistance are required	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

<sup>18</sup> REACH Candidate list for European REACH Regulation No. 1907/2006/EC provides the more detailed entry "Silicic acid (H<sub>2</sub>Si<sub>2</sub>O<sub>5</sub>), 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]"

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00081		Diisopentyl phthalate	605-50-5	Bis(3-methylbutyl) phthalate; 1,2-Benzenedi carboxylic acid, 1,2-bis(3-methylbutyl) ester	Plasticizer in plastic materials in specialist applications, for example where high solvating plasticizers and stain resistance are required	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00082		N-pentyl-isopentylphthalate	776297-69-9	n-Pentyl-isopentyl phthalate; 1,2-Benzenedi carboxylic acid, 3-methylbutylpentyl ester	Plasticizer in plastic materials in specialist applications, for example where high solvating plasticizers and stain resistance are required	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00083		Lead titanium trioxide	12060-00-3	C.I. Pigment Yellow 47; Lead titanate; Lead titanate (PbO.TiO <sub>2</sub> ); Lead titanate (PbTiO <sub>3</sub> ); Pigment Yellow 47	In piezoelectric components, ultrasound transducers, gas igniters, ultrasonic motors, ceramic capacitors and other electronic components that use piezoelectric materials	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00084		Lead titanium zirconium oxide	12626-81-2	Lead titanate zirconate; Lead titanate zirconate (Pb(Ti,Zr)O	In piezoelectric components, ultrasound transducers, gas igniters, ultrasonic motors, ceramic capacitors and other	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
				3); Lead titanate zirconate (PbTiO-1ZrO-1O3); Lead titanium zirconium oxide (PbTiO-1ZrO-1O3); Lead zirconate titanate	electronic components that use piezoelectric materials					
00085		Lead oxide sulfate	12036-76-9	Lead sulphate, basic;lead	Heat stabilizer for PVC used for wiring and cabling insulation.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00086		[Phthalato(2-)]dioxotrilead	69011-06-9	1,2-Benzenedi carboxylic acid, lead complex	Heat stabilizer for plastics, for example for wiring and cabling insulation.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00087		Dioxobis(33ndividu)trile ad	12578-12-0	Octadecan oic acid, lead complex	Heat stabilizer for plastics, for example for wiring and cabling insulation.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00088		Fatty acids, C16-18, lead salts	91031-62-8		Heat stabilizer for plastics, for example for wiring and cabling insulation.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00089		Lead dinitrate	10099-74-8	Plumbous nitrate	Heat stabilizer in nylon and polyesters, also used as a coating on paper for photo thermography.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00090		Di-isodecyl phthalate (DIDP)	68515-49-1, 26761-40-0		Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	California Prop 65	All	Intentionally added	<b>Reportable</b>  <b>and</b>  <b>California Proposition 65: Labeling Required</b>
00091		Di-n-hexyl Phthalate (DnHP)	84-75-3	Dihexyl phthalate; DnHP	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Criteria 1: Currently Regulated	California Prop 65; Candidate list for European REACH Regulation No.1907/2006/EC	All	Intentionally added or 0.1 mass% of article	<b>Reportable</b>  <b>and</b>  <b>California Proposition 65: Labeling Required</b>
00092	Hexahydromethyl phthalic anhydride <sup>19</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	None	Primary use is as a hardener for epoxy resins.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00093		Cadmium	7440-43-9		Pigments, anti-corrosion surface treatments, optical glass, heat stabilizers, plating, fluorescent materials, electrodes, low melting solders, electric contacts,	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>

<sup>19</sup> The full description in the REACH Candidate List is "Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry] "

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					zinc plating, photoelectric applications, phosphor coatings, bearing alloys					
00094		Cadmium oxide	1306-19-0		Relay contact; photodiode voltaic cell, Ni/Cd battery	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00095		Dipentyl phthalate (DPP)	131-18-0	DPP; amoil; amylphthalate; amyl phthalate; di-n-phthalate; ai3-00363(usda); diamyl phthalate; dipentyl phthalate; dil-n-amyl phthalate; di-1-pentylphthalate	Plasticizer in PVC and nitrocellulose resin and rubber; in gunpowder, toys, cosmetics, medical devices	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable



ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00097		Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Octanoic acid, pentadecafluoro-, ammonium salt; Ammonium pentadecafluorooctanoate; Ammonium perfluorooctanoate; Ammonium perfluorooctanoate; CXR 1002; DS 101; FC 1015; FC 143; FX 1006; Fluorad FC 143; Perfluorooctanoic acid ammonium salt; Unidyne DS 101	APFO is used as an emulsion stabilizer to manufacture polyvinylidene fluoride (PVDF) and other fluorinated polymers and elastomers and can be found in concentrations up to 1% w/w in these plastics.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00098	4-Nonylphenol, branched and linear, ethoxylated substances with a linear and/or branched alkyl chain with a	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Nonylphenol ethoxylates are used in paints, lacquers and varnishes in concentrations up to 10% w/w of the mixture.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
	carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof									
00099		Cadmium sulphide	1306-23-6		Used in photo-resistors, solar cells and piezoelectric transducers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00100		Trixylyl phosphate	25155-23-1		Used as a plasticizer for vinyl resin, cellulose resin, natural and synthetic rubber. Also, used as a flame retardant.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00102		Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Congo Red	Dye for textiles and paper	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00103	Perfluorooctanoic acid (PFOA) and individual salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.	Criteria 1: Currently Regulated	Norwegian products regulation Section 2-32	Textiles, photographic coatings applied to films, paper or printing plates and other coated	1 microgram/m <sup>2</sup> (as the sum of PFOA)	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
	and esters of PFOA <sup>20</sup>							consumer products.		
00104	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA <sup>21</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.	Criteria 1: Currently Regulated	Norwegian products regulation Section 2-32	All except textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.	0.1 mass% of the part (as the sum of PFOA)	<b>Prohibited</b>
00105		Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	2-imidazolin e-2-thiol; 2-imidazolide nethione	Used as a catalyst in some acrylic adhesive glues which may be used in adhesive tapes (for example, double sided adhesive tapes which may be used to hold the back-light in place in mobile phones)	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00106		1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Diisohexyl phthalate (DiHP)	Used as a plasticizer for certain plastics and rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>

<sup>20</sup> This declarable substance group has a complete list of substances that is specified in the reference substance list

<sup>21</sup> This declarable substance group has a complete list of substances that is specified in the reference substance list

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00107		Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	DINP	Plasticizer in PVC and nitrocellulose resin and rubber; in gunpowder, toys, cosmetics, medical devices	Criteria 1: Currently Regulated	California Prop 65	All	Intentionally Added	<b>Reportable</b>  <b>and</b>  <b>California Proposition 65: Labeling Required</b>
00108		Benzo[a]pyrene (BaP)	50-32-8	BaP; Benzo[def]chrysene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00109		Benzo[e]pyrene (BeP)	192-97-2	BeP	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00110		Benzo[a]anthracene (BaA)	56-55-3	BaA; Benz[a]anthracene	Impurities in carbon black, which is used as coloring agent in	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission	Rubber or plastic parts that come into direct, prolonged or	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					plastics and softener in rubbers		Regulation (EU) No 1272/2013	repetitive skin or oral cavity contact except those for toys or childcare articles		
00111		Chrysen (CHR)	218-01-9	CHR; chrysene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00112		Benzo[b]fluoranthene (BbFA)	205-99-2	BbFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00113		Benzo[j]fluoranthene (BjFA)	205-82-3	BjFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
								childcare articles		
00114		Benzo[k]fluoranthene (BkFA)	207-08-9	BkFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00115		Dibenzo[a,h]anthracene (DBAhA)	53-70-3	DBAhA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% of the plastic or rubber part	<b>Controlled</b>
00116		Benzo[a]pyrene (BaP)	50-32-8	BaP; Benzo[def]chrysene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	<b>Controlled</b>

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00117		Benzo[e]pyrene (BeP)	192-97-2	BeP	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013		0.00005 mass% of the plastic or rubber part	Controlled
00118		Benzo[a]anthracene (BaA)	56-55-3	BaA; Benz[a]anthracene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled
00119		Chrysen (CHR)	218-01-9	CHR; chrysene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled
00120		Benzo[b]fluoranthene (BbFA)	205-99-2	BbFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00121		Benzo[j]fluoranthene (BjFA)	205-82-3	BjFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled
00122		Benzo[k]fluoranthene (BkFA)	207-08-9	BkFA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled
00123		Dibenzo[a,h]anthracene (DBAhA)	53-70-3	DBAhA	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% of the plastic or rubber part	Controlled
00124	Perfluorooctane sulfonates (PFOS)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Antistatic agent for films and plastics	Criteria 1: Currently Regulated	(EC) 850/2004(POPs regulation); Canadian Environmental Protection Act SOR/SOR/2008-178; Japan Law	Textiles or other coated materials.	Intentionally added or 1	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
							concerning the evaluation of chemical substances		microgram/m <sup>2</sup> of coated material <sup>22</sup>	
00125	Perfluorooctane sulfonates (PFOS)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Antistatic agent for films and plastics	Criteria 1: Currently Regulated	(EC) 850/2004(POPs regulation); Canadian Environmental Protection Act SOR/SOR/2008-178; Japan Law concerning the evaluation of chemical substances	All except textiles or other coated materials.	Intentionally added or 0.1 mass% of the part (as the sum of PFOS) <sup>22 23</sup>	<b>Prohibited</b>
00126		Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	Direct Black 38	Used in ink for printers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	<b>Reportable</b>
00127		Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene	68921-45-9	BNST	Lubricating agent in motors, storage drives; lubricant additive (antioxidant/corrosion inhibitor/tarnish inhibitor/scavenger/antiscaling agent), mould release	Criteria 1: Currently Regulated	Prohibition of Certain Toxic Substances Regulations, 2012, CANADA	All	Intentionally Added	<b>Prohibited</b>

<sup>22</sup> Reference Attachment A for clarification of how the two reporting thresholds apply.

<sup>23</sup> Commission Regulation (EU) No 276/2010 defines a concentration limit of 0.1% by weight of tin in the article or part thereof. Likewise Commission Decision 2009/251/EC defines a concentration limit of 0.00001% by weight of DMF in the product or part of the product and Commission Regulation (EC) No 552/2009 defines a concentration limit of 0.1% by weight of PFOS in the semifinished product or article or part thereof. Because no legal definition of part is provided in these legislations, the most potentially restrictive concentration limit is not adequately specified. Therefore, the concentration limit is applied at the level of a material vs. a part to ensure disclosure of the regulated substances for the most basic unit of a part.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					agent; organic chemical for industrial use					
00128		2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1		PVC stabilizer	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00129		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)			PVC stabilizer	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00130		2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	UV-328	UV stabilizer	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00131		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 (EC No. 201-559-5)	68515-51-5, 68648-93-1		Plasticisers, lubricants, adhesives, coatings, cable compounding, polymer foils, PVC compound coatings, paints, thinners, paint removers, fillers, putties, plasters, ink and toners, greases,	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					release products, polymer preparations and compounds, and semiconductors					
00133		1,3-propanesultone	1120-71-4		Electrolyte fluid of rechargeable lithium ion batteries	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00134		2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	UV-327	UV stabilizer	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00135		2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	UV-350	UV stabilizer	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00138		Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	Benzo[a]pyrene; BaP	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00140	Perfluorononan-1-oic-acid and its sodium and ammonium salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Surfactant in the production of the fluoropolymer polyvinylidene fluoride (PVDF)	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00141		4,4'-isopropylidenediphenol	80-05-7	BPA, Bisphenol A	Antioxidant for plasticizer and PVC, ink, paint and adhesive; used as monomer in epoxy resins and plastics	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC); California Prop 65	All	Intentionally added or 0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00142	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Plasticizer, lubricant, corrosion inhibitor	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC)	All	0.1 mass% of article	Reportable
00143	Perfluorohexane-1-sulphonic acid and its salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Impurity in production of PFOS and alternative for PFOS, a surfactant which can be found in protective coatings and adhesives which are resistant to water, dirt, oils etc.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
144		Chrysene	218-01-9; 1719-03-5	Chrysen	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC	All	0.1 mass% of article	Reportable
145		Benz[a]anthracene	56-55-3; 1718-53-2	Benzo[a]anthracene	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC	All	0.1 mass% of article	Reportable
146		Cadmium hydroxide	21041-95-2		It is generated in the anodes of nickel-cadmium and silver-cadmium batteries during the discharge	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
147	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus <sup>™</sup> ") <sup>27, 28</sup>	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	Dechlorane Plus <sup>™</sup>	Flame retardant for electric wire and cable covering material	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No.1907/2006/EC	All	0.1 mass% of article	Reportable
00148		Benzo[ghi]perylene	191-24-2		Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00149		Octamethylcyclotetrasiloxane	556-67-2	D4	Siloxanes are monomers used to manufacture silicones. They may remain as unreacted in silicone polymers and copolymers, used in many electrotechnical equipment product categories.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00150		Decamethylcyclopentasiloxane	541-02-6	D5	Siloxanes are monomers used to manufacture silicones. Residuals may remain in silicone polymers and copolymers.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00151		Dodecamethylcyclohexasiloxane	540-97-6	D6	Siloxanes are monomers used to manufacture silicones. They may remain as unreacted in silicone polymers and copolymers, used in many electrotechnical	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					equipment product categories.					
00152		Disodium octaborate	12008-41-2		Wooden veneer sheets and pressed wooden panels (as a constituent within the starch adhesive), as a flame retardant, as stabilizer in aminoplastic resins, and as a biocide in professional and industrial wood preservation.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00153		Terphenyl, hydrogenated	61788-32-7		Plasticizers, sealants, epoxy adhesives, paints and heat sinks	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00154		Lead	7439-92-1		Steel, aluminum and copper alloys, lead acid batteries, solder and other applications	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00155		2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	4-[2-(4-hydroxyphenyl)-4-methylpentan-2-yl]phenol	White crystalline powder, Raw material for epoxy resins, Raw materials for polycarbonate resin, Thermal paper, Chemicals, Surface coatings, Inks, Adhesives, Synthetic resin additives, Liquid crystal materials, Photosensitizers, Information recording agents,	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					Engineering plastic materials, Electronic functional materials, Optical functional materials; may be used as substitute for BPA					
00156		Benzo[k]fluoranthene	207-08-9		Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00157		Fluoranthene	206-44-0; 93951-69-0		Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00158		Phenanthrene	85-01-8		Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00159		Pyrene	129-00-0; 1718-52-1		Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00160	Perfluorooctanoic acid and its salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PFOA	Greases, textiles and other coated consumer products, and emulsifiers used for manufacturing the Fluoropolymers	Criteria 1: Currently Regulated	[EU] Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021; [Japan] Act on the Evaluation of Chemical	All	0.000025 mass% of PFOA including its salts in article or mixture	Prohibited

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					and fluoroelastomers		Substances and Regulation of Their Manufacture, etc.; [Korea (the Republic of)] Persistent Organic Pollutants Control Act			
00161	PFOA-related substances	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PFOA	Greases, textiles and other coated consumer products, and emulsifiers used for manufacturing the Fluoropolymers and fluoroelastomers	Criteria 1: Currently Regulated	[EU] Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021; [Korea (the Republic of)] Persistent Organic Pollutants Control Act	All	0.0001 mass% of one or a combination of PFOA-related substances, in article or mixture	Prohibited
00162	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	TNPP	Stabilizer and antioxidant in the processing of various plastic materials such as PVC, Polyolefines or rubbers	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00139		Dicyclohexyl phthalate	84-61-7	DCHP	Plasticizer, dye, pigment, paint, ink, manufacture of adhesive, lubricant	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00163		Tetraboron disodium heptaoxide, hydrate	12267-73-1		In wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00164		Diisohexyl phthalate	71850-09-4		Used as a plasticizer for certain plastics and rubbers	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
00165	Perfluorobutane sulfonic acid (PFBS) and its salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PFBS	Impurity in production of PFOS and alternative for PFOS, a surfactant which can be found in protective coatings and adhesives which are resistant to water, dirt, oils etc. May be used as a flame retardant agent for polycarbonate and as an anti-static additive.	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
00166	Cadmium/Cadmium compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigments, anti-corrosion surface treatments, optical glass, heat stabilizers, plating, fluorescent materials, electrodes, low melting solders, electric contacts, zinc plating, photoelectric applications, phosphor coatings, bearing alloys	Criteria 1: Currently Regulated	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575	Video display devices, with a screen size of greater than four inches	0.01 mass% of total Cd in homogenous material	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
00167	Chromium (VI) Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Pigment, paint, ink, catalyst, plating, anticorrosion surface treatment, dye, paint dryer, surface treatment	Criteria 1: Currently Regulated	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575	Video display devices, with a screen size of greater than four inches	0.1 mass% of total Cr+6 in homogenous material	Controlled
00168	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free-machining alloy, free-cutting steels, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, resin stabilizer, plating, metal alloy, resin additives	Criteria 1: Currently Regulated	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575	Video display devices, with a screen size of greater than four inches	0.1 mass% of total Pb in homogenous material	Controlled
00169	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	Criteria 1: Currently Regulated	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575	Video display devices, with a screen size of greater than four inches	0.1 mass% of total Hg in homogenous material	Controlled
00170		Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4		Used as biocides and as stabilisers in plastics. Used also as a catalyst and in the manufacturing of adhesives, sealants, coatings, dyes, polymer preparations, resins and rubber. Can be	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					found in supplied articles.					
171	Halogenated Flame Retardants	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Flame retardant in electronic display	Criteria 1: Currently Regulated	[EU] Commission Regulation (EU) 2019/2021 laying down ecodesign requirements for electronic displays	enclosure and stand of electronic displays, including televisions, monitors and digital signage displays with a screen area greater than 100 square centimeters	0.1 mass% of halogen content in homogeneous material	Reportable
172		Bis(2-(2-methoxyethoxy)ethyl)ether	143-24-8	Tetraglyme ; Tetraethylene glycol dimethyl ether; TetraEGDME; 2,5,8,11,14-pentaoxapentadecane	Solvent in electrolyte in lithium-ion batteries, solvent in other manufacturing process (example: solder flux).	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
173	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of	See Reference Substance worksheet for more details		See Reference Substance worksheet for more details	Stabilisers and catalysts in the production of e.g. plastics and rubber. Used for the manufacture of the follow article categories: plastic products, fabrics, textiles, apparel, and leather. Professional	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
	the fatty acyloxy moiety				application of coatings and inks.					
174	Phenol, Isopropylated Phosphate (3:1) (PIP (3:1))		68937-41-7	PIP (3:1)	Flame retardant and/or plasticizer in polymers such as flexible polyurethane foam and PVC, lubricant, hydraulic fluid, adhesives and sealants. Examples: gasket, wire sleeve, tape.	Criteria 1: Currently Regulated	[USA] Toxic Substances Control Act (TSCA)	All	Intentionally added	Prohibited
175	Cobalt and other minerals/Cobalt and other minerals compounds				Batteries	Criteria 1: Currently Regulated	[EU] Ecodesign requirements (EU) 2021/341 and (EU) 2019/424 pursuant to Directive 2009/125/EC	batteries used in computer servers and online data storage products	Intentionally Added	Prohibited
176	Neodymium/Neodymium compounds				HDDs (Hard Disk Drives)	Criteria 1: Currently Regulated	[EU] Ecodesign requirements (EU) 2021/341 and (EU) 2019/424 pursuant to Directive 2009/125/EC	HDDs used in computer servers and online data storage products	Intentionally Added	Prohibited
177		4,4'-(1-methylpropylidene)bisphe- nol	77-40-7	Bisphenol B; BPB	Antioxidant for plasticizer and PVC, ink, paint and adhesive; used as monomer in epoxy resins and plastics	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
178	Medium-chain chlorinated paraffins (MCCP)	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	MCCP	Flame retardant and / or plasticizer in PVC and rubber, paints and coatings, adhesives and	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					sealants, textiles and fabric		Candidate List for Authorisation			
179	orthoboric acid, sodium salt	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		As flame retardant/adhesive ingredients for wood, paper, cotton and other plant-derived materials; glass manufacturing	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
180	4-Nonylphenol, branched and linear	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	4-Nonylphenol	Paint, glues and polymers	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
181		6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1	DBMC	Adhesives, sealants, lubricants, fuels, hydraulic fluids, metal working, antioxidant/stabilizer for rubber and plastics	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
182	C9-C14 PFCAs and their salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Greases, textiles and other coated products, and emulsifiers used for manufacturing the Fluoropolymers and fluoroelastomers	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.000025 mass% for the sum of C9-C14 PFCAs and their salts in Article or Mixture	Prohibited
183	C9-C14 PFCA-related substances	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Greases, textiles and other coated products, and emulsifiers used for manufacturing the Fluoropolymers and fluoroelastomers	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.000026 mass% for the sum of C9-C14 PFCA-related substances in Article or Mixture	Prohibited

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
184		1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene]	37853-59-1	BTBPE	Additive flame retardant in ABS, PC HIPS, thermoplastics and thermoset resins, coatings	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
185		2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	TBBPA; Tetrabromobisphenol-A	Additive and reactive flame retardant in epoxy resins (printed circuit boards), ABS	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
186		4,4'-sulphonyldiphenol	80-09-1	bisphenol S; BPS	Manufacture of pulp, paper and paper products, textile. Epoxy glues. Substitute for BPA	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
187		Barium diboron tetraoxide	13701-59-2	Barium borate	Used in paints and coatings and in some ceramic electronic components	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
188	Bis(2-ethylhexyl) tetrabromophthalate	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	TBPH; BEHTP; BEH-TEBP	Used as an additive flame retardant and as a plasticiser for flexible polyvinylchloride and for use in wire and cable insulation, film and sheeting, carpet backing, coated fabrics, wall coverings, sealant and adhesives	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
189		Isobutyl 4-hydroxybenzoate	4247-02-3	isobutylparaben	Used in the manufacture of substances and in coating products, fillers, putties, plasters, modelling	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					clay, and inks and toners. Used as an anti-microbial agent					
190		Melamine	108-78-1	2,4,6-Triamino-1,3,5-triazin	A monomer combined with formaldehyde and other agents to produce melamine resins. Used as an intermediate chemical for the production of flame retardants and as flame retardant itself. Used in coatings and inks.	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
191	Perfluoroheptanoic acid and its salts	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PFHpA	Greases, textiles and other coated products, and emulsifiers used for manufacturing the Fluoropolymers and fluoroelastomers. Used as a stain or water repellent	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
192		reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine			Heat transfer fluid	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
193	Per- and poly-fluoroalkyl substances (PFAS)	Please see Reference Substance List (RSL) for more details			Coatings for electronic components, wires and cables; plastics; adhesives;	Criteria 1: Currently Regulated	[USA Maine] Maine Public Law, Chapter 447 (LD 1503,	All	Intentionally added	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					lubricants; membranes; elastomers; gaskets; cleaning chemicals; photolithography; insulation material; and flame retardants		2021) PFAS regulation			
194		bis(4-chlorophenyl) sulphone	80-07-9	BPFE; 4,4'-Dichlorodiphenyl sulfone	Additive for thermoplastic resin (fluoroethane) and fluoropolymers for rubber production	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
195		diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	DPTPO; Lucirin TPO	Photopolymerization initiator; Coating material/paint; UV-curable resin; Resin additive; Silk screen printing ink; Cable assembly (adhesive); Surface treatment marking ink; Solder mask (photoinitiator)	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
196		2,4,6-tri-tert-butylphenol	732-26-3	2,4,6-TTBP	May be used either as an intermediate to or directly as an antioxidant/stabiliser in plastic materials	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
197		2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)	3147-75-9	UV-329	UV absorber/protection agent which exhibits excellent compatibility with a wide range of plastics, particularly demonstrating high effectiveness in coatings, PVC, and unsaturated	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					polyester. Can be used alone or in combination with other functional stabilizers and additives. Typical applications of UV-329 include air care products, coating products, adhesives and sealants, lubricants and greases, polishes and waxes, and polycarbonate covers, such as those for sensors and lights. Typical addition concentration is 0.1-3%. May also be used up to 5% in organic solderability preservative (OSP) applied to PCBs					
198		2-(dimethylamino)-2-[[4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4		Photo-initiator for UV inks and coatings. Typical applications include displays, coatings, inks, resists. In all applications substance is reacted other than where it may be present as a mixture >0.1% in ink/toner that has not yet been cured (e.g. ink/toner in a cartridge)	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
199		Bumetrizole (UV-326)	3896-11-5	UV-326	UV protection agent. Weatherability enhancer for materials such as polyvinyl chloride, polyethylene, polypropylene, acrylic resins, PVB, styrene-based resins. It is suitable for use with polyolefins and cold-cured polyesters. Formulations are used for coatings, inks and toners, textile dyes and impregnation products, production of polymers like rubber production and processing and rigid foams and flexible foams, adhesives and sealants, lubricants, and greases. History of use in thermoplastic resins for cable and speaker gaskets	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable
200	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	See Reference Substance worksheet for more details		OAPP	Protective paints and coatings, lacquers and varnishes (e.g. anti-corrosion) for ships and large industrial equipment, adhesives and sealants, printing	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold <sup>1</sup>	Intel Requirement
					inks, rubber formulations, polymer production, construction materials, antioxidant in rubber					
201	Pentachlorophenol and its salts and esters	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details	PCP	Impurity in production of pigments	Criteria 1: Currently Regulated	[EU] Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	Intentionally added or 0.0005 mass% of PCP including its salts and esters in article or mixture	<b>Prohibited</b>

<sup>27</sup> This declarable substance group has a complete list of substances that is specified in the reference substance list covering any of its individual anti- and syn-isomers or any combination thereof

<sup>28</sup> Dechlorane Plus is a trademarked name that is used here because this trademarked name has been directly referenced by a Government Authority in a substance restriction regulation. IEC is not endorsing the use or restriction of this trade-named product.

### 3.3 Intel EU RoHS Requirements and Acceptable Exemptions

RoHS 2 Directive prohibits the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE), and 4 phthalates listed in table 3 in electrical and electronic equipment (EEE) put on the market. Certain applications containing lead, mercury, cadmium or hexavalent chromium should continue to be exempted from the prohibition since the elimination of these hazardous substances in those specific applications is still scientifically or technically impracticable.

Table 3

<b>RoHS Restricted Substance</b>	<b>Maximum Concentration Value (MCV) Threshold (in homogenous material*)</b>
Lead (Pb)	< 0.10% by weight
Cadmium (Cd)	< 0.01% by weight
Mercury (Hg)	< 0.10% by weight
Hexavalent Chromium (Cr+6)	< 0.10% by weight
Polybrominated Biphenyls (PBB)	< 0.10% by weight
Polybrominated Biphenyl Ethers (PBDE)	< 0.10% by weight
Bis(2-Ethylhexyl) phthalate (DEHP)*	< 0.10% by weight
Benzyl butyl phthalate (BBP)*	< 0.10% by weight
Dibutyl phthalate (DBP)*	< 0.10% by weight
Diisobutyl phthalate (DIBP)*	< 0.10% by weight

\* Directive 2015/863/EU restricts 4 phthalates and is effective on July 22, 2019 for all electrical and electronic equipment.

Intel's position is not to rely on exemptions and it expects its suppliers to work within their own supply chains to eliminate materials claiming exemptions. However, Intel acknowledges that it may not be technically feasible, generally available or cost effective to source materials that do not rely on an exemption, and that renewal dossiers may be filed with the EU to extend specific exemption deadlines. As a result, Intel has worked closely with the cross-industry Strategic Management Team during the application process to develop a strategy to prioritize both Intel's and its suppliers' efforts in eliminating reliance on exemptions.

### 3.4 EU REACH Requirements

Any REACH Candidate List Substance of Very High Concern (SVHC) above 0.1 wt% in an article requires reporting. Reporting to Intel of the concentration per article is required for products and packaging. On September 10, 2015, the European Union (EU) Court of Justice issued a ruling regarding the interpretation of an article, indicating that individual articles incorporated as components of a complex product are subject to REACH reportable obligation if they contain any SVHC at a concentration above 0.1 wt% at the component level. Suppliers must be sure to follow the expectations of the EU Court of Justice ruling and notify Intel if a SVHC is present above 0.1 wt% at the article level. See the ECHA link in the Reference section for the entire REACH Candidate List of SVHCs. Intel may work with suppliers to identify and qualify technically feasible alternatives. Suppliers must monitor the EU REACH Candidate List of Substances for any SVHCs used in their manufacturing operations in the EU and communicate any potential issues that would cause disruption of supply of materials/parts to Intel.

### 3.5 Battery Content Restrictions

The following materials are prohibited for use in batteries. Note: Batteries are also in scope of REACH regulations. See the full, IEC 62474 declarable substances list for reporting obligations.

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold	Intel Requirement
00011	Cadmium/ Cadmium compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		NiCd accumulators	Criteria 1: Currently Regulated	2006/66/EC EU Battery Directive and Korean Quality Management and Safety Control of Industrial Products Act	Batteries	0.001% by weight of battery	Controlled
00025	Lead/Lead Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Zinc carbon batteries, alkaline button cells	Criteria 1: Currently Regulated	2006/66/EC EU Battery Directive; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries	Batteries	0.004 mass% of battery	Controlled
00030	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Silver-oxide button cells, alkaline batteries, zinc carbon batteries	Criteria 1: Currently Regulated	Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"; Korea: Law on quality management and control of safety of industrial products Battery regulation; 2006/66/EC EU Battery Directive; New York Env Law § 27-0719 Battery Management and Disposal	Batteries	Intentionally added or 0.0001 mass% of battery	Controlled

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold	Intel Requirement
000132	Mercury/Mercury Compounds	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Silver-oxide button cells, alkaline batteries, zinc carbon batteries	Criteria 1: Currently Regulated	Canadian Products Containing Mercury Regulations (SOR/2014-254)	Batteries	0.0005 mass% of total Hg in homogenous material	
00033	Perchlorates	See Reference Substance worksheet for more details	See Reference Substance worksheet for more details		Lithium batteries; coin cell batteries	Criteria 1: Currently Regulated	California Assembly Bill No. 826 - Perchlorate Contamination Prevention Act; implemented July 1, 2006	All	6 x 10 <sup>-7</sup> mass% of battery or product part	Reportable
00058		Bis(2-methoxyethyl) ether	111-96-6		Electrolyte in lithium batteries	Criteria 1: Currently Regulated	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)	All	0.1 mass% of article	Reportable
00066		1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Triglyme, TEGDME, Triethylene glycol dimethyl ether, Ansul Ether 161, DMTG, Ethane 1,2-bis(2-methoxyethoxy)-, Glyme 4, Hisolve MTM, Methyltriglyme, NSC 66400	Solvent may be used in battery electrolytes for lithium batteries. May be in found in printing inks.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00068		1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	1,2-Ethanediol, dimethyl ether; 2,5-Dioxahexane; DME;	Solvent used in battery electrolytes for lithium batteries. May be in found in printing	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold	Intel Requirement
				DME (glycol ether); Dimethyl Cellosolve ; Ethylene dimethyl ether; Glycol dimethyl ether; Glyme; Hisolve MMM; Monoethylene glycol dimethyl ether; Monoglyme; NSC 60542; $\alpha,\beta$ -Dimethoxyethane	inks and paint strippers					
00074		1,2-Diethoxyethane	629-14-1	Diethyl glycol; Ethylene Glycol Diethyl Ether	Solvent used in electrolytes for lithium batteries.	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00094		Cadmium oxide	1306-19-0		Relay contact; photodiode voltaic cell, Ni/Cd battery	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
00133		1,3-propanesultone	1120-71-4		Electrolyte fluid of rechargeable lithium ion batteries	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable

ID	Substance Group	Specific Substance	CAS number	Common Synonyms	Typical Applications	Basis	Basis Description	Reportable Applications	Reporting Threshold	Intel Requirement
00154		Lead	7439-92-1		Steel, aluminum and copper alloys, lead acid batteries, solder and other applications	Criteria 1: Currently Regulated	Candidate list for European REACH Regulation No. 1907/2006/EC	All	0.1 mass% of article	Reportable
172		Bis(2-(2-methoxyethoxy)ethyl)ether	143-24-8	Tetraethylene glycol dimethyl ether; TetraEGDME; 2,5,8,11,14-pentaoxapentadecane	Solvent in electrolyte in lithium-ion batteries, solvent in other manufacturing process (example: solder flux).	Criteria 1: Currently Regulated	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation	All	0.1 mass% of article	Reportable
175	Cobalt and other minerals/Cobalt and other minerals compounds				Batteries	Criteria 1: Currently Regulated	[EU] Ecodesign requirements (EU) 2021/341 and (EU) 2019/424 pursuant to Directive 2009/125/EC	batteries used in computer servers and online data storage products	Intentionally Added	Prohibited

## 3.6 Packaging Requirements

### 3.6.1 Packaging Content Restrictions

Intel expects all packaging to be compliant to various packaging-specific regulations and legislations. The following Intel packaging declarable substance list table (table A) and French Mineral Oil table (table B) is provided as reference for some materials that prohibited for use in product packaging materials used for transport, etc. (e.g. trays, reels, tubes, boxes, foam materials, etc.). Additionally, Intel expects suppliers/ODMs to review current regulations and standards outlined in the Intel Workmanship Standard- Packaging Quality Criteria Document 656207.

Intel establishes three criteria that determine whether substances shall be declared in packaging (shipping materials). The resulting declarable substance list is based on these criteria which the industry has determined justify disclosure when these material/substances are present in packaging materials in amounts that exceed their specified threshold levels.

#### Criteria 1: R (Regulated)

Substances that are subject to enacted legislation that (a) prohibits their use; or (b) restricts their use; or (c) requires reporting or results in other regulatory effects (e.g. labeling) and where the substance-specific effective date is currently in effect or scheduled to go into effect within the next 24 months.

#### Criteria 2: A (For Assessment Only)

Substances that are likely to be subject to enacted legislation where the substance-specific effective dates of the regulatory requirements are uncertain.

#### Criteria 3: I (For Information Only)

Substances that are not regulated but where there is a recognized market requirement for reporting their content in packaging. Reporting is used to facilitate company assessment regarding widely adopted industry environmental agreements or standards.

### 3.6.2 Intel-Specific Restrictions:

Also refer to the 3.2.2 for Intel-specific requirements

Table A – Packaging Declarable Substance List

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
Arsenic Compounds	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006;	Wood	Intentionally added	Wood preservative	15/8/2011	(i)	Prohibited
Asbestos	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006;	All	Intentionally added	Insulator, filler, pigment, paint, talc,	15/8/2011	(i)	Prohibited
Azocolourants and azodyes which form certain aromatic amines <sup>24</sup>	not applicable <sup>25</sup>	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006;	Textiles and leather	0.003% by weight (30 ppm) of the finished textile/leather packaging item <sup>26</sup>	Textile, pigment, dye, colorants	15/8/2011	(i)	Controlled
4-[[4-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	CAS# 548-62-9 EC# 208-953-6	A	ECHA Registry of Intentions 25.10.2010	All	0.1% by weight (1000 ppm) of the packaging item	Colorant in plastics or paints	15/8/2011	(i)	Reportable

<sup>24</sup> The EU's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes

<sup>25</sup> The EU's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes

<sup>26</sup> The EU's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes<sup>27</sup>. Specific REACH SVHCs containing lead and chromium are not individually listed in Table A since the EU Packaging directive limit of 0.01% (100 ppm) total metals was determined to be the lowest reporting threshold.

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
Boric Acid	See Annex B	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	All	0.1% by weight (1000 ppm) of the packaging item	In wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative, as flame retardant in wood, cotton and other plant derived material	15/8/2011	(i)	Reportable
Cobalt and other minerals dichloride (CoCl <sub>2</sub> )	CAS# 7646-79-9 EC# 231-589-4	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 13.01.2010)	All	0.1% by weight (1000 ppm) of the packaging item	Humidity Indicator Cards (HIC), moisture indicator in silica gel	15/8/2011	(i)	Prohibited
Diarsenic pentoxide	CAS# 1303-28-2 EC# 215-116-9	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	0.1% by weight (1000 ppm) of the packaging item	Biocide, metal refining	15/8/2011	(i)	Reportable
Diarsenic trioxide	CAS# 1327-53-3 EC# 215-481-4	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	0.1% by weight (1000 ppm) of the packaging item	Biocide, metal refining	15/8/2011	(i)	Reportable
Dibutyltin (DBT) compounds	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	All	0.1% by weight (1000 ppm) of tin of the packaging item	Plasticizers, paper coatings, inks, stabilizer for PVC, curing catalyst for	15/8/2011	(i)	Prohibited

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
						silicone resin and urethane resin			
Diocetyl tin (DOT) compounds	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Textiles that come in contact with skin	0.1% by weight (1000 ppm) of tin of the packaging item	Textiles	15/8/2011	(i)	Controlled
Dimethyl fumarate	CAS# 624-49-7	R	COMMISSION DECISION 2009/251/EC	All	0.00001% by weight (0.1 ppm) of the packaging item	Desiccating agent, mildew-proofing agent	15/8/2011	(i)	Prohibited
Disodium tetraborate, anhydrous	See Annex B	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	All	0.1% by weight (1000 ppm) of the packaging item	In wood veneers/pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative,	15/8/2011	(i)	Reportable
Formaldehyde	CAS# 50-00-0	R	Austr-a - BGB I 1990/194: Formaldehydverordnung, §2, 12/2/1990 Lithuanian Hygiene Norm HN 96:2000	Textiles	0.0075% by weight (75 ppm) of textile item	Textiles	15/8/2011	(i)	Controlled

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
Specific Heavy Metals <sup>27</sup> Cd/Cd Compounds; Pb/Pb Compounds; Hg/Hg Compounds; CrVI Compounds	See Annex B	R	EU 94/62/EC Directive;  US State Toxics in Packaging (TIP)	All	Intentionally added or 0.01% by weight (100 ppm) of the sum of Cd, Hg, Pb & CrVI in the material <sup>28 29</sup>	Pigment, paint, stabilizer for PVC	15/8/2011	(i)	Prohibited
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	See Annex B	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	0.1% by weight (1000 ppm) of the packaging item	Flame retardant mainly used for expanded polystyrene (PS), polyurethane (PU) and some types of			Reportable
Methyl bromide	CAS# 74-83-9	I	ISPM-15	Fumigation of wood pallets within EU	Intentionally Added	Wood pallets			Controlled
Butyl benzyl phthalate (BBP)	CAS# 85-68-7 EC# 201-622-7	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	0.1% by weight (1000 ppm) of the packaging item  Intentionally Added <sup>30</sup>	Plasticizer, dye, pigment, paint, ink, adhesive	15/8/2011	(i)	Reportable

<sup>27</sup> Specific REACH SVHCs containing lead and chromium are not individually listed in Table A since the EU Packaging directive limit of 0.01% (100 ppm) total metals was determined to be the lowest reporting threshold.

<sup>28</sup> See Attachment A for clarification of how the two reporting thresholds apply.

<sup>29</sup> US State Toxics in Packaging Clearinghouse web site clarifies that ink is considered a separate "packaging component" so the threshold limit for reporting was set at material vs. packaging item.

<sup>30</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

Formaldehyde in hardwood plyboard with veneer core – 0.05 ppm (measured as gaseous emission from product);

For Nickel in applications of prolonged skin contact - 0.5 micrograms/sq cm/week per DIN EN 1811;

Radioactive substances -a dose rate exceeding 1 µSv h<sup>-1</sup> at a distance of 0,1 m.

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
Bis(2-ethylhexyl) phthalate (DEHP)	CAS# 117-81-7 EC# 204-211-0	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)  US/CA Proposition 65	All	0.1% by weight (1000 ppm) of the packaging item  Intentionally Added <sup>31</sup>	Plasticizer, dye, pigment, paint, ink, adhesive	15/8/2011	(i)	Reportable
Dibutyl phthalate (DBP)	CAS# 84-74-2 EC# 201-557-4	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	0.1% by weight (1000 ppm) of the packaging item  or  Intentionally	Plasticizer, dye, pigment, paint, ink, adhesive	15/8/2011	(i)	Reportable
Diisobutyl phthalate (DIBP)	CAS# 84-69-5 EC# 201-553-2	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization)	All	0.1% by weight (1000 ppm) of the packaging item	Plasticizer, dye, pigment, paint, ink, adhesive	15/8/2011	(i)	Reportable
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	CAS# 71888-89-6 EC# 276-158-1	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC)	All	0.1% by weight (1000 ppm) of the packaging item	Plasticizer	15/8/2011	(i)	Reportable

California (CA) Proposition 65: phthalates below Safe Harbor Levels (link to safe harbor: <http://oehha.ca.gov/prop65/getNSRLs.html>)<sup>31</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

<sup>31</sup> Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:

Formaldehyde in hardwood plyboard with veneer core – 0.05 ppm (measured as gaseous emission from product);

For Nickel in applications of prolonged skin contact - 0.5 micrograms/sq cm/week per DIN EN 1811;

Radioactive substances -a dose rate exceeding 1 µSv h<sup>-1</sup> at a distance of 0,1 m.

California (CA) Proposition 65: phthalates below Safe Harbor Levels (link to safe harbor: <http://oehha.ca.gov/prop65/getNSRLs.html>)

<sup>32</sup> See footnote 39 (Regulatory thresholds...) <sup>33</sup> See Attachment A for clarification of how the two reporting thresholds apply

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
(Diisooheptyl phthalate DHP)			for authorization 20.06.2011)						
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (Di-(heptyl, nonyl, undecyl) phthalate – DHNUP)	CAS# 68515-42-4 EC# 271-084-6	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2011)	All	0.1% by weight (1000 ppm) of the packaging item	Plasticizer	15/8/2011	(i)	Reportable
Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	CAS# 3846-71-7	R	Japan Chemical Substances Control Law (CSCL "Kashinho"), Law No. 117 of 1973	All	Intentionally added	Adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers	15/8/2011	(i)	Prohibited
Polychlorinated biphenyls (PCBs) and specific substitutes	See Annex B	R	Japan Chemical Substances Control Law (CSCL "Kashinho"), Law No. 117 of 1973	All	Intentionally added	Plasticizers, adhesives, putty, caulking, sealing, fillers, paints (excluding water-based paint), printing ink, and carbonless copying paper	15/8/2011	(i)	Prohibited
Polychlorinated naphthalenes (more than 3 chlorine atoms)	See Annex B	R	Japan Chemical Substances Control Law (CSCL "Kashinho"), Law No. 117 of 1973	All	Intentionally added	Antiseptics for wood, insecticide, mildew repellent, paints	15/8/2011	(i)	Prohibited
Polychlorinated terphenyls (PCTs)	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006	All	0.005% by weight (50 ppm) in material	Plasticizers, adhesives, putty, caulking, sealing fillers, paints (excluding water-based paint),	15/8/2011	(i)	Prohibited

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
						printing ink, and carbonless copying paper			
Polyvinyl chloride (PVC)	See Annex B	I	IEEE1680 (EPEAT: Electronic Product Environmental Assessment Tool); ECMA-370, 8.2.1; Blue Angel; Nordic Swan	All	0.1% by weight (1000 ppm) of the packaging item	Insulator, transparency, sheath material, tamper-proof labels, clam-shell packs	15/8/2011	(i)	Reportable
Shortchain chlorinated paraffins (C10 – C13)	See Annex B	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008), Norway Product Regulations FOR-2004-06-01-922; Swiss Ordinance on Reduction of Risk from Chemical Products	All	0.1% by weight (1000 ppm) of the packaging item	Plasticizer for PVC, flame retardant	15/8/2011	(i)	Prohibited
Tetraboron disodium heptaoxide, hydrate	CAS# 12267-73-1 EC# 235-541-3	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	All	0.1% by weight (1000 ppm) of the packaging item	In wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative,	15/8/2011	(i)	Reportable

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
Tri-substituted organostannic compounds	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010 Japan Law concerning the evaluation of chemical substances  Norwegian product regulation	All	Intentionally added or 0.1% by weight (1000 ppm) of tin of the packaging item <sup>33</sup>	Antibacterial and antifungal agents, paint, pigment	15/8/2011	(i)	Prohibited
Tributyl tin oxide (TBTO)	CAS# 56-35-9 EC# 200-268-0	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008); Japan Chemical Substances Control Law (CS"L "Kashi"ho"), Law No. 117 of 1973	All	Intentionally added or 0.1% by weight (1000 ppm) of the packaging item <sup>33</sup>	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	15/8/2011	(i)	Prohibited
Triethyl arsenate	CAS# 15606-95-8 EC# 427-700-2	R	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization	All	0.1% by weight (1000 ppm) of the packaging item	Flame retardant, biocide	15/8/2011	(i)	Reportable
Decabromodiphenyl ether (decaBDE)	CAS# 1163-19-5 EC# 214-604-9	Intel-Specific Requirement	REACH (Candidate list of SVHC for authorization)	All	0.1% by weight (1000 ppm) of the packaging item	Tape and Reel	-	-	Reportable

<sup>33</sup> See Attachment A for clarification of how the two reporting thresholds apply

Substance / Category	CAS #/ EC#	Criteria	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Latest Revision	Revision type	Intel Requirement
MOSH (C16-35)	-	R	France: Substances Contained in Mineral Oils (MOAH, MOSH) Prohibited for Use on Packaging and Printing	Packaging and Printing Materials	0.1% by weight (1000 ppm) of the printing ink (2025)	Packaging offset ink	April 2022	-	Prohibited
MOAH (1-7 aromatic cycles)	-	R	France: Substances Contained in Mineral Oils (MOAH, MOSH) Prohibited for Use on Packaging and Printing	Packaging and Printing Materials	1% by weight (10000 ppm) of the printing ink (2023)	Packaging offset ink	April 2022	-	Prohibited
MOAH (1-7 aromatic cycles)	-	R	France: Substances Contained in Mineral Oils (MOAH, MOSH) Prohibited for Use on Packaging and Printing	Packaging and Printing Materials	0.1% by weight (1000 ppm) of the printing ink (2025)	Packaging offset ink	April 2022	-	Prohibited
MOAH (3-7 aromatic cycles)	-	R	France: Substances Contained in Mineral Oils (MOAH, MOSH) Prohibited for Use on Packaging and Printing	Packaging and Printing Materials	0.0001% by weight (1 ppm) of the printing ink (2025)	Packaging offset ink	April 2022	-	Prohibited

- 1 The EU's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the aromatic amines listed in Annex B. The threshold level given applies to these amines, not to the azocolourants and azodyes
- 2 Specific REACH SVHCs containing lead and chromium are not individually listed in Table A since the EU Packaging directive limit of 0.01% (100 ppm) total metals was determined to be the lowest reporting threshold.
- 3 See Attachment A for clarification of how the two reporting thresholds apply.
- 4 US State Toxics in Packaging Clearinghouse web site clarifies that ink is considered a separate "packaging component" so the threshold limit for reporting was set at material vs. packaging item

### 3.7 Responsible Minerals Requirements

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, Intel must conduct an annual Reasonable Country of Origin Inquiry (RCOI) whenever conflict minerals are necessary to the functionality or production of a product Intel manufactures. The RCOI will be conducted in compliance with international guidelines, specifically *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (OECD Guidance), to determine whether any conflict minerals in Intel products originated in a covered country, conflict-affected and high-risk area (CAHRA), or are from recycled or scrap sources. Additionally, Intel is committed to following all emerging global regulations, many of which require due diligence to be conducted in the supply chain for human rights and ESG issues. Since this due diligence is not specific to a particular mineral or geography, Intel continues to conduct risk assessments and may ask our suppliers to provide information, including RCOI, for minerals other than conflict minerals.

For the purposes of this section only, definitions in Section 4.2 and the following definitions apply:

**“Covered Country”** refers to the Democratic Republic of Congo (DRC) or one of its adjoining countries, such as Angola, Burundi, Central African Republic, the Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia.

**“Conflict-Affected and High-Risk Area (CAHRA)”** are identified by the presence of armed conflict, widespread violence or other risks of harm to people as defined by OECD Guidance.

**“Supplier”** means any party who supplies any item or service to Intel.

- A. Where applicable, supplier will assist Intel in conducting due diligence on source and chain of custody of the Conflict Minerals or other minerals requested, including cobalt, upon request in accordance to a nationally or internationally recognized due diligence framework.
- B. To assist Intel in complying with Intel's obligations in regards to Responsible Sourcing as defined and outlined in our Responsible Minerals Sourcing Policy (available at the link provided in the References section of this specification <http://www.intel.com/content/www/us/en/policy/policy-conflict-minerals.html>), Suppliers must, at a minimum:
  - i. Maintain a Responsible Mineral sourcing policy, make that policy available on the Supplier's public website and communicate that policy throughout the Supplier's supply-chain. If Supplier does not have a public website, Supplier shall provide that policy to Intel upon request. Key aspects of a Responsible Minerals sourcing policy may include:
    - a. A commitment that it will not purchase materials that directly or indirectly finance or benefit armed groups in the Covered Countries or contribute to human rights violations in CAHRAs as defined in Annex II of OECD Guidance.
    - b. Whenever applicable, Supplier will adopt the *OECD Model Supply Chain Policy for a Responsible Global Supply Chain of Minerals from Conflict-Affected and High Risk Areas* found in the most recent version of the OECD Guidance.
  - ii. Assist Intel in performing an annual RCOI. In doing so and upon Intel's request, provide minerals information for Supplier's product(s) provided to Intel. The Supplier's declaration must:
    - a. Identify any Conflict Minerals and/or Cobalt and other minerals specified contained in the Supplier's products provided to Intel including those the Supplier knows or may have reason to believe originated within the Covered

- Countries or CAHRAs and are not or have reason to believe may not be from recycle or scrap sources.
- b. Identify all smelters and/or refiners that processed the Conflict Minerals and/or Cobalt and other minerals specified contained in Supplier's products provided to Intel.
  - c. Be provided to Intel using the Conflict Minerals Reporting Template (CMRT), Extended Minerals Reporting Template (EMRT), and Pilot Reporting Template (PRT).
- iii. Use smelters or refiners who processed the Conflict Minerals, and/or Cobalt contained in the Supplier's products provided to Intel that have received a conformant designation from the Responsible Minerals Initiative (RMI) or other independent third party audit programs such as London Bullion Market Association's Responsible Gold Programme and the Responsible Jewelry Council's Chain-of-Custody Certification program.
  - iv. Immediately notify Intel in writing (by email sent to [conflict.mineral.free@intel.com](mailto:conflict.mineral.free@intel.com)) if any Supplier's products containing Conflict Minerals and/or are not Responsibly Sourced.
- C. Suppliers must retain accurate records of its supply chain activities related to Conflict Minerals for a minimum of five years. The purpose of retaining these records is to provide any Intel audit, or third party audit, with traceability and the identification of actors in Supplier's supply chain. At a minimum, such records must include, whenever applicable,
- i. Identity of Supplier's products provided to Intel that contain Conflict Minerals
  - ii. Identity of the smelter and refiner facilities used to process the Conflict Minerals in the Supplier's products provided to Intel that contain said minerals
  - iii. Identify whether the Conflict Minerals contained in the Supplier's products provided to Intel originated from within the Covered Countries or CAHRAs
  - iv. Description of the Supplier's efforts to determine the mine or location of origin of Conflict Minerals contained in Supplier's products provided to Intel, with the greatest possible specificity.
- D. Where applicable, Supplier will assist Intel to ensure that Intel's obligations and compliance objectives are met, including allowing Intel, or a third party chosen by Intel, to audit the Supplier for Supplier's compliance with any regulations or policies relating to Responsible Mineral Sourcing.
- E. If the Dodd-Frank Wall Street Reform and Consumer Protection Act Section on Conflict Minerals, Regulation (EU) 2017/821, or any other mineral sourcing regulation is applicable to any Supplier, that Supplier represents and warrants to Intel that it is in compliance with the applicable regulation(s).
- F. A Supplier who uses Conflict Minerals and/or Cobalt and other minerals in the products or materials they sell must determine whether they can meet the requirements set forth in this Responsible Minerals Reporting section. Should Supplier be unable to meet such requirements, Supplier will immediately begin steps to meet these requirements.
- G. Should Supplier fail to comply with the terms of this Responsible Minerals Reporting section for any reason, Intel reserves the right to terminate or suspend any agreement with such non-compliant Supplier, without any liability whatsoever.
- H. Whenever applicable, Intel will include Responsible Minerals in our existing audit and customer disclosure programs. Supplier will allow Intel to share audit and other relevant

due diligence information provided by the Supplier with Intel's customers, industry trade groups, the general public, or government regulators.

## 3.8 Future Material Restriction and/or Reporting

### 3.8.1 Manufacturing Materials Restriction Requirements:

Suppliers are being asked to replace or substitute Chemicals of High Concern (CoHC) that are deemed to be easily replaced with a "safer" alternative in certain applications (e.g. benzene in cleaning applications), as denoted in Section 3.1 and 3.8.1.1. Alternatively, suppliers may be required to provide a technical justification for the ongoing use of such chemicals – e.g., "safer" alternatives have failed to work and to show that there are no exposures to workers. Intel supports industry initiatives that work toward the elimination of worker exposure to chemicals such as the CEPN Zero Exposure Program.

#### 3.8.1.1 Priority Chemicals Elimination and Substitution

There are nine chemicals (see table in section 3.1) selected as current CEPN Priority Chemicals per the following criteria:

- a. Meets CEPN High Hazard Criteria
- b. Used as a solvent in cleaning products that may cause employee exposure
- c. Some indication of use within the electronics industry
- d. Potentially viable safer alternatives available

#### 3.8.1.2 Process Chemical Data Collection

Selected suppliers will be asked to use an excel-based CEPN developed Process Chemicals Data Collection (PCDC) Tool which provides a standardized format for collecting and mapping chemical data related to process chemicals usage. This tool is built with data security. All data will be held securely and confidentially in a third-party data platform. Intel will notify separately to all in-scope suppliers of this requirement with more detail instructions.

### 3.8.2 Identify Chemicals of High Concern (CoHCs)

CoHCs selected for replacement are identified due to a variety of reasons, such as their potential negative impact to human health or the environment, regulatory use restrictions, internal company chemical policies, or the chemical being designated as hazardous. The detailed CoHC selection process is out of the Scope of this document. The hazards and exposure potential of the COHCs will be compared to the potential alternatives to ensure a safer material is selected.

The CoHCs can be prioritized based on regulations of requirements that are relevant for your organization. The prioritization criteria are typically derived from the following inputs:

- Emerging Legislation
- Environmental Health and Safety (EHS) requirements
- Alternatives made available by suppliers
- Customer requests
- Competitor action
- Non-government organization (NGO) pressure

Intel will communicate updated supplier manufacturing materials restriction requirements as the RBA continues to align on industry expectations. Any requirements will be incorporated in a future revision of this specification.

## 4.0 References

### 4.1 List of References

Reference	Location
Chemical Selection Guidelines	<a href="https://supplier.intel.com/static/EHS/materials.htm">https://supplier.intel.com/static/EHS/materials.htm</a>
European Chemical Agency (ECHA) REACH Candidate List SVHC	<a href="http://echa.europa.eu/candidate-list-table">http://echa.europa.eu/candidate-list-table</a>
IEC 62474	<a href="http://std.iec.ch/iec62474">http://std.iec.ch/iec62474</a>
Intel Supplier Portal	<a href="https://supplier.intel.com/SupplierHub/App/UserHome.aspx">https://supplier.intel.com/SupplierHub/App/UserHome.aspx</a>
Intel Supplier Portal Environmental Site	<a href="https://www.intel.com/content/www/us/en/supplier/environment/product-compliance/overview.html">https://www.intel.com/content/www/us/en/supplier/environment/product-compliance/overview.html</a>
OECD Guidance	<a href="http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf">http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf</a>
Responsible Minerals Initiative (RMI)	<a href="http://www.responsiblemineralsinitiative.org/">http://www.responsiblemineralsinitiative.org/</a>
Responsible Minerals Assurance Process (RMAP)	<a href="http://www.responsiblemineralsinitiative.org/responsible-minerals-assurance-process/">http://www.responsiblemineralsinitiative.org/responsible-minerals-assurance-process/</a>
Intel's Responsible Minerals Sourcing Policy	<a href="http://www.intel.com/conflictfree">http://www.intel.com/conflictfree</a>
Conflict Minerals Reporting Template (CMRT)	<a href="http://www.responsiblemineralsinitiative.org/conflict-minerals-reporting-template/">http://www.responsiblemineralsinitiative.org/conflict-minerals-reporting-template/</a>
Responsible Minerals Inbox	<a href="mailto:conflict.mineral.free@intel.com">conflict.mineral.free@intel.com</a>
California Proposition 65	<a href="http://www.oehha.ca.gov/prop65.html">http://www.oehha.ca.gov/prop65.html</a>
EU RoHS European Law	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011L0065">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011L0065</a>

### 4.1 Definitions

Term	Definition
Homogeneous Material	Per European Union RoHS Recast Directive 2011/65/EU, homogenous material means one material of uniform composition throughout or a material, consisting of a combination of materials, that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes
Conflict Minerals	"Conflict Minerals" means cassiterite, columbite-tantalite, gold, and wolframite; or their derivatives including tantalum, tin, and tungsten; and, any other mineral, derivative, or ore that the Organization for Economic Co-operation and Development (OECD), United States Securities and Exchange Commission (SEC), United States government, or United

Term	Definition
	States Secretary of State considers to be directly or indirectly financing conflict in the Covered Countries.
Covered Countries	“Covered Countries” means the Democratic Republic of Congo (DRC) and any adjoining country that shares an internationally recognized border with the DRC.
Responsibly Sourced	Sourcing done in an ethical and sustainable manner that safeguards the human rights of everyone in our global supply chain (the scope of human rights issues of primary concern are detailed the OECD Guidance Annex II)
Reasonable Country of Origin Inquiry	“Reasonable Country of Origin Inquiry” (RCOI) means a method to determine whether any Conflict Mineral(s) originated within the Covered Countries

## 5.0 Appendices

**ATTACHMENT A:** IEC 62474 D16.00 Detailed Reference Substances List with CAS Numbers. Current version found here: <http://std.iec.ch/iec62474/iec62474.nsf/index>

**These lists are typically not comprehensive; they represent examples of chemicals listing CAS numbers if applicable or available. In case the list is complete (and the reporting requirement is limited to those substances listed).**

Substance Group	Specific Substance	CAS number	Common Synonyms
Asbestos	Asbestos	1332-21-4	
Asbestos	Actinolite	77536-66-4	
Asbestos	Amosite (Grunerite)	12172-73-5	
Asbestos	Anthophyllite	77536-67-5	
Asbestos	Chrysotile	12001-29-5	
Asbestos	Crocidolite	12001-28-4	
Asbestos	Tremolite	77536-68-6	
Azocolourants and azodyes which form certain aromatic amines	Biphenyl-4-ylamine	92-67-1	
Azocolourants and azodyes which form certain aromatic amines	Benzidine	92-87-5	
Azocolourants and azodyes which form certain aromatic amines	4-chloro-o-toluidine	95-69-2	
Azocolourants and azodyes which form certain aromatic amines	2-naphthylamine	91-59-8	
Azocolourants and azodyes which form certain aromatic amines	o-aminoazotoluene	97-56-3	
Azocolourants and azodyes which form certain aromatic amines	5-nitro-o-toluidine	99-55-8	
Azocolourants and azodyes which form certain aromatic amines	4-chloroaniline	106-47-8	
Azocolourants and azodyes which form certain aromatic amines	4-methoxy-m-phenylenediamine	615-05-4	
Azocolourants and azodyes which form certain aromatic amines	4,4'-methylenedianiline	101-77-9	
Azocolourants and azodyes which form certain aromatic amines	3,3'-dichlorobenzidine	91-94-1	
Azocolourants and azodyes which form certain aromatic amines	3,3'-dimethoxybenzidine	119-90-4	
Azocolourants and azodyes which form certain aromatic amines	3,3'-dimethylbenzidine	119-93-7	

Substance Group	Specific Substance	CAS number	Common Synonyms
Azocolourants and azodyes which form certain aromatic amines	4,4'-methylenedi-o-toluidine	838-88-0	
Azocolourants and azodyes which form certain aromatic amines	6-methoxy-m-toluidine	120-71-8	
Azocolourants and azodyes which form certain aromatic amines	4,4'-methylene-bis(2-chloroaniline)	101-14-4	
Azocolourants and azodyes which form certain aromatic amines	4,4'-oxydianiline	101-80-4	
Azocolourants and azodyes which form certain aromatic amines	4,4'-thiodianiline	139-65-1	
Azocolourants and azodyes which form certain aromatic amines	o-toluidine	95-53-4	
Azocolourants and azodyes which form certain aromatic amines	4-methyl-m-phenylenediamine	95-80-7	
Azocolourants and azodyes which form certain aromatic amines	2,4,5-trimethylaniline	137-17-7	
Azocolourants and azodyes which form certain aromatic amines	o-anisidine	90-04-0	
Azocolourants and azodyes which form certain aromatic amines	4-amino azobenzene	60-09-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(14) [Aliphatic/alicyclic brominated compounds]	-	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(15) [Aliphatic/alicyclic brominated compounds in combination with antimony compounds]	-	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(16) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls]	-	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	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]	-	

Substance Group	Specific Substance	CAS number	Common Synonyms
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(22) [Aliphatic/alicyclic chlorinated and brominated compounds]	-	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(42) [Brominated organic phosphorus compounds]	-	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Poly(2,6-dibromo-phenylene oxide)	69882-11-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tetra-decabromo-diphenoxy-benzene	58965-66-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	1,2-Bis(2,4,6-tribromo-phenoxy) ethane	37853-59-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	3,5,3',5'-Tetrabromo-bisphenol A (TBPA)	79-94-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA, unspecified	30496-13-0	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-epichlorhydrin oligomer	40039-93-8	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-TBBA-diglycidyl-ether oligomer	70682-74-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA carbonate oligomer	28906-13-0	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA carbonate oligomer, phenoxy end capped	94334-64-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated	71342-77-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-bisphenol A-phosgene polymer	32844-27-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated epoxy resin end-capped with tribromophenol	139638-58-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Brominated epoxy resin end-capped with tribromophenol	135229-48-0	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-(2,3-dibromo-propyl-ether)	21850-44-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA bis-(2-hydroxy-ethyl-ether)	4162-45-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-bis-(allyl-ether)	25327-89-3	

Substance Group	Specific Substance	CAS number	Common Synonyms
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBA-dimethyl-ether	37853-61-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tetrabromo-bisphenol S	39635-79-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBBS-bis-(2,3-dibromo-propyl-ether)	42757-55-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	2,4-Dibromo-phenol	615-58-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	2,4,6-tribromo-phenol	118-79-6	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Pentabromo-phenol	608-71-9	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	2,4,6-Tribromo-phenyl-allyl-ether	3278-89-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tribromo-phenyl-allyl-ether, unspecified	26762-91-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Bis(methyl)tetrabromo-phthalate	55481-60-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Bis(2-ethylhexyl)tetrabromo-phthalate	26040-51-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP	20566-35-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	TBPA, glycol-and propylene-oxide esters	75790-69-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	N,N'-Ethylene -bis-(tetrabromo-phthalimide)	32588-76-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	52907-07-0	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	2,3-Dibromo-2-butene-1,4-diol	3234-02-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Dibromo-neopentyl-glycol	3296-90-0	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Dibromo-propanol	96-13-9	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tribromo-neopentyl-alcohol	36483-57-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Poly tribromo-styrene	57137-10-7	

Substance Group	Specific Substance	CAS number	Common Synonyms
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tribromo-styrene	61368-34-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Dibromo-styrene grafted PP	171091-06-8	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Poly-dibromo-styrene	31780-26-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Bromo-/Chloro-paraffins	68955-41-9	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Bromo-/Chloro-alpha-olefin	82600-56-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Vinylbromide	593-60-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tris-(2,3-dibromo-propyl)-isocyanurate	52434-90-9	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tris(2,4-Dibromo-phenyl) phosphate	49690-63-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tris(tribromo-neopentyl) phosphate	19186-97-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Chlorinated and brominated phosphate ester	125997-20-8	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Pentabromo-toluene	87-83-2	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Pentabromo-benzyl bromide	38521-51-6	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	1,3-Butadiene homopolymer, brominated	68441-46-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Pentabromo-benzyl-acrylate, monomer	59447-55-1	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Pentabromo-benzyl-acrylate, polymer	59447-57-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Decabromo-diphenyl-ethane	84852-53-9	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tribromo-bisphenyl-maleinimide	59789-51-4	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808)	155613-93-7	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Other Brominated Flame Retardants	-	

Substance Group	Specific Substance	CAS number	Common Synonyms
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tetrabromo-cyclo-octane	31454-48-5	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	1,2-Dibromo-4-(1,2 dibromo-ethyl)-cyclo-hexane	3322-93-8	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tetrabromophthalic acid Na salt	25357-79-3	
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Tetrabromo phthalic anhydride	632-79-1	
Cadmium/Cadmium compounds	Cadmium	7440-43-9	
Cadmium/Cadmium compounds	Cadmium oxide	1306-19-0	
Cadmium/Cadmium compounds	Cadmium sulfide	1306-23-6	
Cadmium/Cadmium compounds	Cadmium chloride	10108-64-2	
Cadmium/Cadmium compounds	Cadmium sulfate	10124-36-4, 31119-53-6	
Chromium (VI) Compounds	Barium chromate	10294-40-3	
Chromium (VI) Compounds	Calcium chromate	13765-19-0	
Chromium (VI) Compounds	Chromium trioxide	1333-82-0	Chromium (VI) oxide
Chromium (VI) Compounds	Sodium chromate	7775-11-3	
Chromium (VI) Compounds	Sodium dichromate	10588-01-9, 7789-12-0	
Chromium (VI) Compounds	Strontium chromate	7789-06-2	
Chromium (VI) Compounds	Potassium dichromate	7778-50-9	
Chromium (VI) Compounds	Potassium chromate	7789-00-6	
Chromium (VI) Compounds	Zinc chromate	13530-65-9	
Dibutyltin (DBT) compounds	Dibutyltin oxide	818-08-6	
Dibutyltin (DBT) compounds	Dibutyltin diacetate	1067-33-0	
Dibutyltin (DBT) compounds	Dibutyltin dilaurate	77-58-7	
Dibutyltin (DBT) compounds	Dibutyltin maleate	78-04-6	
Dibutyltin (DBT) compounds	Other dibutyltin compounds	-	
Diocetyl tin (DOT) compounds	Diocetyl Tin Oxide	870-08-6	
Diocetyl tin (DOT) compounds	Diocetyl tin dilaurate	3648-18-8	
Diocetyl tin (DOT) compounds	Other Diocetyl tin compounds	-	
Disodium tetraborates	Disodium tetraborate, anhydrous	1330-43-4	
Disodium tetraborates	Disodium tetraborate, pentahydrate	12179-04-3	

Substance Group	Specific Substance	CAS number	Common Synonyms
Disodium tetraborates	Disodium tetraborate, decahydrate	1303-96-4	
Disodium tetraborates	Tetraboron disodium heptaoxide, hydrate	12267-73-1	
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Tetrafluoromethane	75-73-0	Carbon tetrafluoride, (PFC-14)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Hexafluoroethane	76-16-4	(PFC-116)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Octafluoropropane	76-19-7	(PFC-218)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Decafluorobutane	355-25-9	(PFC-31-10)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Dodecafluoropentane	678-26-2	(PFC-41-12)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Tetradecafluorohexane	355-42-0	(PFC-51-14)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Octafluorocyclobutane	115-25-3	(PFC-c318)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Sulfur Hexafluoride	2551-62-4	(SF6)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Trifluoromethane	75-46-7	(HFC-23)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Difluoromethane	75-10-5	(HFC-32)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Methyl fluoride	593-53-3	(HFC-41)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	2H,3H-Decafluoropentane	138495-42-8	(HFC-43-10mee)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	Pentafluoroethane	354-33-6	(HFC-125)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,2,2-Tetrafluoroethane	359-35-3	(HFC-134)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,2-Tetrafluoroethane	811-97-2	(HFC-134a)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1-Difluoroethane	75-37-6	(HFC-152a)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,2-Trifluoroethane	430-66-0	(HFC-143)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1-Trifluoroethane	420-46-2	(HFC-143a)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	2H-Heptafluoropropane	431-89-0	(HFC-227ea)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,2,2,3-Hexafluoro-propane	677-56-5	(HFC-236cb)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,2,2,3,3-Hexafluoropropane	431-63-0	(HFC-236ea)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,3,3,3-Hexafluoropropane	690-39-1	(HFC-236fa)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,2,2,3-Pentafluoropropane	679-86-7	(HFC-245ca)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,3,3-Pentafluoropropane	460-73-1	(HFC-245fa)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)	1,1,1,3,3-Pentafluorobutane	406-58-6	(HFC-365mfc)
Hexabromocyclododecane (HBCDD)	Hexabromocyclododecane (HBCDD)	25637-99-4, 3194-55-6	
Hexabromocyclododecane (HBCDD)	alpha-hexabromocyclododecane	134237-50-6	
Hexabromocyclododecane (HBCDD)	beta-hexabromocyclododecane	134237-51-7	

Substance Group	Specific Substance	CAS number	Common Synonyms
Hexabromocyclododecane (HBCDD)	gamma-hexabromocyclododecane	134237-52-8	
Hexabromocyclododecane (HBCDD)	1,2,5,6,9,10-hexabromocyclododecane	3194-55-6	
Lead/Lead Compounds	Lead	7439-92-1	
Lead/Lead Compounds	Lead (II) sulfate	7446-14-2	
Lead/Lead Compounds	Lead (II) carbonate	598-63-0	
Lead/Lead Compounds	Trilead bis(carbonate) dihydroxide	1319-46-6	
Lead/Lead Compounds	Lead (II) acetate, trihydrate	6080-56-4	
Lead/Lead Compounds	Lead phosphate	7446-27-7	
Lead/Lead Compounds	Lead selenide	12069-00-0	
Lead/Lead Compounds	Lead (IV) oxide	1309-60-0	
Lead/Lead Compounds	Lead (II,IV) oxide	1314-41-6	
Lead/Lead Compounds	Lead (II) sulfide	1314-87-0	
Lead/Lead Compounds	Lead (II) oxide	1317-36-8	
Lead/Lead Compounds	Lead (II) phosphate	7446-27-7	
Lead/Lead Compounds	Lead (II) titanate	12060-00-3	
Lead/Lead Compounds	Lead sulfate, sulphuric acid, lead salt	15739-80-7	
Lead/Lead Compounds	Lead sulphate, tribasic	12202-17-4	
Lead/Lead Compounds	Lead stearate	1072-35-1	
Lead/Lead Compounds	Lead (II) chromate	7758-97-6	
Lead/Lead Compounds	Lead chromate molybdate sulphate red	12656-85-8	
Lead/Lead Compounds	Lead sulfochromate yellow	1344-37-2	
Mercury/Mercury Compounds	Mercury	7439-97-6	
Mercury/Mercury Compounds	Mercuric chloride	33631-63-9	
Mercury/Mercury Compounds	Mercury (II) chloride	7487-94-7	
Mercury/Mercury Compounds	Mercuric sulfate	7783-35-9	
Mercury/Mercury Compounds	Mercuric nitrate	10045-94-0	
Mercury/Mercury Compounds	Mercuric (II) oxide	21908-53-2	
Mercury/Mercury Compounds	Mercuric sulfide	1344-48-5	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorofluoromethane	75-69-4	(CFC-11)

Substance Group	Specific Substance	CAS number	Common Synonyms
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorodifluoromethane	75-71-8	(CFC-12)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorotrifluoromethane	75-72-9	(CFC-13)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentachlorofluoroethane	354-56-3	(CFC-111)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorodifluoroethane	76-12-0	(CFC-112)
	1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	(CFC-112)
	1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	(CFC-112a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorotrifluoroethane	76-13-1	(CFC-113)
	1,1,2-Trichloro-1,2,2 trifluoroethane	76-13-1	(CFC-113)
	1,1,1-Trichloro-2,2,2 trifluoroethane	354-58-5	(CFC-113a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorotetrafluoroethane	76-14-2	(CFC-114)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Monochloropentafluoroethane	76-15-3	(CFC-115)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Heptachlorofluoropropane	422-78-6	(CFC-211)
	1,1,1,2,2,3,3-Heptachloro-3-fluoropropane	135401-87-5	(CFC-211aa)
	1,1,1,2,3,3,3-Heptachloro-2-fluoropropane	422-78-6 422-81-1	(CFC-211ba)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Hexachlorodifluoropropane	3182-26-1	(CFC-212)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentachlorotrifluoropropane	2354-06-5	(CFC-213)
		134237-31-3	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorotetrafluoropropane	29255-31-0	(CFC-214)
	1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane	2268-46-4	(CFC-214aa)
	1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane	-	(CFC-214cb)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichloropentafluoropropane	1599-41-3	(CFC-215)
	1,2,2-Trichloropentafluoropropane	1599-41-3	(CFC-215aa)
	1,2,3-Trichloropentafluoropropane	76-17-5	(CFC-215ba)

Substance Group	Specific Substance	CAS number	Common Synonyms
	1,1,2-Trichloropentafluoropropane	-	(CFC-215bb)
	1,1,3-Trichloropentafluoropropane	-	(CFC-215cb)
	1,1,1-Trichloropentafluoropropane	4259-43-2	(CFC-215ca)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorohexafluoropropane	661-97-2	(CFC-216)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chloroheptafluoropropane	422-86-6	(CFC-217)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromochloromethane	74-97-5	(Halon-1011)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromodifluoromethane	75-61-6	(Halon-1202)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromochlorodifluoromethane	353-59-3	(Halon-1211)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromotrifluoromethane	75-63-8	(Halon-1301)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromotetrafluoroethane	124-73-2	(Halon-2402)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachloromethane	56-23-5	(carbon tetrachloride)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	1,1,1-Trichloroethane	71-55-6	(methylchloroform)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromomethane	74-83-9	(methyl bromide)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromoethane	74-96-4	(ethyl bromide)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	1-Bromopropane	106-94-5	(n-propyl bromide)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trifluoroiodomethane	2314-97-8	(trifluoromethyl iodide)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chloromethane	74-87-3	(methyl chloride)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromofluoromethane	1868-53-7	(HBFC-21 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromodifluoromethane	1511-62-2	(HBFC-22 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromofluoromethane	373-52-4	(HBFC-31 B1)

Substance Group	Specific Substance	CAS number	Common Synonyms
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrabromofluoroethane	306-80-9	(HBFC-121 B4)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromodifluoroethane	-	(HBFC-122 B3)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromotrifluoroethane	354-04-1	(HBFC-123 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromotetrafluoroethane	124-72-1	(HBFC-124 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromofluoroethane	-	(HBFC-131 B3)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromodifluoroethane	75-82-1	(HBFC-132 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromotrifluoroethane	421-06-7	(HBFC-133 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromofluoroethane	358-97-4	(HBFC-141 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromodifluoroethane	420-47-3	(HBFC-142 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromofluoroethane	762-49-2	(HBFC-151 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Hexabromofluoropropane	-	(HBFC-221 B6)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentabromodifluoropropane	-	(HBFC-222 B5)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrabromotrifluoropropane	-	(HBFC-223 B4)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromotetrafluoropropane	-	(HBFC-224 B3)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromopentafluoropropane	431-78-7	(HBFC-225 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromohexafluoropropane	2252-78-0	(HBFC-226 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentabromofluoropropane	-	(HBFC-231 B5)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrabromodifluoropropane	-	(HBFC-232 B4)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromotrifluoropropane	-	(HBFC-233 B3)

Substance Group	Specific Substance	CAS number	Common Synonyms
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromotetrafluoropropane	-	(HBFC-234 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromopentafluoropropane	460-88-8	(HBFC-235 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrabromofluoropropane	-	(HBFC-241 B4)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromodifluoropropane	70192-80-2	(HBFC-242 B3)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromotrifluoropropane	431-21-0	(HBFC-243 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromotetrafluoropropane	679-84-5	(HBFC-244 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tribromofluoropropane	75372-14-4	(HBFC-251 B3)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromodifluoropropane	460-25-3	(HBFC-252 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromotrifluoropropane	421-46-5	(HBFC-253 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dibromofluoropropane	51584-26-0	(HBFC-261 B2)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromodifluoropropane	-	(HBFC-262 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Bromofluoropropane	1871-72-3	(HBFC-271 B1)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorofluoromethane	75-43-4	(HCFC-21)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorodifluoromethane	75-45-6	(HCFC-22)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorofluoromethane	593-70-4	(HCFC-31)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorofluoroethane	134237-32-4	(HCFC-121)
	1,1,2,2-Tetrachloro-1-fluoroethane	354-14-3	(HCFC-121)
	1,1,1,2-Tetrachloro-2-fluoroethane	354-11-0	(HCFC-121a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorodifluoroethane	41834-16-6	(HCFC-122)
	1,2,2-Trichloro-1,1-difluoroethane	354-21-2	(HCFC-122)
	1,1,2-Trichloro-1,2-difluoroethane	354-15-4	(HCFC-122a)

Substance Group	Specific Substance	CAS number	Common Synonyms
	1,1,1-Trichloro-2,2-difluoroethane	354-12-1	(HCFC-122b)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorotrifluoroethane	34077-87-7	(HCFC-123)
	1,1-Dichloro-2,2,2-trifluoroethane	306-83-2	(HCFC-123)
	1,2-Dichloro-1,1,2-trifluoroethane	354-23-4	(HCFC-123a)
	1,1-Dichloro-1,2,2-trifluoroethane	90454-18-5	(HCFC-123b)
		812-04-4	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorotetrafluoroethane	63938-10-3	(HCFC-124)
	2-chloro-1,1,1,2-tetrafluoroethane	2837-89-0	(HCFC-124)
	1-chloro-1,1,2,2-tetrafluoroethane	354-25-6	(HCFC-124a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorofluoroethane	27154-33-2;	(HCFC-131)
	1,1,2-Trichloro-2-fluoroethane	(134237-34-6)	(HCFC-131)
	1,1,2-Trichloro-1-fluoroethane	359-28-4	(HCFC131a)
	1,1,1-Trichloro-2-fluoroethane	811-95-0	(HCFC-131b)
		2366-36-1	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorodifluoroethane	25915-78-0	(HCFC-132)
	1,2-Dichloro-1,2-difluoroethane	431-06-1	(HCFC-132)
	1,1-Dichloro-2,2-difluoroethane	471-43-2	(HCFC-132a)
	1,2-Dichloro-1,1-difluoroethane	1649-08-7	(HCFC-132b)
	1,1-Dichloro-1,2-difluoroethane	1842-05-3	(HFCF-132c)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorotrifluoroethane	1330-45-6	(HCFC-133)
	1-Chloro-1,2,2-trifluoroethane	431-07-2	(HCFC-133)
	2-Chloro-1,1,1-trifluoroethane	1330-45-6	(HCFC-133a)
	1-Chloro-1,1,2-trifluoroethane	75-88-7	(HCFC-133b)
		421-04-5	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorofluoroethane	1717-00-6;	(HCFC-141)
	1,2-Dichloro-1-fluoroethane	(25167-88-8)	(HCFC-141)
	1,1-Dichloro-2-fluoroethane	430-57-9	(HCFC-141a)
	1,1-Dichloro-1-fluoroethane	430-53-5	(HCFC-141b)
		1717-00-6	

Substance Group	Specific Substance	CAS number	Common Synonyms
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorodifluoroethane	25497-29-4	(HCFC-142)
	2-Chloro-1,1-Difluoroethane	338-65-8	(HCFC-142)
	1-Chloro-1,1-difluoroethane	75-68-3	(HCFC-142b)
	1-Chloro-1,2-difluoroethane	338-64-7	(HCFC-142a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorofluoroethane	110587-14-9	(HCFC-151)
	1-Chloro-2-fluoroethane	762-50-5	(HCFC-151)
	1-Chloro-1-fluoroethane	1615-75-4	(HCFC-151a)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Hexachlorofluoropropane	134237-35-7	(HCFC-221)
	1,1,1,2,2,3-Hexachloro-3-fluoropropane	29470-94-8	(HCFC-221ab)
		422-26-4	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentachlorodifluoropropane	134237-36-8	(HCFC-222)
	1,1,1,3,3-pentachloro-2,2-difluoropropane	422-49-1	(HCFC-222ca)
	1,2,2,3,3-pentachloro-1,1-difluoropropane	422-30-0	(HCFC-222aa)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorotrifluoropropane	134237-37-9	(HCFC-223)
	1,1,3,3-Tetrachloro-1,2,2-trifluoropropane	422-52-6	(HCFC-223ca)
	1,1,1,3-Tetrachloro-2,2,3-trifluoropropane	422-50-4	(HCFC-223cb)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorotetrafluoropropane	134237-38-0	(HCFC-224)
	1,3,3-Trichloro-1,1,2,2-tetrafluoropropane	, 422-54-8	(HCFC-224ca)
	1,1,3-Trichloro-1,2,2,3-tetrafluoropropane	, 422-53-7, 422-51-5	(HCFC-224cb)
	1,1,1-Trichloro-2,2,3,3-tetrafluoropropane		(HCFC-224cc)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichloropentafluoropropane	127564-92-5	(HCFC-225)
	2,2-Dichloro-1,1,1,3,3-pentafluoropropane	128903-21-9	(HCFC-225aa)
	2,3-Dichloro-1,1,1,2,3-pentafluoropropane	422-48-0	(HCFC-225ba)
	1,2-Dichloro-1,1,2,3,3-pentafluoropropane	422-44-6	(HCFC-225bb)
	1,2-Dichloro-1,1,2,3,3-pentafluoropropane	422-56-0	(HCFC-225ca)

Substance Group	Specific Substance	CAS number	Common Synonyms
	3,3-Dichloro-1,1,1,2,2-pentafluoropropane	507-55-1	(HCFC-225cb)
		13474-88-9	(HCFC-225cc)
	1,3-Dichloro-1,1,2,2,3-pentafluoropropane	431-86-7	(HCFC-225da)
		136013-79-1	(HCFC-225ea)
	1,1-Dichloro-1,2,2,3,3-pentafluoropropane	111512-56-2	(HCFC-225eb)
	1,2-Dichloro-1,1,3,3,3-pentafluoropropane		
	1,3-Dichloro-1,1,2,3,3-pentafluoropropane		
	1,1-Dichloro-1,2,3,3,3-pentafluoropropane		
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorohexafluoropropane	134308-72-8	(HCFC-226)
	2-Chloro-1,1,1,3,3,3-hexafluoropropane	431-87-8	(HCFC-226da)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Pentachlorofluoropropane	134190-48-0	(HCFC-231)
	1,1,1,2,3-pentachloro-2-fluoropropane	421-94-3	(HCFC-231bb)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorodifluoropropane	134237-39-1	(HCFC-232)
	1,1,1,3-Tetrachloro-3,3-difluoropropane	460-89-9	(HCFC-232fc)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorotrifluoropropane	134237-40-4	(HCFC-233) (HCFC-233fb)
	1,1,1-Trichloro-3,3,3-trifluoropropane	7125-83-9	
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorotetrafluoropropane	127564-83-4	(HCFC-234)
	1,2-Dichloro-1,2,3,3-tetrafluoropropane	425-94-5	(HCFC-234db)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chloropentafluoropropane	134237-41-5	(HCFC-235)
	1-Chloro-1,1,3,3,3-pentafluoropropane	460-92-4	(HCFC-235fa)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Tetrachlorofluoropropane	134190-49-1	(HCFC-241)
	1,1,2,3-Tetrachloro-1-fluoropropane	666-27-3	(HCFC-241db)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorodifluoropropane	134237-42-6	(HCFC-242)
	1,3,3,Trichloro-1,1-difluoropropane	460-63-9	(HCFC-242fa)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorotrifluoropropane	134237-43-7	(HCFC-243)
	1,1-Dichloro-1,2,2-trifluoropropane	7125-99-7	(HCFC-243cc)

Substance Group	Specific Substance	CAS number	Common Synonyms
	2,3-Dichloro-1,1,1-trifluoropropane	338-75-0	(HCFC-243db)
	3,3-Dichloro-1,1,1-trifluoropropane	460-69-5	(HCFC-243fa)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorotetrafluoropropane	134190-50-4	(HCFC-244)
	3-Chloro-1,1,2,2-tetrafluoropropane	679-85-6	(HCFC-244ca)
	1-Chloro-1,1,2,2-tetrafluoropropane	421-75-0	(HCFC-244cc)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Trichlorofluoropropane	134190-51-5	(HCFC-251)
	1,1,3-Trichloro-1-fluoropropane	818-99-5	(HCFC-251fb)
	1,1,2-Trichloro-1-fluoropropane	421-41-0	(HCFC-251dc)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorodifluoropropane	134190-52-6	(HCFC-252)
	1,3-Dichloro-1,1-difluoropropane	819-00-1	(HCFC-252fb)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorotrifluoropropane	134237-44-8	(HCFC-253)
	3-Chloro-1,1,1-trifluoropropane	460-35-5	(HCFC-253fb)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Dichlorofluoropropane	134237-45-9	(HCFC-261)
	1,1-Dichloro-1-fluoropropane	7799-56-6	(HCFC-261fc)
	1,2-Dichloro-2-fluoro-propane	420-97-3	(HCFC-261ba)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorodifluoropropane	134190-53-7	(HCFC-262)
	1-Chloro-2,2-difluoropropane	420-99-5	(HCFC-262ca)
	2-Chloro-1,3-difluoropropane	102738-79-4	(HCFC-262da)
	1-Chloro-1,1-difluoropropane	421-02-3	(HCFC-262fc)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	Chlorofluoropropane	134190-54-8	(HCFC-271)
	2-Chloro-2-fluoropropane	420-44-0	(HCFC-271ba)
	1-Chloro-1-fluoropropane	430-55-7	(HCFC-271fb)
Perchlorates	Lithium Perchlorate	7791-03-9	
Perchlorates	Ammonium perchlorate	7790-98-9	
Perchlorates	Barium perchlorate	13465-95-7	
Perchlorates	Lead perchlorate	13637-76-8	
Perchlorates	Magnesium Perchlorate	10034-81-8	
Perchlorates	Perchloric acid, cobalt (2+) salt	13455-31-7	
Perchlorates	Perchloric acid, mercury(2+) salt	7616-83-3	
Perchlorates	Perchloric acid, nickel(2+) salt, hexahydrate	13520-61-1	
Perchlorates	Nickel perchlorate	13637-71-3	
Perchlorates	Potassium Perchlorate	7778-74-7	

Substance Group	Specific Substance	CAS number	Common Synonyms
Perchlorates	Sodium Perchlorate	7601-89-0	
Perchlorates	Thallium(3+) perchlorate	15596-83-5	
Perfluorooctane sulfonates (PFOS)	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl acrylate and vinylidene chloride	306975-62-2	
Perfluorooctane sulfonates (PFOS)	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt	2991-51-7	
Phthalates, Selected Group 1 (BBP, DBP, DEHP)	Benzylbutylphthalate (BBP)	85-68-7	
Phthalates, Selected Group 1 (BBP, DBP, DEHP)	Dibutylphthalate (DBP)	84-74-2	
Phthalates, Selected Group 1 (BBP, DBP, DEHP)	Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	
Phthalates, Selected Group 2 (DIDP, DINP, DNOP)	Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	
Phthalates, Selected Group 2 (DIDP, DINP, DNOP)	Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	
Phthalates, Selected Group 2 (DIDP, DINP, DNOP)	Di-n-octyl phthalate (DNOP)	117-84-0	
Polybrominated Biphenyls (PBBs)	Polybrominated Biphenyls	59536-65-1	
Polybrominated Biphenyls (PBBs)	Dibromobiphenyl	92-86-4	
Polybrominated Biphenyls (PBBs)	2-Bromobiphenyl	2052-07-5	
Polybrominated Biphenyls (PBBs)	3-Bromobiphenyl	2113-57-7	
Polybrominated Biphenyls (PBBs)	4-Bromobiphenyl	92-66-0	
Polybrominated Biphenyls (PBBs)	Tribromobiphenyl	59080-34-1	
Polybrominated Biphenyls (PBBs)	Tetrabromobiphenyl	40088-45-7	
Polybrominated Biphenyls (PBBs)	Pentabromobiphenyl	56307-79-0	
Polybrominated Biphenyls (PBBs)	Hexabromobiphenyl	59080-40-9	
Polybrominated Biphenyls (PBBs)	hexabromo-1,1-biphenyl	36355-01-8	
Polybrominated Biphenyls (PBBs)	Firemaster FF-1	67774-32-7	
Polybrominated Biphenyls (PBBs)	Heptabromobiphenyl	35194-78-6	
Polybrominated Biphenyls (PBBs)	Octabromobiphenyl	61288-13-9	
Polybrominated Biphenyls (PBBs)	Nonabiphenyl	27753-52-2	

Substance Group	Specific Substance	CAS number	Common Synonyms
Polybrominated Biphenyls (PBBs)	Decabromobiphenyl	13654-09-6	
Polybrominated Diphenylethers (PBDEs)	Bromodiphenyl ether	101-55-3	
Polybrominated Diphenylethers (PBDEs)	Dibromodiphenyl ethers	2050-47-7	
Polybrominated Diphenylethers (PBDEs)	Tribromodiphenyl ether	49690-94-0	
Polybrominated Diphenylethers (PBDEs)	Tetrabromodiphenyl ethers	40088-47-9	
Polybrominated Diphenylethers (PBDEs)	Hexabromodiphenyl ether	36483-60-0	
Polybrominated Diphenylethers (PBDEs)	Heptabromodiphenylether	68928-80-3	
Polybrominated Diphenylethers (PBDEs)	Nonabromodiphenylether	63936-56-1	
Polybrominated Diphenylethers (PBDEs)	Decabromodiphenyl ether	1163-19-5	
Polybrominated Diphenylethers (PBDEs)	Pentabromodiphenyl ether	32534-81-9	
Polybrominated Diphenylethers (PBDEs)	Octabromodiphenyl ether	32536-52-0	
Polychlorinated Biphenyls (PCBs) and specific substitutes	Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3	
Polychlorinated Biphenyls (PCBs) and specific substitutes	Monomethyl-tetrachloro-diphenyl methane	76253-60-6	Ugilec 141
Polychlorinated Biphenyls (PCBs) and specific substitutes	Monomethyl-dichloro-diphenyl methane	81161-70-8	Ugilec 121, Ugilec 21
Polychlorinated Biphenyls (PCBs) and specific substitutes	Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8	
Polychlorinated Terphenyls (PCTs)	Polychlorinated Terphenyls (PCT) (all isomers and congeners)	61788-33-8	
Polychlorinated Naphthalenes (PCNs)	Naphthalene, chloro derivatives	70776-03-3	
Radioactive substances	Uranium-238	7440-61-1	
Radioactive substances	Radon	10043-92-2	
Radioactive substances	Americium-241	14596-10-2	
Radioactive substances	Thorium-232	7440-29-1	
Radioactive substances	Cesium-137	10045-97-3	
Radioactive substances	Strontium-90	10098-97-2	
Radioactive substances	Other radioactive substances	-	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	Alkanes, C10-13, chloro	85535-84-8	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	Alkanes, C10-12, chloro	108171-26-2	

Substance Group	Specific Substance	CAS number	Common Synonyms
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	Alkanes, C12-13, chloro	71011-12-6	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	Alkanes, chloro	61788-76-9	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	Other Short Chain Chlorinated Paraffins	-	
Tri-substituted organostannic compounds	Triphenyltin-N, N-dimethyldithiocarbamate	1803-12-9	
Tri-substituted organostannic compounds	Triphenyltinfluoride	379-52-2	
Tri-substituted organostannic compounds	Triphenyltinacetate	900-95-8	
Tri-substituted organostannic compounds	Triphenyltinchloride	639-58-7	
Tri-substituted organostannic compounds	Triphenyltinhydroxide	76-87-9	
Tri-substituted organostannic compounds	Triphenyltin fattyacid((9-11)salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5	
Tri-substituted organostannic compounds	Triphenyltinchloroacetate	7094-94-2	
Tri-substituted organostannic compounds	Tributyltinmethacrylate	2155-70-6	
Tri-substituted organostannic compounds	Bis(tributyltin)fumalate	6454-35-9	
Tri-substituted organostannic compounds	Tributyltinfluoride	1983-10-4	
Tri-substituted organostannic compounds	Bis(tributyltin)2,3-dibromosuccinate	31732-71-5	
Tri-substituted organostannic compounds	Tributyltinacetate	56-36-0	
Tri-substituted organostannic compounds	Tributyltinlaurate	3090-36-6	
Tri-substituted organostannic compounds	Bis(tributyltin)phthalate	4782-29-0	
Tri-substituted organostannic compounds	Copolymer of alkyl(c=8) acrylate,methyl methacrylate and tributyltin methacrylate	67772-01-4	
Tri-substituted organostannic compounds	Tributyltinsulfamate	6517-25-5	
Tri-substituted organostannic compounds	Bis(tributyltin)maleate	14275-57-1	
Tri-substituted organostannic compounds	Tributyltinchloride	1461-22-9 7342-38-3	
Tri-substituted organostannic compounds	Tributyltin cyclopentane carbonate=mixture	85409-17-2	
Tri-substituted organostannic compounds	Tributyltin-1, 2,3,4,4a, 4b, 5,6,10,10a-decahydro-7-isopropyl-1,	26239-64-5	

Substance Group	Specific Substance	CAS number	Common Synonyms
	4a-dimethyl-1-phenanthrenecarboxylatemix		
Tri-substituted organostannic compounds	Other tri-substituted organostannic compounds	-	
Chlorinated Flame Retardants (CFR)	Tetrakis(2-chloroethyl)dichloroisopentylidiphosphate	38051-10-4	
Chlorinated Flame Retardants (CFR)	Tris(1-chloro-2-propyl)phosphate	13674-84-5	
Chlorinated Flame Retardants (CFR)	Tris(2,3-dichloro-1-propyl)phosphate	66108-37-0	
Chlorinated Flame Retardants (CFR)	Other Chlorinated Flame Retardants	-	
4-Nonylphenol, branched and linear, ethoxylated	Poly(oxy-1,2-ethanediyl), $\alpha$ -(4-nonylphenyl)- $\omega$ -hydroxy-	26027-38-3	
4-Nonylphenol, branched and linear, ethoxylated	Ethanol, 2-[2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]-	7311-27-5	
4-Nonylphenol, branched and linear, ethoxylated	Ethanol, 2-[2-(4-nonylphenoxy)ethoxy]-	20427-84-3	
4-Nonylphenol, branched and linear, ethoxylated	3,6,9,12,15-Pentaoxaheptadecan-1-ol,17-(4-nonylphenoxy)-	34166-38-6	
4-Nonylphenol, branched and linear, ethoxylated	3,6,9,12,15,18-Hexaoxaicosan-1-ol, 20-(4-nonylphenoxy)-	27942-27-4	
4-Nonylphenol, branched and linear, ethoxylated	3,6,9,12,15,18,21,24-Octaoxahexacosan-1-ol,26-(4-nonylphenoxy)-	14409-72-4	
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Pentadecafluorooctanoic acid	335-67-1	Perfluorooctanoic acid
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Ammonium pentadecafluorooctanoate	3825-26-1	Ammonium perfluorooctanoate
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Sodium pentadecafluorooctanoate	335-95-5	Sodium perfluorooctanoate
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Potassium pentadecafluorooctanoate	2395-00-8	Potassium perfluorooctanoate
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Silver pentadecafluorooctanoate	335-93-3	Silver perfluorooctanoate
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Pentadecafluorooctanoyl fluoride	335-66-0	Perfluorooctanoyl fluoride
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Methyl pentadecafluorooctanoate	376-27-2	Methyl perfluorooctanoate
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Ethyl pentadecafluorooctanoate	3108-24-5	Ethyl perfluorooctanoate

Substance Group	Specific Substance	CAS number	Common Synonyms
Hexahydromethylphthalic anhydride	Hexahydromethylphthalic anhydride	25550-51-0	
Hexahydromethylphthalic anhydride	Hexahydro-4-methylphthalic anhydride	19438-60-9	
Hexahydromethylphthalic anhydride	Hexahydro-1-methylphthalic anhydride	48122-14-1	
Hexahydromethylphthalic anhydride	Hexahydro-3-methylphthalic anhydride	57110-29-9	
4-Nonylphenol, branched and linear, ethoxylated	Ethanol, 2-(4-nonylphenoxy)-	104-35-8	
4-Nonylphenol, branched and linear, ethoxylated	Isononylphenol ethoxylate	37205-87-1	
4-Nonylphenol, branched and linear, ethoxylated	Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	
4-Nonylphenol, branched and linear, ethoxylated	4-tert-Nonylphenol diethoxylate	156609-10-8	
Polychlorinated Naphthalenes (PCNs)	1-Chloronaphthalene	90-13-1	
Polychlorinated Naphthalenes (PCNs)	2-Chloronaphthalene	91-58-7	
Polychlorinated Naphthalenes (PCNs)	1,5-Dichloronaphthalene	1825-30-5	
Polychlorinated Naphthalenes (PCNs)	1,4-Dichloronaphthalene	1825-31-6	
Polychlorinated Naphthalenes (PCNs)	1,2-Dichloronaphthalene	2050-69-3	
Polychlorinated Naphthalenes (PCNs)	1,6-Dichloronaphthalene	2050-72-8	
Polychlorinated Naphthalenes (PCNs)	1,7-Dichloronaphthalene	2050-73-9	
Polychlorinated Naphthalenes (PCNs)	1,8-Dichloronaphthalene	2050-74-0	
Polychlorinated Naphthalenes (PCNs)	2,3-Dichloronaphthalene	2050-75-1	
Polychlorinated Naphthalenes (PCNs)	2,6-Dichloronaphthalene	2065-70-5	
Polychlorinated Naphthalenes (PCNs)	1,3-Dichloronaphthalene	2198-75-6	
Polychlorinated Naphthalenes (PCNs)	2,7-Dichloronaphthalene	2198-77-8	
Polychlorinated Naphthalenes (PCNs)	Chloronaphthalene	25586-43-0	
Polychlorinated Naphthalenes (PCNs)	Dichloronaphthalene	28699-88-9	
Polychlorinated Naphthalenes (PCNs)	Pentachloronaphthalene	1321-64-8	
Polychlorinated Naphthalenes (PCNs)	Trichloronaphthalene	1321-65-9	
Polychlorinated Naphthalenes (PCNs)	Hexachloronaphthalene	1335-87-1	
Polychlorinated Naphthalenes (PCNs)	Tetrachloronaphthalene	1335-88-2	
Polychlorinated Naphthalenes (PCNs)	Perchloronaphthalene	2234-13-1	1,2,3,4,5,6,7,8-Octachloronaphthalene

Substance Group	Specific Substance	CAS number	Common Synonyms
Polychlorinated Naphthalenes (PCNs)	1,4,6-Trichloronaphthalene	2437-54-9	
Polychlorinated Naphthalenes (PCNs)	1,4,5-Trichloronaphthalene	2437-55-0	
Polychlorinated Naphthalenes (PCNs)	1,4,5,8-Tetrachloronaphthalene	3432-57-3	
Polychlorinated Naphthalenes (PCNs)	1,2,4,8-Tetrachloronaphthalene	6529-87-9	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5-Tetrachloronaphthalene	6733-54-6	
Polychlorinated Naphthalenes (PCNs)	1,2,3,6,7,8-Hexachloronaphthalene	17062-87-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4-Tetrachloronaphthalene	20020-02-4	
Polychlorinated Naphthalenes (PCNs)	1,3,5,8-Tetrachloronaphthalene	31604-28-1	
Polychlorinated Naphthalenes (PCNs)	Heptachloronaphthalene	32241-08-0	
Polychlorinated Naphthalenes (PCNs)	2,3,6,7-Tetrachloronaphthalene	34588-40-4	
Polychlorinated Naphthalenes (PCNs)	1,2,4-Trichloronaphthalene	50402-51-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3-Trichloronaphthalene	50402-52-3	
Polychlorinated Naphthalenes (PCNs)	1,3,5-Trichloronaphthalene	51570-43-5	
Polychlorinated Naphthalenes (PCNs)	1,2,6-Trichloronaphthalene	51570-44-6	
Polychlorinated Naphthalenes (PCNs)	1,2,4,6-Tetrachloronaphthalene	51570-45-7	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5-Tetrachloronaphthalene	53555-63-8	
Polychlorinated Naphthalenes (PCNs)	1,3,5,7-Tetrachloronaphthalene	53555-64-9	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,7-Pentachloronaphthalene	53555-65-0	
Polychlorinated Naphthalenes (PCNs)	1,2,5-Trichloronaphthalene	55720-33-7	
Polychlorinated Naphthalenes (PCNs)	1,2,7-Trichloronaphthalene	55720-34-8	
Polychlorinated Naphthalenes (PCNs)	1,2,8-Trichloronaphthalene	55720-35-9	
Polychlorinated Naphthalenes (PCNs)	1,3,6-Trichloronaphthalene	55720-36-0	
Polychlorinated Naphthalenes (PCNs)	1,3,7-Trichloronaphthalene	55720-37-1	
Polychlorinated Naphthalenes (PCNs)	1,3,8-Trichloronaphthalene	55720-38-2	
Polychlorinated Naphthalenes (PCNs)	1,6,7-Trichloronaphthalene	55720-39-3	
Polychlorinated Naphthalenes (PCNs)	2,3,6-Trichloronaphthalene	55720-40-6	
Polychlorinated Naphthalenes (PCNs)	1,2,3,7-Tetrachloronaphthalene	55720-41-7	
Polychlorinated Naphthalenes (PCNs)	1,3,6,7-Tetrachloronaphthalene	55720-42-8	
Polychlorinated Naphthalenes (PCNs)	1,4,6,7-Tetrachloronaphthalene	55720-43-9	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5,6,7-Heptachloronaphthalene	58863-14-2	

Substance Group	Specific Substance	CAS number	Common Synonyms
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5,6,8-Heptachloronaphthalene	58863-15-3	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5,6-Hexachloronaphthalene	58877-88-6	
Polychlorinated Naphthalenes (PCNs)	1,2,4,7-Tetrachloronaphthalene	67922-21-8	
Polychlorinated Naphthalenes (PCNs)	1,2,5,6-Tetrachloronaphthalene	67922-22-9	
Polychlorinated Naphthalenes (PCNs)	1,2,5,7-Tetrachloronaphthalene	67922-23-0	
Polychlorinated Naphthalenes (PCNs)	1,2,6,8-Tetrachloronaphthalene	67922-24-1	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5-Pentachloronaphthalene	67922-25-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,6-Pentachloronaphthalene	67922-26-3	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5,7-Hexachloronaphthalene	67922-27-4	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5,6,8-Hexachloronaphthalene	90948-28-0	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5,7,8-Hexachloronaphthalene	103426-92-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,5,8-Hexachloronaphthalene	103426-93-3	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,7,8-Hexachloronaphthalene	103426-94-4	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,6,8-Hexachloronaphthalene	103426-95-5	
Polychlorinated Naphthalenes (PCNs)	1,2,3,4,6,7-Hexachloronaphthalene	103426-96-6	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,6,7-Hexachloronaphthalene	103426-97-7	
Polychlorinated Naphthalenes (PCNs)	1,2,3,6-Tetrachloronaphthalene	149864-78-8	
Polychlorinated Naphthalenes (PCNs)	1,2,6,7-Tetrachloronaphthalene	149864-79-9	
Polychlorinated Naphthalenes (PCNs)	1,2,5,8-Tetrachloronaphthalene	149864-80-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3,8-Tetrachloronaphthalene	149864-81-3	
Polychlorinated Naphthalenes (PCNs)	1,2,7,8-Tetrachloronaphthalene	149864-82-4	
Polychlorinated Naphthalenes (PCNs)	1,2,3,7,8-Pentachloronaphthalene	150205-21-3	
Polychlorinated Naphthalenes (PCNs)	1,3,6,8-Tetrachloronaphthalene	150224-15-0	
Polychlorinated Naphthalenes (PCNs)	1,2,3,6,7-Pentachloronaphthalene	150224-16-1	
Polychlorinated Naphthalenes (PCNs)	1,2,4,6,7-Pentachloronaphthalene	150224-17-2	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,6-Pentachloronaphthalene	150224-18-3	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5,7-Pentachloronaphthalene	150224-19-4	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5,6-Pentachloronaphthalene	150224-20-7	
Polychlorinated Naphthalenes (PCNs)	1,2,4,7,8-Pentachloronaphthalene	150224-21-8	
Polychlorinated Naphthalenes (PCNs)	1,2,4,6,8-Pentachloronaphthalene	150224-22-9	

Substance Group	Specific Substance	CAS number	Common Synonyms
Polychlorinated Naphthalenes (PCNs)	1,2,3,6,8-Pentachloronaphthalene	150224-23-0	
Polychlorinated Naphthalenes (PCNs)	1,2,3,5,8-Pentachloronaphthalene	150224-24-1	
Polychlorinated Naphthalenes (PCNs)	1,2,4,5,8-Pentachloronaphthalene	150224-25-2	
Perfluorononan-1-oic-acid and its sodium and ammonium salts	Perfluorononan-1-oic-acid	375-95-1	PFNA, Heptadecafluorononan oic acid
Perfluorononan-1-oic-acid and its sodium and ammonium salts	Ammonium salt of perfluorononan-1-oic-acid	4149-60-4	Ammonium heptadecafluorononan ate
Perfluorononan-1-oic-acid and its sodium and ammonium salts	Sodium salt of perfluorononan-1-oic-acid	21049-39-8	Sodium heptadecafluorononan ate
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	Nonadecafluorodecanoic acid	335-76-2	PFDA
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	Decanoic acid, nonadecafluoro-, sodium salt	3830-45-3	
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	Ammonium nonadecafluorodecanoate	3108-42-7	
Chlorinated Flame Retardants (CFR)	Tris(1,3-dichloro-2-propyl)phosphate	13674-87-8	TDCPP, TDCP
Nickel/Nickel Compounds	Nickel	7440-02-0	
Nickel/Nickel Compounds	Nickel (II) oxide	1313-99-1	
Nickel/Nickel Compounds	Nickel (II) chloride	7718-54-9	
Nickel/Nickel Compounds	Nickel (II) chloride, hexahydrate	7791-20-0	
Nickel/Nickel Compounds	Nickel(II) sulfate	7786-81-4	
Nickel/Nickel Compounds	Nickel(II) sulfate, hexahydrate	10101-97-0	
Nickel/Nickel Compounds	Nickel(II) sulfate, heptahydrate	10101-98-1	
Nickel/Nickel Compounds	Antimony nickel titanium oxide yellow	8007-18-9	C.I. Pigment Yellow 53
Nickel/Nickel Compounds	Nickel niobium titanium yellow rutile	68611-43-8	C.I. Pigment Yellow 161
Nickel/Nickel Compounds	Cobalt titanate green spinel	68186-85-6	C.I. Pigment Green 50
Perfluorohexane-1-sulphonic acid and its salts	Perfluorohexane-1-sulphonic acid	355-46-4	
Perfluorohexane-1-sulphonic acid and its salts	ammonium perfluorohexane-1-sulphonate	68259-08-5	
Perfluorohexane-1-sulphonic acid and its salts	potassium perfluorohexane-1-sulphonate	3871-99-6	
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™")	1,4:7,10-Dimethanodibenzo[a,e]cyclooctene, 1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-	13560-89-9	Dechlorane Plus™

Substance Group	Specific Substance	CAS number	Common Synonyms
	1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-		
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™")	1,4:7,10-Dimethanodibenzo[a,e]cyclooctene, 1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-, (1R,4S,4aS,6aS,7S,10R,10aR,12aR)-rel-	135821-74-8	anti- (or exo ) Dechlorane Plus™
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™")	1,4:7,10-Dimethanodibenzo[a,e]cyclooctene, 1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-, (1R,4S,4aS,6aR,7R,10S,10aS,12aR)-rel-	135821-03-3	syn- (or endo ) Dechlorane Plus™

**ATTACHMENT B:** JIG 201, Annex B (Informative) Detailed Substance Lists with CAS Numbers and/or EC Numbers

These lists are typically not comprehensive; they represent examples of chemicals listing CAS numbers and/or EC numbers if applicable or available. In case the list is complete (and the reporting requirement is limited to those substances listed) this is indicated in a note below the respective substance category.

**TABLE — Arsenic Compounds**

<b>Arsenic</b>	<b>CAS Numbers</b>
Arsenic	7440-38-2
Chromated copper arsenate (CCA)	37337-13-6
Diarsenic pentoxide	1303-28-2
Diarsenic trioxide	1327-53-3
Triethyl arsenate	15606-95-8
Other arsenic compounds	-

**TABLE - Asbestos**

<b>Asbestos</b>	<b>CAS Numbers</b>
Asbestos	1332-21-4
Actinolite	77536-66-4
Amosite (Grunerite)	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

**TABLE — Azocolourants and azodyes which form certain aromatic amines**

<b>Aromatic Amines</b>	<b>CAS Numbers</b>
Biphenyl-4-ylamine	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2

<b>Aromatic Amines</b>	<b>CAS Numbers</b>
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
5-nitro-o-toluidine	99-55-8
4-chloroaniline	106-47-8
4-methoxy-m-phenylenediamine	615-05-4
4,4'-methylenedianiline	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine	120-71-8
4,4'-methylene-bis(2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
o-toluidine	95-53-4
4-methyl-m-phenylenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0
4-amino azobenzene	60-09-3

*Note: The European Community's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the above 22 aromatic amines.*

**TABLE — Boric Acid**

<b>Boric Acid</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Boric acid	233-139-2	10043-35-3
	234-343-4	11113-50-1

*Note: The reporting requirement refers to the sum of just those substances listed above*

**TABLE — Dibutyltin Compounds (DBT)**

<b>Dibutyltin Compounds</b>	<b>CAS Numbers</b>
Dibutyltin oxide	818-08-6
Dibutyltin diacetate	1067-33-0
Dibutyltin dilaurate	77-58-7
Dibutyltin maleate	78-04-6
Other dibutyltin compounds	-

**TABLE — Dioctyltin Compounds (DOT)**

<b>Dioctyltin Compounds</b>	<b>CAS Numbers</b>
Dioctyl Tin Oxide	870-08-6
Dioctyltin dilaurate	3648-18-8
Other Dioctyltin compounds	-

**TABLE — Disodium tetraborate, anhydrous**

<b>Boric Acid</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Disodium tetraborate decahydrate		1303-96-4
Disodium tetraborate, anhydrous	215-540-4	1330-43-4
Disodium tetraborate, pentahydrate		12179-04-3

*Note: The reporting requirement refers to the sum of just those substances listed above*

**TABLE — Specific Heavy Metal Compounds**

<b>Specific Heavy Metal Compounds</b>		
<b>Cadmium/Cadmium Compounds</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Cadmium		7440-43-9
Cadmium oxide		1306-19-0
Cadmium sulfide		1306-23-6
Cadmium chloride		10108-64-2
Cadmium sulfate		10124-36-4
Other cadmium compounds		-

<b>Specific Heavy Metal Compounds</b>		
<b>Chromium VI Compounds</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Chromium (VI) oxide		1333-82-0
Barium chromate		10294-40-3
Calcium chromate		13765-19-0
Chromium trioxide**	215-067-8	1333-82-0
<b>Lead (II) chromate*</b>	<b>231-846-0</b>	<b>7758-97-6</b>
<b>Lead chromate molybdate sulphate red*</b>	<b>235-759-9</b>	<b>12656-85-8</b>
<b>Lead sulfochromate yellow*</b>	<b>215-693-7</b>	<b>1344-37-2</b>
Sodium chromate**	231-889-5	7775-11-3
Sodium dichromate**	234-190-3	10588-01-9
<b>Strontium chromate*</b>	<b>232-142-6</b>	<b>7789-06-2</b>
Potassium dichromate**	231-906-6	7778-50-9
Potassium chromate**	232-140-5	7789-00-6
Zinc chromate		13530-65-9
Other chromium VI compounds		-
<b>Lead/lead Compounds</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Lead		7439-92-1
Lead (II) sulfate		7446-14-2
Lead (II) carbonate		598-63-0
<b>Lead (II) chromate*</b>	<b>231-846-0</b>	<b>7758-97-6</b>
<b>Lead chromate molybdate sulphate red*</b>	<b>235-759-9</b>	<b>12656-85-8</b>
Lead hydrocarbonate		1319-46-6
Lead acetate		301-04-2
Lead (II) acetate, trihydrate		6080-56-4
Lead phosphate		7446-27-7
Lead selenide		12069-00-0
Lead (IV) oxide		1309-60-0

<b>Specific Heavy Metal Compounds</b>		
Lead (II,IV) oxide		1314-41-6
Lead (II) sulfide		1314-87-0
Lead (II) oxide		1317-36-8
Lead (II) carbonate basic		1319-46-6
Lead hydroxidcarbonate		1344-36-1
<i>Lead hydrogen arsenate**</i>	232-064-2	7784-40-9
Lead (II) phosphate		7446-27-7
<b><i>Lead sulfochromate yellow*</i></b>	<b>215-693-7</b>	<b>1344-37-2</b>
Lead (II) titanate		12060-00-3
Lead sulfate, sulphuric acid, lead salt		15739-80-7
Lead sulphate, tribasic		12202-17-4
Lead stearate		1072-35-1
Other lead compounds		-
<b>Mercury /Mercury Compounds</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Mercury		7439-97-6
Mercuric chloride		33631-63-9
Mercury (II) chloride		7487-94-7
Mercuric sulfate		7783-35-9
Mercuric nitrate		10045-94-0
Mercuric (II) oxide		21908-53-2
Mercuric sulfide		1344-48-5
Other mercury compounds		-

\* REACH Substance of Very High Concern (SVHC) – pass JIG 201 screen

\*\* REACH SVHC or Draft SVHC – Not pass screen

**TABLE — Hexabromocyclododecane (HBCDD)**

<b>HBCDD and all Major Diastereoisomers</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
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Hexabromocyclododecane (HBCDD)	247-148-4 221-695-9	25637-99-4 3194-55-6
$\alpha$ -hexabromocyclododecane	NA	134237-50-6
$\beta$ -hexabromocyclododecane	NA	134237-51-7
$\gamma$ -hexabromocyclododecane	NA	134237-52-8

*Note: The reporting requirement refers to the sum of just those substances listed above*

**TABLE — Polychlorinated Biphenyls (PCBs) and specific substitutes**

<b>Polychlorinated Biphenyls (PCBs)</b>	<b>CAS Numbers</b>
Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3
Monomethyl-tetrachloro-diphenyl methane (Ugilec 141)	76253-60-6
Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	81161-70-8
Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8

**TABLE — Polychlorinated Naphthalenes (PCNs)**

<b>Polychlorinated Naphthalenes</b>	<b>CAS Numbers</b>
Polychlorinated Naphthalenes	70776-03-3
Other polychlorinated Naphthalenes	-

**TABLE — Polychlorinated Terphenyls (PCTs)**

<b>Polychlorinated Terphenyls (PCTs)</b>	<b>CAS Numbers</b>
Polychlorinated Terphenyls (all isomers and congeners)	61788-33-8

**TABLE—Polyvinyl Chloride (PVC)**

<b>Polyvinyl Chloride</b>	<b>CAS Numbers</b>
Polyvinyl chloride (PVC)	9002-86-2

Other Polyvinyl chlorides	-
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**TABLE— Short Chain Chlorinated Paraffins (SCCPs)**

Short Chain Chlorinated Paraffin's (C10-C13)	EC Numbers	CAS Numbers
Alkanes, C10-13, chloro	287-476-5	85535-84-8
Alkanes, C10-12, chloro		108171-26-2
Alkanes, C12-13, chloro		71011-12-6
Alkanes, chloro		61788-76-9
Other Short Chain Chlorinated Paraffins		-

**TABLE— Tri-substituted Organostannic Compounds**

Tri-substituted Organostannic Compounds	CAS Numbers
Triphenyltin-N, N-dimethyldithiocarbamate	1803-12-9
Triphenyltinfluoride	379-52-2
Triphenyltinacetate	900-95-8
Triphenyltinchloride	639-58-7
Triphenyltinhydroxide	76-87-9
Triphenyltin fattyacid((9-11)salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5
Triphenyltinchloroacetate	7094-94-2
Tributyltinmethacrylate	2155-70-6
Bis(tributyltin)fumalate	6454-35-9
Tributyltinfluoride	1983-10-4
Bis(tributyltin)2,3-dibromosuccinate	31732-71-5
Tributyltinacetate	56-36-0
Tributyltinlaurate	3090-36-6
Bis(tributyltin)phthalate	4782-29-0
Copolymer of alkyl (c=8) acrylate, methyl methacrylate and tributyltin methacrylate	67772-01-4

Tri-substituted Organostannic Compounds	CAS Numbers
Tributyltinsulfamate	6517-25-5
Bis(tributyltin)maleate	14275-57-1
Tributyltinchloride	1461-22-9 7342-38-3
Tributyltin cyclopentane carbonate = mixture	85409-17-2
Tributyltin-1,2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1-phenanthrenecarboxylatemix	26239-64-5
Other tri-substituted organostannic compounds	-



## Intel EPC Spec Conformance Form

### Statement of Conformance to ENVIRONMENTAL PRODUCT CONTENT (EPC) Specification DL-0002372 ([18-1201](#)) for Intel Suppliers & Outsourced Manufacturers

Completion of this form constitutes acknowledgement that the Supplier has read and understands Intel's ENVIRONMENTAL PRODUCT CONTENT SPECIFICATION FOR SUPPLIERS & OUTSOURCED MANUFACTURERS, including conformance to the European Union Directive on the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS), 2011/65/EU. Intel will require suppliers to sign and return this form upon request.

<b>Supplier Name</b>	
<b>Contact Name, Title</b>	
<b>Contact Phone</b>	
<b>Contact Email</b>	

<b>Supplier Declaration</b>	
1) I have read and understand the Environmental Product Content Specification for Intel Suppliers & Outsourced Manufacturers.	<input type="checkbox"/> Yes
2) I acknowledge that all raw materials, parts or products supplied to Intel meet the Intel Environmental Product Content Specification for Suppliers and Outsourced Manufacturers	<input type="checkbox"/> Yes <input type="checkbox"/> No (complete below)
2a) If "No" - To the right is the list of substance(s) or condition(s) which <b>do not comply</b> with the Intel Environmental Product Content Specification. Please notify Intel Commodity Management if any exceptions are listed.	
3) I acknowledge that all raw materials, parts or products supplied to Intel were manufactured without the use of Ozone Depleting Substances (ODS). (IRS Tax code 26 CFR § 52.4682, Referenced in Montreal Protocol -	<input type="checkbox"/> Yes - Year manufacturing site became ODS free: _____ (Please skip Addendum B questions 1-9)

<a href="http://ozone.unep.org/Ratification_status/evolution_of_mp.shtml">http://ozone.unep.org/Ratification_status/evolution_of_mp.shtml</a>	<input type="checkbox"/> No (complete #3a below, and complete Addendum B questions 1-9)
3a) If "No" - List the type and quantity of ODS used to manufacture products sent to Intel.	
<b>Addendum B (Only complete section if answer to Question #3 above is "No")</b>	
1) Does Supplier have a goal and plan to phase out Ozone Depleting Substances (ODS)?	Plan / Goal:
2) Is Supplier meeting the plan?	
3) Are any of Intel's specifications impacting the Supplier's efforts?	
4) Is Supplier providing Intel with products which contain or use ODSs in the manufacturing process?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5) Is Intel required to pay any ODS import taxes on Supplier's supplies or parts?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6) Does Supplier clean product(s) shipped to Intel with CFCs, methyl chloroform (TEA), or carbon tetrachloride?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please list the cleaning agents:
7) How will Supplier assure product cleanliness in the future? i.e. Validate that the elimination of a cleaning process, or the use of an alternate cleaning solvent will not adversely affect product quality and reliability.	
8) Please describe in detail the policy of Supplier's country, in response to the Montreal Protocol on substances that deplete the ozone layer, to encourage the reduction in production and use of ozone-depleting chemicals. If Supplier is not aware of your country's policy, please state this fact.	
9) If applicable, please describe the new alternative product or the replacement technology used instead of the ODS process. The description should include the type of equipment involved, the month and the year that the new technology was placed in service and the address of the firm from whom the technology was purchased.	
<b>Signature</b>	

My typed name below is acknowledgment that I am certified and authorized by the above-named Supplier to provide the information in this form. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form.

Name:

Date (MM/DD/YYYY):

## 6.0 Revision History

Rev	Date	Change Summary
1	7/2003	Spec Written
2	8/2004	Additional restricted materials added; general edits
3	10/2004	Additional RoHS restrictions and exemptions added
4	2/2005	Added Supplier DoC and RoHS definitions
5	2/2006	Additional restricted materials added per Joint Industry Guide (JIG); Added JIG B list of reporting substances. EU RoHS Materials/Parts Supplier SDoC exemptions and certification language updated; added EU Packaging Directive SdoC; general edits
6	2/2007	Added US State Mercury & US State flame retardant restrictions to section 3.2.1, Separated Intel Environmental Product Content Spec (EPC) affirmation statement from EU RoHS SDoC form; updated Intel EU ROHS SDOC form to include new exemptions and moved to Appendix D, updated Packaging Directive SDOC form, added IPC 1752 material data exchange form (pilot) to Appendix D; moved EU RoHS exemption list to Appendix E.
7	7/2008	IEEE 1680 EPEAT Industry Std reporting thresholds for "optional" criteria. New reporting requirements added to support EU REACH Regulation. Global battery legislation changes. Reformatted document to clarify restrictions vs. reporting requirements. Added Halogenated Aromatic Substances and regulatory citation to the section 3.2.2. This restriction only applies to transformers and capacitors.
8	9/2008	Updated tear sheet to include required IRS Ozone Depleting Substances form. (example under addendum B)
9	8/2009	Modified to meet new Intel spec format. Updated tables to align with new Jig Ed 4.1 regulated, assessment and information only. Added new packaging requirements. Updated EPC letter. Captured all RoHS items in Attachment E.
10	11/2010	Updated to Jig Ed 3.0 & 3.1. Cobalt dichloride, dibutyltin/dioctyltin compounds, trisubstituted organostannic compounds and dimethyl fumarate have been added. DecaDBE is now covered under the generic PBDE entry. Added Intel column for Prohibited, Controlled and Reportable. Added conflict materials statements in section 5.5.1. Updated RoHS exemptions list in Attachment E for 24Sept10 commission decision. Added new Intel version of JIG 101 in Attachment D. Post Signature Sign-Off: Removed: Internal Use only as this spec is intended for sharing with Intel's suppliers. Administrative change approved by Doc control (KP 1/28/11)
11	6/2012	Converted to Materials template. Section 2: Communicated transition from IPC material declarations to IEC. Updated to JIG 101 Ed. 4.1 to include 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP), 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP), 4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3), Bis(2-methoxyethyl) ether, Bis(2-methoxyethyl) phthalate, Chlorinated flame retardants, Chlorinated flame retardants, 2,2'-dichloro-4,4'-methylenedianiline (MOCA), N,N-dimethylacetamide (DMAC), Pentazinc chromate octahydroxide. Implemented Intel requirement of banning the following phthalates in cables (all other applications: reportable): Bis(2-methoxyethyl) phthalate, Bis (2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), and Benzyl butyl phthalate (BBP). Added JIG 201 Ed. 1. Added Di-isodecyl phthalate to JIG 201 table. Added Di-n-hexyl phthalate (DnHP)

Rev	Date	Change Summary
		reporting requirement to JIG101 and JIG201 tables. Captured new Intel requirements for both tables and provided explanation of Intel requirements in sections 3.1.2.2 and 3.1.5.2. Added additional information and tables capturing Intel's requirements around EU RoHS exemption phase-outs. Updated section 3.1.7.1 with current Conflict Mineral program requirements; update Homogenous Material definition to match EU RoHS Recast Directive 2011/65/EU. Added CA Prop 65 references.
12	10/2012	Corrected Intel prohibited phthalates in cables (all other applications: reportable) list to: Bis (2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP), and Benzyl butyl phthalate (BBP)
13	04/2014	<p>General: Updated all EU RoHS directive references to recast version. Removed references in exemption tables (captured in EPC body). Corrected attachment references.</p> <p>Section 1: Added cable reporting requirements (sec. 1.1.2.5).</p> <p>Section 3: Added 'California Proposition 65: Labeling Required' to Intel criteria. Replaced JIG 101 tables with IEC 62474 table, D5.00. Updated Intel requirements for substances anticipated to be in scope of the next RoHS (HBCDD, BBP, DEHP, DBP and DIBP). Added regulatory reference to Denmark: Restrictions on the Import and Sale of Products for Indoor Use Containing Phthalates, Order No. 1113/2012 for BBP, DEHP, DBP and DIBP. Added DINP inclusion under CA Prop 65. Added 'Labeling Required' criteria to CA Prop 65 substances (DINP, DEHP, BBP, DBP, DIBP). Updated exemption expiration expectations. Moved the REACH SVHC reportable lists section from section 3.1.6.2 to section 3.1.4 and called out applicability to product, batteries and packaging. Updated Conflict Mineral reporting expectations.</p> <p>Section 4: Updated outdated links. Added supplier reporting email address.</p> <p>Section 5: Added Conflict Mineral definition</p> <p>Section 6: Updated all attachments. Replaced JIG 101 table in Attachment A with IEC 62474 reference substances list. Noted anticipated regulatory EU RoHS exemption expiry dates. Added phthalate reporting request template (see Attachment F).</p> <p>New Owner/FGL</p>
14	09/2014	Applied RAPID template – Not included in external publications.
15	02/2015	Owner Change – Evelyn Zuniga

Rev	Date	Change Summary
16	01/2016	<p>Title Page: Applied SNAP Governing Specification template – not included in external publications</p> <p>Section 1: Updated 1.1.2.3 to included equipment suppliers and clarified EPC spec confirming conformance; updated IEC and IPC declaration requirements; general edits.</p> <p>Section 2: Clarified supplier and contract manufacturer responsibility</p> <p>Section 3: Updated manufacturing restrictions; excluded fab process chemicals from general product content restrictions; updated California Proposition 65 labeling language; updated Table A to the IEC 62474 D10.00 list (2 substances removed, 37 substances added); updated EU RoHS exemption expirations to reflect most current dates; updated the EU REACH Requirements to include equipment and spare parts, and included supplier expectations regarding Sept 2015 EU Court of Justice ruling on the interpretation of an “article”; updated Conflict Mineral requirements; general edits</p> <p>Section 4: Updated outdated links; removed EICC link and added Conflict Free Sourcing Initiative link; updated Conflict Minerals Inbox; added CA Prop 65 link</p> <p>Section 5: Updated Conflict Minerals definition; added definitions for ‘DRC conflict free’ and ‘Reasonable Country of Origin Inquiry’.</p> <p>Section 6. Updated Attachment A to the IEC 62474 D10.00 Reference Substances list; updated Attachment C to fillable form; updated Attachment E with anticipated EU RoHS exemption expiry dates; updated REACH and CA Prop 65 substance table in Attachment F and modified supplier response template.</p>
17	02/2016	<p>Section 1: Removed equipment suppliers from 1.1.2.3 – not included in external publications</p> <p>Section 3: Added clarification Footnote 1 to Table A, Reporting Threshold column; Removed equipment and spare parts suppliers from 3.1.4 EU REACH requirements – not included in external publications</p>
18	01/2017	Owner Change
19	03/2017	Owner Change
20	08/2018	Content updated: Section 3: Materials, Manufacturing requirements, Packaging section. California Prop 65 label requirements updated. Expiring Exemption table updated. Packaging SDoC (attachment D) and F removed.
21	03/2020	FGL Change; Chemical substances added to the IEC 62474 Declarable Substances List. The Conflict Mineral section was renamed to Responsible Minerals Responsibility and the section was updated. The Intel MCD tool has been removed from acceptable reporting formats.
22	02/2022	Chemical substances added to the IEC 62474 Declarable Substances List. The Responsible Minerals Requirements section was updated (3.7). The Manufacturing Requirements section has been updated (3.1;3.8.1;3.8.2) to reflect updates to regulation. IEC62474 Declarable Substance List update to D.23 revision. A new general requirement section added at the beginning of 3.0 outlining general requirements.
23	05/2022	Additions to IEC table per IEC 62474 Declarable Substance list version D24.

Rev	Date	Change Summary
23.1	07/2023	Updated Spec number to align to Document Locator numbering convention. Updated Contacts.
23.2	05/2024	FGL Change
24.0	05/2024	Expired – DL dB
24.1	05/2024	Owner Change
25.0	06/2024	Reinstate without Change
26.0	06/2024	Updated Roles and responsibility table 2.0. Minor update to section 3.0. Updated section 3.1 and removed table 3 of section 3.1. Updated IEC 62474 DSL table in section 3.2.3 per latest DSL published by IEC. Updated Table for 3.5. Update section 3.6.1. Updated section 3.6.2. Updated section 3.7. Updated 3.8. Updated reference table in section 4.0.
26.1	08/2024	Updated table under section 3.5 to remove one chemical that is covered by the RoHS table in section 3.2.3.
27.0	05/2025	Update Declaration of Conformance in Section 1.1.2 to require full material disclosures. Additional Approver Change.