

## Environmental Product Content Specification 18-1201

**1. What it is:** ENVIRONMENTAL PRODUCT CONTENT SPECIFICATION FOR SUPPLIERS & OUTSOURCED MANUFACTURERS  
To define environmental requirements for Intel suppliers and outsourced manufacturers. Intel sets high environmental standards for its products and requires that its suppliers and outsource manufacturers enable similar environmental performance.

**(Note: This document was formerly known as BS-MTN-0001.)**

**Groups:** Includes all raw materials, parts, components or products that are ultimately incorporated into the product that Intel sells. For outsourced manufacturers, this includes products produced by the manufacturer on behalf of Intel. This specification also covers packaging materials.

**Issued:** Dec 31, 2010

**Expires:** Dec 31, 2012

(max = 2 Years)

**2. Why use it:**

1. REQUIREMENTS: In this specification, environmental requirements are defined in Section 5 below.
  - 5.1 [Manufacturing restrictions](#)
  - 5.2 [Product content restrictions](#)
  - 5.3 [Battery content restrictions](#)
  - 5.4 [Packaging requirements](#)
  - 5.5 [Potential Future Material Restriction and/or Reporting "Watch Lists"](#)
  - 5.6 Material Declaration Requirements
2. DOCUMENTATION: This document shall be referenced in the contract & the purchasing agreement document.
3. AFFIRMING TO THE EPC: All part and/or material suppliers must review this specification & sign the conformance form in attachment B. The signed form must be returned to the Intel Commodity Manager for submission into Intel's data base or input through the supplier portal.
4. DECLARATION OF CONFORMANCE: Intel has moved to the JIG 101 and IPC-1752 .xml data transfer schema and implemented a data management system that is accessed through the Supplier Portal. Additional information regarding the registration and upload of the JIG 101/ IPC-1752 documents is available at <https://supplier.intel.com/static/EHS/materials.htm>.
5. PACKAGING REQUIREMENTS: All shipping packaging suppliers must review this specification & sign the conformance form in Appendix C. The signed form must be returned to the Intel Packaging Engineer for submission into Intel's data base.

**3. How you use:**

### ROLES AND RESPONSIBILITIES:

1. Supplier and contract manufacturer to review this specification and sign and return the form in Attachment B for conformance to this specification.
2. Supplier and contract manufacturer to review this specification and sign and return the form in Attachment D for compliance with the EU RoHS Directive for materials/parts supplied to or on behalf of Intel.
3. The Commodity manager will ensure that the suppliers & contract manufacturers have been provided this information & responded with a signature on the appropriate form(s) in Attachment B & D.
4. The Packaging Engineer will ensure that the Intel AML (Approved Manufacturer's List) suppliers have been provided with this information & responded with a signature on the form in Attachment C.
5. Corporate Products Regulations & Standards (CPRS) group will provide the restricted materials information to the specification owner.

**4. Resources:**

1. Chemical Selection Guidelines: <https://supplier.intel.com/static/EHS/materials.htm>
2. CAS #s of specific chemicals covered: <https://supplier.intel.com/static/EHS/materials.htm>
3. European Chemical Agency (ECHA) REACH Candidate List SVHC - [http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)
4. Joint Industry Guide (JIG) - <http://CE.ORG/JIG>
5. EICC- Electronic Industry Citizenship Coalition: <http://www.eicc.info/Home.html>

### DEFINITIONS:

**Homogeneous Material:** Per European Union Frequently Asked Question (FAQ) Guidance Document on RoHS and WEEE, homogenous material means a material that can not be mechanically disjointed into different materials. The term "homogeneous" means "of uniform composition throughout". Examples of "homogeneous materials" are individual types of: plastics, ceramics, glass, metals, alloys, paper, board, resins, coatings. The term "mechanically disjointed: means that materials can, in principle, be separated by mechanical actions such as: unscrewing, cutting, crushing, grinding and abrasive processes.

### Section 6 - Attachments

**Attachment A** contains the JIG 101 Ed.3.1 ANNEX B Detailed List of Declarable Substances

**Attachment B** contains an example of the Intel EPC Spec Conformance Form

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**Attachment C** contains an example of the Intel Packaging Environmental Regulatory Compliance Form

**Attachment D** contains an example of the supplier RoHS/ JIG101 declaration form (IPC 1752)

**Appendix E** contains a list of example EU RoHS exemptions that are currently approved by the EU Technical Advisory Committee (TAC).

**Section 7 – Revision History**

**5. Restrictions:**

**5.1 MANUFACTURING RESTRICTIONS**

The following materials are prohibited in manufacturing. This prohibition includes their use in the manufacturing of raw materials, parts or products supplied to Intel that are ultimately incorporated into the product that Intel sells. Intel requires every supplier to complete and return Attachment B as proof of compliance with the following requirement.

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).

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
Certain Glycol Ethers (Attachment A)	Certain ethylene glycol ethers were traditionally used as solvent in semiconductor manufacture.	Prohibited	Semiconductor industry voluntarily Prohibited the use of certain ethylene glycol ethers in manufacture of semiconductors.

**5.2 GENERAL PRODUCT CONTENT RESTRICTIONS AND REPORTING:**

The following materials are prohibited in raw materials, 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 list in the table.

**A. GENERAL RESTRICTIONS**

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

**IPC 1752 JIG-101 Ed 2.0 Material Composition Declaration for Electrotechnical Products- dated April 28, 2009 (copyrighted document, reproduced with permission from CEA).**

The Joint Industry Guide (JIG 101 Ed 2.0) 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.

**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 electrotechnical products. Reporting is used to facilitate company assessment regarding widely adopted industry environmental agreements or standards.

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**Table A – JIG Declarable Substance List**

Substance/ Category <sup>i</sup>	CAS #/ EC #	Criteria Rationale for Disclosure 1-R (Regulated) 2-A (For Assessment Only) 3-I (For Information Only)	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Intel Requirement
Asbestos	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA; Swiss Ordinance on Reduction of Risk from Chemical Products	All	Intentionally added	Insulator, filler, pigment, paint, talc, adiabatic material	<b>Prohibited</b>
Azocolourants and azodyes which form certain aromatic amines <sup>ii</sup>	Not applicable <sup>ii</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 product <sup>ii</sup>	Pigment, dyes, colorants	<b>Controlled</b>
Beryllium oxide (BeO) <sup>i</sup>	CAS# 1304-56-9	I	DIGITALEUROPE <sup>iii</sup> /CECED/ AeA <sup>iv</sup> / EERA guidance	All	0.1% by weight (1 000 ppm) of the product	Ceramics	<b>Reportable</b>
Boric acid <sup>i</sup>	CAS# 10043-35-3 & 11113-50-1 / EC# 233-139-2 & 234-343-4	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 (1 000 ppm) of the product	Wood veneers/ pressed wooden panels As flame retardant in wood, cotton and other plant derived material	<b>Reportable</b>
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	See Annex B	I	DIGITALEUROPE <sup>iii</sup> /CECED/ AeA <sup>iv</sup> / EERA guidance,	Plastic parts >25 grams other than in printed wiring board assemblies <sup>v</sup>	0.1% by weight (1 000 ppm) of plastic material	flame retardant for housing, connectors, package molding sealing	<b>Reportable</b> <b>All non-metal parts, regardless of weight</b>
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	See Annex B	I	IPC-4101 and IEC 61249-2-21	Printed wiring board laminate <sup>v</sup>	0.09% total bromine content by weight (900 ppm) in the laminate	Printed wiring board laminate	<b>Reportable</b>

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Cadmium/cadmium compounds	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006; 2002/95/EC and 2005/618/EC China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	All, except batteries	0.01% by weight (100 ppm) of homogeneous materials	Pigment, anti- corrosion surface treatment, electric and electronic materials, optical material, stabilizer, plating, pigment for resin, fluorescent, electrode, solder, electric contact, contact point, zinc plating, stabilizer for PVC	Controlled
Cadmium/cadmium compounds	See Annex B	R	Swiss Ordinance on Reduction of Risk from Chemical Products; EU Directive 2006/66/EC	Batteries <sup>vi</sup>	0.0005% by weight (5 ppm) of battery	Batteries	Controlled
Chromium VI compounds	See Annex B	R	EU Directive 2002/95/EC and 2005/618/EC; ANNEX XVII of REACH Regulation (EC) No 1907/2006; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	All	0.1% by weight (1 000 ppm) of homogeneous materials	Pigment, paint, ink, catalyst, plating, anti- corrosion surface treatment, dye, paint dryer, paints adhesion enhancement	Controlled
Cobalt dichloride (CoCl <sub>2</sub> ) <sup>i</sup>	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 (1 000 ppm) of the product	pneumatic panels to indicate water contamination	Reportable
Diarsenic pentoxide <sup>i</sup>	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 (1 000 ppm) of the product	Glass	Reportable

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Diarsenic trioxide <sup>i</sup>	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 (1 000 ppm) of the product	Glass	Reportable
Dibutyltin (DBT) compounds	See Annex B	R	COMMISSION DECISION 2009/425/EC	All	0.1% by weight (1 000 ppm) of tin in a material <sup>vii</sup>	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Controlled
Diocetyl tin (DOT) compounds	See Annex B	R	COMMISSION DECISION 2009/425/EC	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles (c) two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1% by weight (1 000 ppm) of tin in a material <sup>vii</sup>	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Controlled
Dimethyl fumarate <sup>i</sup>	CAS# 624-49-7	R	COMMISSION DECISION 2009/251/EC	All	0.00001% by weight (0.1 ppm) in a material <sup>vii</sup>	Biocide, mold treatment of electronic leather seats, including recliners, massage chairs	Controlled
Disodium tetraborate, anhydrous <sup>i</sup>	CAS# 1303-96-4, 1330-43-4 & 12179-04-3 / EC# 215-540-4	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 (1 000 ppm) of the product	Wood veneers/ pressed wooden panels	Reportable

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Fluorinated greenhouse gases (PFC, SF6, HFC)	See Annex B	R	EU Reg. No. 842/2006	All	Intentionally added	Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas	Prohibited
Formaldehyde <sup>1</sup>	CAS# 50-00-0	R	US/CA CARB Rule	Composite wood (plywood, particle board, MDF) products or components <sup>viii</sup>	Intentionally added	Stereo cabinets, kiosk enclosures	Controlled
Formaldehyde <sup>1</sup>	CAS# 50-00-0	R	Austria - BGB I 1990/194: Formaldehydverordnung, §2, 12/2/1990; Lithuanian Hygiene Norm HN 96:2000 (Hygiene standards and regulations)	Textiles	0.0075% by weight (75 ppm) of textile product	Textiles	Controlled
Hexabromocyclododecan e (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 (1 000 ppm) of the product	Flame retardant mainly used for expanded polystyrene and some types of fiber	Reportable

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Lead/lead compounds	See Annex B	R	EU Directive 2002/95/EC and 2005/618/EC; ANNEX XVII of REACH Regulation (EC) No 1907/2006; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	All, except as noted below	0.1% by weight (1 000 ppm) of homogeneous materials	Rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free- cutting 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 additive	Controlled
Lead/lead compounds	See Annex B	R	U.S. Consumer Product Safety Improvement Act	Consumer products designed or intended primarily for children 12 years of age or younger	0.03% by weight (300 ppm) of the children's product	Pigment, paint, stabilizer, colorant	Controlled
Lead/lead compounds	See Annex B	R	U.S. Consumer Product Safety Improvement Act	Paint and similar surface coatings of toys and other articles intended for use by children	0.009% by weight (90 ppm) of surface coating	Pigment, paint, stabilizer, colorant	Controlled
Lead/lead compounds	See Annex B	R	US/CA Proposition 65 Case law	Cables/cords with thermoset or thermoplastic coatings	0.03% by weight (300 ppm) of surface coating	Cables/cords	Reportable
Lead/lead compounds	See Annex B	R	EU Directive 2006/66/EC	Batteries <sup>vi</sup>	0.004% by weight (40 ppm) of battery	Batteries	Controlled



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Lead chromate <sup>i</sup>	CAS# 7758-97-6 EC# 231-846-0	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 (1 000 ppm) of the product	Colorant in plastics; Colorant in paint	Reportable
Lead chromate molybdate sulphate red (C.I. Pigment Red 104) <sup>i</sup>	CAS# 12656-85-8 EC# 235-759-9	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 (1 000 ppm) of the product	Colorant in plastics; Colorant in red paint	Reportable
Lead sulfochromate yellow (C.I. Pigment Yellow 34) <sup>i</sup>	CAS# 1344-37-2 EC# 215-693-7	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 (1 000 ppm) of the product	Colorant in plastics; Colorant in yellow paint	Reportable
Mercury/mercury compounds	See Annex B	R	Vermont act relating to comprehensive management of exposure to mercury; Rhode Island General Laws 23-24.9 and amendment of 2007; Louisiana Mercury Risk Reduction Act; ANNEX XVII of REACH Regulation (EC) No 1907/2006; EU Directives 2002/95/EC and 2005/618/EC; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	All, except batteries	Intentionally added or 0.1% (1 000 ppm) at homogeneous material <sup>ix</sup>	Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	Prohibited

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Mercury/mercury compounds	See Annex B	R	New York : Battery reduction and elimination N.Y. Env'tl. Conserv. § 27- 0719; Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; China QZHG 1997 No. 4: Regulation on mercury content limitation for batteries; Korea: Law on quality management and control of safety of industrial products Battery regulation; EU Directive 2006/66/EC	Batteries <sup>vi</sup>	0.0001% by weight (1 ppm) of battery	Batteries	Controlled
Nickel <sup>1, x</sup>	CAS# 7440-02- 0	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006	All, where prolonged skin contact is expected <sup>viii</sup>	Intentionally added	Stainless steel, plating; example application for prolonged skin contact is an ear bud (headphone), mobile phone	Controlled
Ozone depleting substances	See Annex B	R	Montreal Protocol EU EC No. 2037/2000 EC 1005/2009 US Clean Air Act	All	Intentionally added	Refrigerant, foaming agent, extinguishant, solvent cleaner	Prohibited
Perchlorates	See Annex B	R	US/CA DTSC Rulemaking	All	0.0000006% by weight (0.006 ppm) of the product	Coin cell batteries	Reportable

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Perfluorooctane sulfonate (PFOS)	See Annex B	R	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EC) No 552/2009; Canadian Environmental Protection Act SOR/SOR/2008-178	All	Intentionally added	Antistatic agent for films and plastics	Prohibited
Phenol,2-(2H-benzotriazol- 2-yl)-4,6-bis(1,1- dimethylethyl) <sup>i</sup>	CAS# 3846-71- 7	R	Japan Law concerning the evaluation of chemical substances	All	Intentionally added	Adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers	Prohibited
Bis (2-ethylhexyl) phthalate (DEHP) <sup>i</sup>	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)	All	0.1% by weight (1 000 ppm) of the product	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Reportable
Dibutyl phthalate (DBP) <sup>i</sup>	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 (1 000 ppm) of the product	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Reportable
Benzyl butyl phthalate (BBP) <sup>i</sup>	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 (1 000 ppm) of the product	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Reportable
Diisobutyl phthalate (DIBP) <sup>i</sup>	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 13.01.2010)	All	0.1% by weight (1 000 ppm) of the product	plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Reportable

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Selected Phthalates Group 1 (BBP, DBP, DEHP)	See Annex B	R	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% by weight (1 000 ppm) in plasticized material <sup>xi</sup>	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Controlled
Selected Phthalates Group 2 (DIDP, DINP, DNOP)	See Annex B	R	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% by weight (1 000 ppm) in plasticized material <sup>xi</sup>	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Controlled
Polybrominated biphenyls (PBBs)	See Annex B	R	EU Directive 2002/95/EC and 2005/618/EC; China MII Methods; Korea RoHS; Japan J-MOSS	All	0.1% by weight (1 000 ppm) in homogeneous material	Flame retardant	Prohibited
Polybrominated diphenylethers (PBDEs)	See Annex B	R	EU Directive 2002/95/EC and 2005/618/EC; China MII Methods; Korea RoHS; Japan J-MOSS	All	0.1% by weight (1 000 ppm) in homogeneous material	Flame retardant	Prohibited
Polychlorinated biphenyls (PCBs) and specific substitutes	See Annex B	R	Japan Law concerning the evaluation of chemical substances; ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA.	All	Intentionally added	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; plasticizers, fire retardants, coatings for electrical wire and cable, dielectric sealants	Prohibited

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Polychlorinated terphenyls (PCTs)	See Annex B	R	Japan Law concerning the evaluation of chemical substances; ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA.	All	Intentionally added	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; plasticizers, fire retardants, coatings for electrical wire and cable, dielectric sealants	Prohibited
Polychlorinated naphthalenes (more than 3 chlorine atoms)	See Annex B	R	Japan Law concerning the evaluation of chemical substances	All	Intentionally added	Lubricant, paint, stabilizer (electric characteristic, flame- resistant, water- resistant) insulator, flame retardant	Prohibited
Polyvinyl chloride (PVC)	See Annex B	I	IEEE1680 (EPEAT: Electronic Product Environmental Assessment Tool)	All	0.1% by weight (1 000 ppm) of the product	Insulator, chemical resistance, transparency, sheath material	Reportable
Radioactive substances	See Annex B	R	EU-D 96/29/Euratom; Japan Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986; US NRC	All <sup>viii</sup>	Intentionally added	Optical properties (thorium), measuring devices, gauges, detector	Prohibited
Refractory Ceramic Fibres, Aluminosilicate	See Annex B	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 (1 000 ppm) of the product	Insulation in high- temp test equipment	Reportable
Refractory Ceramic Fibres, Zirconia Aluminosilicate	See Annex B	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 (1 000 ppm) of the product	Insulation in high- temp test equipment	Reportable

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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 (1 000 ppm) of the product	Plasticizer for PVC, flame retardant	Prohibited
Tetraboron disodium heptaoxide, hydrate <sup>i</sup>	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 (1 000 ppm) of the product	Wood veneers/ pressed wooden panels	Reportable
Tri-substituted organostannic compounds	See Annex B	R	Commission Decision 2009/425/EC; Japan Law concerning the evaluation of chemical substances	All	0.1% by weight (1 000 ppm) of tin in a material <sup>vii</sup>	Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, anti-fungal agent, paint, pigment, antistaining	Controlled
Tributyl tin oxide (TBTO) <sup>i</sup>	CAS# 56-35-9 EC# 200-268-0	R	Japan Law concerning the evaluation of chemical substances Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	All	Intentionally added or 0.1% by weight (1 000 ppm) of the product <sup>ix</sup>	Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner	Prohibited
Tris (2-chloroethyl) phosphate (TCEP) <sup>i</sup>	CAS# 115-96-8 EC# 204-118-5	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 (1 000 ppm) of the product	Flame retardant	Reportable

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Substance/ Category <sup>i</sup>	CAS #/ EC #	Criteria Rationale for Disclosure 1-R (Regulated) 2-A (For Assessment Only) 3-I (For Information Only)	Key Legal and Regulatory or Industry Standard/Agreement Citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use	Intel Requirement

- i* When a substance is listed in Table A with CAS number, then the reporting applies to the substance with that specific CAS number only.
- ii* The European Community's ban applies to azocolorants 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 azocolorants and azodyes.
- iii* Formerly known as EICTA
- iv* Now part of TechAmerica
- v* A printed wiring board laminate refers to the layered board materials excluding surface finishes and components whereas a printed wiring board assembly refers to an assembly that uses a printed wiring board laminate for component mounting and interconnecting purposes.
- vi* The battery reporting threshold level is based on the strictest known legal requirement. However, for simplification, the same reporting threshold level is set for all kind of batteries, even if the underlying legal requirement is only applicable for only one specific battery type.
- vii* Commission Decision 2009/425/EC 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. 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.
- viii* Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. The regulatory limits are:
  - Formaldehyde in composite wood products - 0.08 ppm until 2010 (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.
- ix* See Annex C for clarification of how the two reporting thresholds apply.
- x* Nickel must be reported in certain regulated applications where it is likely to result in prolonged skin exposure (e.g., an outer enclosure for a portable electronic product designed to be carried). Use of nickel or nickel contained in components and parts designed to be located inside the outer enclosure of a product need not be reported.

*xi 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.*

See definition in Section 4 for homogenous material. Restrictions apply unless an approved, valid exemption exists. See Appendix E for EU RoHS exemption examples. Please refer to the official EU Commission web site for the latest list of exemptions.

**A. EU REACH RESTRICTIONS**



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5.3 BATTERY CONTENT RESTRICTIONS: The following materials are prohibited for use in batteries.

Substance/ Category(1)	CAS #/EC#	Rationale for Disclosure: 1-Regulated 2-Assessment 3-Information	Key Legal and Regulatory or industry standard/ agreement citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use
Cadmium/cadmium compounds	See Attachment A: Annex B	R	Swiss Ordinance on Reduction of Risk from Chemical Products; EU Directive 2006/66/EC	Batteries (2)	0.0005% by weight (5 ppm) of battery	batteries
Lead/lead compounds	See Attachment A: Annex B	R	EU Directive 2006/66/EC	Batteries (2)	0.004% by weight (40 ppm) of battery	batteries
Mercury/mercury compounds	See Attachment A: Annex B	R	New York : Battery reduction and elimination N.Y. Env'tl. Conserv. § 27-0719; Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; China QZHG 1997 No. 4: Regulation on mercury content limitation for batteries; Korea: Law on quality management and control of safety of industrial products Battery regulation; 2006/66/EC	Batteries (2)	0.0001% by weight (1 ppm) of battery	batteries
Perchlorates	See Attachment A: Annex B	R	US/CA DTSC Rulemaking	All	0.0000006 % by weight (0.006 ppm) of the product	Coin cell batteries

(1) When a substance is listed in Table A with CAS number, then the reporting applies to the substance with that specific CAS number only.. For substances without a specific CAS number, refer to Attachment A: Annex B tables to find examples of common substances within that substance category.

(2) The battery reporting threshold level is based on the strictest known legal requirement. However, for simplification, the same reporting threshold level is set for all kind of batteries, even if the underlying legal requirement, is only applicable for only one specific battery type.

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### 5.4 PACKAGING REQUIREMENTS

A. PACKAGING CONTENT RESTRICTIONS: The following materials are prohibited for use in product packaging materials used for transport, etc. (e.g. trays, reels, tubes, boxes, foam materials, etc)

Substance/Category(1)	CAS #/EC#	Key Legal and Regulatory or industry standard/ agreement citation	Reportable Application(s)	Threshold Level (Reporting level)	Examples of Use
Lead, Mercury, Cadmium, Chromium (VI), Noxious and other Hazardous substances	See Annex B	94/62/EEC, Packaging and Packaging Waste	All	100 ppm (total)	Packaging/Packaging Labels/Packaging Inks
Cobalt Dichloride	7646-79-9	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 <sup>1</sup>	All	0.1 wt% (1000 ppm)	Humidity Indicator Cards (HIC's)
Dimethyl Fumarate (DMF)	624-49-7	EU 2009/251/EC	All	0.1 mg/kg (1000 ppm)	Silica Gel Dessicants
Note <sup>1</sup> : Any REACH Candidate List Substance of Very High Concern (SVHC) above 0.1 wt% in an article requires reporting. See <a href="http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp">http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp</a> for entire REACH Candidate List SVHC.					

B. PACKAGING SUPPLIER DECLARATION FORM: Refer to Attachment C for Packaging specific Supplier Declaration of Conformance Form. Note that an actual signature is required. Please send an electronic copy of the completed and signed form to the responsible Intel Packaging Engineer.

### 5.5 FUTURE MATERIAL RESTRICTION AND/OR REPORTING

#### 5.5.1 Conflict Metal Reporting:

On July 21, 2010 President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act (Wall Street Reform Act). A part of the Wall Street Reform Act regulates for the first time "conflict minerals." The legislation requires companies like Intel that are listed on a U.S. stock exchange to disclose annually to the Securities and Exchange Commission (SEC) whether our products were produced with conflict minerals sourced from the Democratic Republic of the Congo (DRC) or adjoining countries. The SEC is developing regulations to implement these "conflict mineral" requirements, which initially apply to tin, tantalum, tungsten and gold. Intel will also be tracking Cobalt (Co) as part of its Intel Socially Responsible Sourcing Statement. <https://supplier.intel.com/supplierhub/>. While we can't be certain what the new regulations will require when published on or before April 2011, based on the legislation, we know Intel will have to provide a description of the measures we take to exercise due diligence on the source and chain of custody of such minerals in our supply chain; furthermore, we anticipate the SEC and our customers will expect to audit Intel as to our due diligence. Accordingly, at a minimum, we expect our suppliers to:

1. to publish on their web site a DRC conflict-free mineral policy. Key aspects of a good DRC conflict free mineral policy include:
  - a. A public recognition (e.g., letter or statement on their web site) of the problem and their commitment to work towards resolution of the problem.
  - b. A commitment from the company to purchase materials that do not contribute to fueling the armed conflict in the Democratic Republic of Congo.
  - c. A commitment from the company to ask their supply chain for their response to items a & b, and to drive expectations that their supply chain purchases conflict free minerals and materials.
  - d. A commitment to publicly report out on their progress, with dates and plans for addressing this issue.
  - e. A commitment to work with their industry and other partners to help find solutions.

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2. provide products that contain Tin, Tantalum, Tungsten and gold sourced from smelters, refineries or ore processors that have been verified as not contributing to fueling the armed conflict in the Democratic Republic of Congo ("DRC Conflict Free").
3. Electronics Industry Citizenship Coalition (EICC) will publish a list of smelters, refineries or ore processors that are DRC conflict free starting 2011. Supplier is expected to verify that all of the smelters or refineries in their supply chain are contained in the list. For those smelters and refineries used in your supply chain that are not shown on the EICC smelter audit list, supplier will need to incorporate those smelters and refineries into the EICC validation process.
4. demonstrate that products containing cobalt have been verified as not contributing to fueling the armed conflict in the Democratic Republic of Congo ("DRC Conflict Free").
5. allow Intel to audit the supplier's compliance to conflict free regulation and Intel's Socially Responsible Sourcing Statement.
6. give Intel permission to share audit and other relevant due diligence information provided by the supplier with our customers, industry trade groups and/or government regulators.

Intel expects suppliers who use tin, tantalum, tungsten, gold and cobalt in the products or materials they sell to Intel, to determine whether they can meet the requirements set forth above. Suppliers must be able to identify and verify their sources of minerals are conflict free. If not, we request that suppliers immediately begin steps to meet these requirements and inform Intel of their plans to conform.

Intel will communicate updated supplier conflict minerals requirements as the SEC and industry groups define the requirements. As soon as 2011, Intel will include conflict minerals in our existing supplier audit and customer disclosure programs, including this Spec.18-1201, as a mandatory requirement.

#### 5.5.2 SVHC Reportable Lists:

Any REACH Candidate List Substance of Very High Concern (SVHC) above 0.1 wt% in an article requires reporting. When SVHC's are present above the reporting threshold in materials/parts provided to Intel, then Intel may work with suppliers to identify and qualify technically feasible alternatives. Suppliers must monitor the EU REACH authorization for any bans and/or restrictions on 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. See [http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp) for the entire REACH Candidate List.

### 5.6 MATERIAL DECLARATION REQUIREMENTS

All suppliers are required to fill out EPC Spec Conformance form (attachment B) upon request from Intel. One signed form is required for supplier's entire product line per year or major EPC rewrite.

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### 5.6.1 MANUFACTURING REPORTING

The Intel EPC Spec Conformance form (in Attachment B) will be used to report supplier conformance to the manufacturing restrictions. Use of ODS in manufacturing processes by supplier (or their sub-supplier) for raw materials, products or parts supplied to Intel or on Intel's behalf shall be reported on the Intel EPC Spec Conformance form.

### 5.6.2 PRODUCT CONTENT REPORTING

To encourage industry alignment with the Joint Industry Guide: Material Composition Declaration for Electronic Products (JIG-101 Ed 2.0 dated April 28.2009), suppliers can be requested to disclose JIG Substance (see section 3.2 for restriction limits unless a lower reporting threshold is specified below). It is important to note that JIG Criteria 3 (Information) substances are not currently Prohibited or restricted in any application. However, disclosure on their use will enable companies to meet future demands for product content disclosure requirements. In addition, to support industry design standards, such as IEEE 1680 EPEAT standard, some substances require lower reporting thresholds.

6. 6. Attachments

ATTACHMENT A: 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 — Asbestos**

Asbestos	CAS Numbers
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— Azocolorants and azodyes which form certain aromatic amines**

Aromatic Amines	CAS Numbers
Biphenyl-4-ylamine	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
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 azocolorants and azodyes that by reductive cleavage of azo groups may release one of the above 22 aromatic amines.*

**TABLE — Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)**

<b>Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)</b>	<b>CAS Numbers</b>
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(14) [Aliphatic/alicyclic brominated compounds]	-
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 retardant which comes under notation of ISO 1043-4 code number FR(16) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls]	-
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]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(22) [Aliphatic/alicyclic chlorinated and brominated compounds]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(42) [Brominated organic phosphorus compounds]	-
Poly(2,6-dibromo-phenylene oxide)	69882-11-7
Tetra-decabromo-diphenoxy-benzene	58965-66-5
1,2-Bis(2,4,6-tribromo-phenoxy) ethane	37853-59-1
3,5,3',5'-Tetrabromo-bisphenol A (TBBA)	79-94-7
TBBA, unspecified	30496-13-0
TBBA-epichlorhydrin oligomer	40039-93-8
TBBA-TBBA-diglycidyl-ether oligomer	70682-74-5
TBBA carbonate oligomer	28906-13-0
TBBA carbonate oligomer, phenoxy end capped	94334-64-2
TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated	71342-77-3
TBBA-bisphenol A-phosgene polymer	32844-27-2
Brominated epoxy resin end-capped with tribromophenol	139638-58-7
Brominated epoxy resin end-capped with tribromophenol	135229-48-0
TBBA-(2,3-dibromo-propyl-ether)	21850-44-2
TBBA bis-(2-hydroxy-ethyl-ether)	4162-45-2
TBBA-bis-(allyl-ether)	25327-89-3
TBBA-dimethyl-ether	37853-61-5
Tetrabromo-bisphenol S	39635-79-5
TBBS-bis-(2,3-dibromo-propyl-ether)	42757-55-1
2,4-Dibromo-phenol	615-58-7
2,4,6-tribromo-phenol	118-79-6
Pentabromo-phenol	608-71-9
2,4,6-Tribromo-phenyl-allyl-ether	3278-89-5
Tribromo-phenyl-allyl-ether, unspecified	26762-91-4
Bis(methyl)tetrabromo-phthalate	55481-60-2
Bis(2-ethylhexyl)tetrabromo-phthalate	26040-51-7
2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP	20566-35-2
TBPA, glycol-and propylene-oxide esters	75790-69-1
N,N'-Ethylene -bis-(tetrabromo-phthalimide)	32588-76-4
Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	52907-07-0
2,3-Dibromo-2-butene-1,4-diol	3234-02-4
Dibromo-neopentyl-glycol	3296-90-0

<b>Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)</b>	<b>CAS Numbers</b>
Dibromo-propanol	96-13-9
Tribromo-neopentyl-alcohol	36483-57-5
Poly tribromo-styrene	57137-10-7
Tribromo-styrene	61368-34-1
Dibromo-styrene grafted PP	171091-06-8
Poly-dibromo-styrene	31780-26-4
Bromo-/Chloro-paraffins	68955-41-9
Bromo-/Chloro-alpha-olefin	82600-56-4
Vinylbromide	593-60-2
Tris-(2,3-dibromo-propyl)-isocyanurate	52434-90-9
Tris(2,4-Dibromo-phenyl) phosphate	49690-63-3
Tris(tribromo-neopentyl) phosphate	19186-97-1
Chlorinated and brominated phosphate ester	125997-20-8
Pentabromo-toluene	87-83-2
Pentabromo-benzyl bromide	38521-51-6
1,3-Butadiene homopolymer, brominated	68441-46-3
Pentabromo-benzyl-acrylate, monomer	59447-55-1
Pentabromo-benzyl-acrylate, polymer	59447-57-3
Decabromo-diphenyl-ethane	84852-53-9
Tribromo-bisphenyl-maleinimide	59789-51-4
Tetrabromo-cyclo-octane	31454-48-5
1,2-Dibromo-4-(1,2 dibromo-methyl)-cyclo-hexane	3322-93-8
Tetrabromophthalic acid Na salt	25357-79-3
Tetrabromo phthalic-anhydride	632-79-1
Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808)	155613-93-7
Other Brominated Flame Retardants	-

**TABLE — Cadmium/Cadmium Compounds**

<b>Cadmium/Cadmium Compounds</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	-

**TABLE — Chromium VI Compounds**

<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		1333-82-0
Lead (II) chromate	231-846-0	7758-97-6
Lead chromate molybdate sulphate red	235-759-9	12656-85-8
Lead sulfochromate yellow	215-693-7	1344-37-2
Sodium chromate		7775-11-3
Sodium dichromate		10588-01-9
Strontium chromate		7789-06-2
Potassium dichromate		7778-50-9

<b>Chromium VI Compounds</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Potassium chromate		7789-00-6
Zinc chromate		13530-65-9
Other chromium VI compounds		-

**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 – Fluorinated Greenhouse Gases**  
**Perfluorocarbons (PFC), Sulfur hexafluoride (SF6) & Hydrofluorocarbons (HFC)**

<b>Fluorinated Greenhouse Gases</b>	<b>CAS Numbers</b>
Tetrafluoromethane (Carbon tetrafluoride, PFC-14)	75-73-0
Hexafluoroethane (PFC-116)	76-16-4
Octafluoropropane (PFC-218)	<b>76-19-7</b>
Decafluorobutane (PFC-31-10)	<b>355-25-9</b>
Dodecafluoropentane (PFC-41-12)	<b>678-26-2</b>
Tetradecafluorohexane (PFC-51-14)	<b>355-42-0</b>
Octafluorocyclobutane (PFC-c318)	<b>115-25-3</b>
Sulfur Hexafluoride (SF6)	2551-62-4
Trifluoromethane (HFC-23)	75-46-7
Difluoromethane (HFC-32)	<b>75-10-5</b>
Methyl fluoride (HFC-41)	593-53-3
2H,3H-Decafluoropentane (HFC-43-10mee)	<b>138495-42-8</b>
Pentafluoroethane (HFC-125)	<b>354-33-6</b>
1,1,2,2-Tetrafluoroethane (HFC-134)	359-35-3
1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2
1,1-Difluoroethane (HFC-152a)	75-37-6
1,1,2-Trifluoroethane (HFC-143 )	430-66-0
1,1,1-Trifluoroethane (HFC-143a)	420-46-2
2H-Heptafluoropropane (HFC-227ea)	<b>431-89-0</b>
1,1,1,2,2,3-Hexafluoro-propane ( HFC-236cb)	677-56-5
1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	<b>431-63-0</b>
1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	<b>690-39-1</b>
1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679-86-7
1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460-73-1
1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406-58-6

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



**TABLE – Hexabromocyclododecane (HBCDD)**

HBCDD and all Major Diastereoisomers	EC Numbers	CAS Numbers
Hexabromocyclododecane (HBCDD)	247-148-4 and 221-695-9	25637-99-4 and 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 — Lead/lead Compounds**

Lead/lead Compounds	EC Numbers	CAS Numbers
Lead		7439-92-1
Lead (II) sulfate		7446-14-2
Lead (II) carbonate		598-63-0
Lead (II) chromate	231-846-0	7758-97-6
Lead chromate molybdate sulphate red	235-759-9	12656-85-8
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
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
Lead (II) phosphate		7446-27-7
Lead sulfochromate yellow	215-693-7	1344-37-2
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		-

**TABLE — Mercury /Mercury Compounds**

Mercury /Mercury Compounds	CAS Numbers
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	-

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**TABLE — Ozone Depleting Substances**  
**Chlorofluorocarbons (CFC), Halons, Hydrobromofluorocarbons (HBFC),**  
**Hydrochlorofluorocarbons (HCFC) and others**

Ozone Depleting Substances*	CAS Numbers
Trichlorofluoromethane (CFC-11)	75-69-4
Dichlorodifluoromethane (CFC-12)	75-71-8
Chlorotrifluoromethane (CFC-13)	75-72-9
Pentachlorofluoroethane (CFC-111)	354-56-3
Tetrachlorodifluoroethane (CFC-112)	76-12-0
1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112)	76-12-0
1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a)	76-11-9
Trichlorotrifluoroethane (CFC-113)	76-13-1,
1,1,2-Trichloro-1,2,2 trifluoroethane (CFC-113)	76-13-1
1,1,1-Trichloro-2,2,2 trifluoroethane (CFC-113a)	354-58-5
Dichlorotetrafluoroethane (CFC-114)	76-14-2
Monochloropentafluoroethane (CFC-115)	76-15-3
Heptachlorofluoropropane (CFC-211)	422-78-6
	135401-87-5
1,1,1,2,2,3,3-Heptachloro-3-fluoropropane (CFC-211aa)	422-78-6
1,1,1,2,3,3,3-Heptachloro-2-fluoropropane (CFC-211ba)	422-81-1
Hexachlorodifluoropropane (CFC-212)	3182-26-1
Pentachlorotrifluoropropane (CFC-213)	2354-06-5
	134237-31-3
Tetrachlorotetrafluoropropane (CFC-214)	29255-31-0
1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane (CFC-214aa)	2268-46-4
1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane (CFC-214cb)	-
Trichloropentafluoropropane (CFC-215)	1599-41-3
1,2,2-Trichloropentafluoropropane (CFC-215aa)	1599-41-3
1,2,3-Trichloropentafluoropropane (CFC-215ba)	76-17-5
1,1,2-Trichloropentafluoropropane (CFC-215bb)	-
1,1,3-Trichloropentafluoropropane (CFC-215ca)	-
1,1,1-Trichloropentafluoropropane (CFC-215cb)	4259-43-2
Dichlorohexafluoropropane (CFC-216)	661-97-2
Chloroheptafluoropropane (CFC-217)	422-86-6
Bromochloromethane (Halon-1011)	74-97-5
Dibromodifluoromethane (Halon-1202)	75-61-6
Bromochlorodifluoromethane (Halon-1211)	353-59-3
Bromotrifluoromethane (Halon-1301)	75-63-8
Dibromotetrafluoroethane (Halon-2402)	124-73-2
Tetrachloromethane (carbon tetrachloride)	56-23-5
1,1,1-Trichloroethane (methylchloroform)	71-55-6
Bromomethane (methyl bromide)	74-83-9
Bromoethane (ethyl bromide)	74-96-4
1-Bromopropane (n-propyl bromide)	106-94-5
Trifluoroiodomethane (trifluoromethyl iodide)	2314-97-8
Chloromethane (methyl chloride)	74-87-5
Dibromofluoromethane (HBFC-21 B2)	1868-53-7
Bromodifluoromethane (HBFC-22 B1)	1511-62-2
Bromofluoromethane (HBFC-31 B1)	373-52-4
Tetrabromofluoroethane (HBFC-121 B4)	306-80-9
Tribromodifluoroethane (HBFC-122 B3)	-
Dibromotrifluoroethane (HBFC-123 B2)	354-04-1
Bromotetrafluoroethane (HBFC-124 B1)	124-72-1
Tribromofluoroethane (HBFC-131 B3)	-

Ozone Depleting Substances*	CAS Numbers
Dibromodifluoroethane (HBFC-132 B2)	75-82-1
Bromotrifluoroethane (HBFC-133 B1)	421-06-7
Dibromofluoroethane (HBFC-141 B2)	358-97-4
Bromodifluoroethane (HBFC-142 B1)	420-47-3
Bromofluoroethane (HBFC-151 B1)	762-49-2
Hexabromofluoropropane (HBFC-221 B6)	-
Pentabromodifluoropropane (HBFC-222 B5)	-
Tetrabromotrifluoropropane (HBFC-223 B4)	-
Tribromotetrafluoropropane (HBFC-224 B3)	-
Dibromopentafluoropropane (HBFC-225 B2)	431-78-7
Bromohexafluoropropane (HBFC-226 B1)	2252-78-0
Pentabromofluoropropane (HBFC-231 B5)	-
Tetrabromodifluoropropane (HBFC-232 B4)	-
Tribromotrifluoropropane (HBFC-233 B3)	-
Dibromotetrafluoropropane (HBFC-234 B2)	-
Bromopentafluoropropane (HBFC-235 B1)	460-88-8
Tetrabromofluoropropane (HBFC-241 B4)	-
Tribromodifluoropropane (HBFC-242 B3)	70192-80-2
Dibromotrifluoropropane (HBFC-243 B2)	431-21-0
Bromotetrafluoropropane (HBFC-244 B1)	679-84-5
Tribromofluoropropane (HBFC-251 B3)	75372-14-4
Dibromodifluoropropane (HBFC-252 B2)	460-25-3
Bromotrifluoropropane (HBFC-253 B1)	421-46-5
Dibromofluoropropane (HBFC-261 B2)	51584-26-0
Bromodifluoropropane (HBFC-262 B1)	-
Bromofluoropropane (HBFC-271 B1)	1871-72-3
Dichlorofluoromethane (HCFC-21)	75-43-4
Chlorodifluoromethane (HCFC-22)	75-45-6
Chlorofluoromethane (HCFC-31)	593-70-4
Tetrachlorofluoroethane (HCFC-121)	134237-32-4
1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121)	354-14-3
1,1,1,2-Tetrachloro-2-fluoroethane (HCFC-121a)	354-11-0
Trichlorodifluoroethane (HCFC-122)	41834-16-6
1,2,2-Trichloro-1,1-difluoroethane (HCFC-122)	354-21-2
1,1,2-Trichloro-1,2-difluoroethane (HCFC-122a)	354-15-4
1,1,1-Trichloro-2,2-difluoroethane (HCFC-122b)	354-12-1
Dichlorotrifluoroethane(HCFC-123)	34077-87-7
1,1-Dichloro-2,2,2-trifluoroethane (HCFC-123)	306-83-2
1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354-23-4
1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)	90454-18-5 812-04-4
Chlorotetrafluoroethane (HCFC-124)	63938-10-3
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837-89-0
1-chloro-1,1,2,2-tetrafluoroethane (HCFC-124a)	354-25-6
Trichlorofluoroethane (HCFC-131)	27154-33-2; (134237-34-6)
1,1,2-Trichloro-2-fluoroethane (HCFC-131)	359-28-4
1,1,2-Trichloro-1-fluoroethane (HCFC131a)	811-95-0
1,1,1-Trichloro-2-fluoroethane (HCFC-131b)	2366-36-1

Ozone Depleting Substances*	CAS Numbers
Dichlorodifluoroethane (HCFC-132) 1,2-Dichloro-1,2-difluoroethane (HCFC-132) 1,1-Dichloro-2,2-difluoroethane (HCFC-132a) 1,2-Dichloro-1,1-difluoroethane (HCFC-132b) 1,1-Dichloro-1,2-difluoroethane (HCFC-132c)	25915-78-0 431-06-1 471-43-2 1649-08-7 1842-05-3
Chlorotrifluoroethane (HCFC-133)  1-Chloro-1,2,2-trifluoroethane (HCFC-133) 2-Chloro-1,1,1-trifluoroethane (HCFC-133a) 1-Chloro-1,1,2-trifluoroethane (HCFC-133b)	1330-45-6 431-07-2 1330-45-6 75-88-7 421-04-5
Dichlorofluoroethane(HCFC-141)  1,2-Dichloro-1-fluoroethane (HCFC-141) 1,1-Dichloro-2-fluoroethane (HCFC-141a) 1,1-Dichloro-1-fluoroethane (HCFC-141b)	1717-00-6; (25167-88-8) 430-57-9 430-53-5 1717-00-6
Chlorodifluoroethane (HCFC-142) 2-Chloro-1,1-Difluoroethane (HCFC-142) 1-Chloro-1,1-difluoroethane (HCFC-142b) 1-Chloro-1,2-difluoroethane (HCFC-142a)	25497-29-4 338-65-8 75-68-3 338-64-7
Chlorofluoroethane (HCFC-151) 1-Chloro-2-fluoroethane (HCFC-151) 1-Chloro-1-fluoroethane (HCFC-151a)	110587-14-9 762-50-5 1615-75-4
Hexachlorofluoropropane (HCFC-221)  1,1,1,2,2,3-Hexachloro-3-fluoropropane (HCFC-221ab)	134237-35-7 29470-94-8 422-26-4
Pentachlorodifluoropropane (HCFC-222) 1,1,1,3,3-pentachloro-2,2-difluoropropane (HCFC-222ca)) 1,2,2,3,3-pentachloro-1,1-difluoropropane (HCFC-222aa)	134237-36-8 422-49-1 422-30-0
Tetrachlorotrifluoropropane (HCFC-223) 1,1,3,3-Tetrachloro-1,2,2-trifluoropropane (HCFC-223ca) 1,1,1,3-Tetrachloro-2,2,3-trifluoropropane (HCFC-223cb)	134237-37-9 422-52-6 422-50-4
Trichlorotetrafluoropropane (HCFC-224) 1,3,3-Trichloro-1,1,2,2-tetrafluoropropane (HCFC-224ca) 1,1,3-Trichloro-1,2,2,3-tetrafluoropropane (HCFC-224cb) 1,1,1-Trichloro-2,2,3,3-tetrafluoropropane (HCFC-224cc)	134237-38-0 422-54-8 422-53-7 422-51-7
Dichloropentafluoropropane (HCFC-225) 2,2-Dichloro-1,1,1,3,3-pentafluoropropane(HCFC-225aa) 2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba) 1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb) 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) 1,1-Dichloro-1,2,2,3,3-pentafluoropropane(HCFC-225cc) 1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da) 1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea) 1,1-Dichloro-1,2,3,3,3-pentafluoropropane(HCFC-225eb)	127564-92-5 128903-21-9 422-48-0 422-44-6 422-56-0 507-55-1 13474-88-9 431-86-7 136013-79-1 111512-56-2
Chlorohexafluoropropane (HCFC-226) 2-Chloro-1,1,1,3,3,3-hexafluoro-propane (HCFC-226da)	134308-72-8 431-87-8

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Ozone Depleting Substances*	CAS Numbers
Pentachlorofluoropropane (HCFC-231)	134190-48-0
1,1,1,2,3-pentachloro-2-fluoro-propane (HCFC-231bb)	421-94-3
Tetrachlorodifluoropropane (HCFC-232)	134237-39-1
1,1,1,3-Tetrachloro-3,3-difluoropropane (HCFC-232fc)	460-89-9
Trichlorotrifluoropropane (HCFC-233)	134237-40-4
1,1,1-Trichloro-3,3,3-trifluoropropane (HCFC-233fb)	7125-83-9
Dichlorotetrafluoropropane (HCFC-234)	127564-83-4
1,2-Dichloro-1,2,3,3-tetrafluoropropane (HCFC-234db)	425-94-5
Chloropentafluoropropane (HCFC-235)	134237-41-5
1-Chloro-1,1,3,3,3-pentafluoropropane (HCFC-235fa)	460-92-4
Tetrachlorofluoropropane (HCFC-241)	134190-49-1
1,1,2,3-Tetrachloro-1-fluoropropane (HCFC-241db)	666-27-3
Trichlorodifluoropropane (HCFC-242)	134237-42-6
1,3,3,Trichloro-1,1-difluoropropane (HCFC-242fa)	460-63-9
Dichlorotrifluoropropane (HCFC-243)	134237-43-7
1,1-Dichloro-1,2,2-trifluoropropane (HCFC-243cc)	7125-99-7
2,3-Dichloro-1,1,1-trifluoropropane (HCFC-243db)	338-75-0
3,3-Dichloro-1,1,1-trifluoropropane (HCFC-243fa)	460-69-5
Chlorotetrafluoropropane (HCFC-244)	134190-50-4
3-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244ca)	679-85-6
1-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244cc)	421-75-0
Trichlorofluoropropane (HCFC-251)	134190-51-5
1,1,3-Trichloro-1-fluoropropane (HCFC-251fb)	818-99-5
1,1,2-Trichloro-1-fluoropropane (HCFC-251dc)	421-41-0
Dichlorodifluoropropane (HCFC-252)	134190-52-6
1,3-Dicloro-1,1-difluoropropane (HCFC-252fb)	819-00-1
Chlorotrifluoropropane (HCFC-253)	134237-44-8
3-Chloro-1,1,1-trifluoropropane (HCFC-253fb)	460-35-5
Dichlorofluoropropane (HCFC-261)	134237-45-9
1,1-Dichloro-1-fluoropropane (HCFC-261fc)	7799-56-6
1,2-Dichloro-2-fluoro-propane (HCFC-261ba)	420-97-3
Chlorodifluoropropane (HCFC-262)	134190-53-7
1-Chloro-2,2-difluoropropane (HCFC-262ca)	420-99-5
2-Chloro-1,3-difluoropropane (HCFC-262da)	102738-79-4
1-Chloro-1,1-difluoropropane (HCFC-262fc)	421-02-03
Chlorofluoropropane (HCFC-271)	134190-54-8
2-Chloro-2-fluoropropane (HCFC-271ba)	420-44-0
1-Chloro-1-fluoropropane (HCFC-271fb)	430-55-7

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

**TABLE – Perchlorate Compounds**

Perchlorate Compounds	CAS Numbers
Lithium perchlorate	7791-03-9
Other perchlorate compounds	-

**TABLE – PFOS Compounds**

PFOS Compounds	CAS Numbers
Perfluorooctane Sulfonates (PFOS) C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> X, where X = OR, NR or other derivative	-

**TABLE — Selected Phthalates Group 1 (BBP, DBP, DEHP)**

<b>Phthalates</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Butylbenzyl phthalate (BBP)	201-622-7	85-68-7
Dibutyl phthalate (DBP)	201-557-4	84-74-2
Di(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7

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

**TABLE — Selected Phthalates Group 2 (DIDP, DINP, DNOP)**

<b>Phthalates</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
Diisodecyl phthalate (DIDP)	247-977-1	26761-40-0
	271-091-4	68515-49-1
Diisononyl phthalate (DINP)	249-079-5	28553-12-0
	271-090-9	68515-48-0
Di-n-octyl phthalate (DNOP)	204-214-7	117-84-0

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

**TABLE — Polybrominated Biphenyls (PBBs)**

<b>Polybrominated Biphenyls (PBBs)</b>	<b>CAS Numbers</b>
Polybrominated Biphenyls	59536-65-1
Dibromobiphenyl	92-86-4
2-Bromobiphenyl	2052-07-5
3-Bromobiphenyl	2113-57-7
4-Bromobiphenyl	92-66-0
Tribromobiphenyl	59080-34-1
Tetrabromobiphenyl	40088-45-7
Pentabromobiphenyl	56307-79-0
Hexabromobiphenyl	59080-40-9
Hexabromo-1,1-biphenyl	36355-01-8
Firemaster FF-1	67774-32-7
Heptabromobiphenyl	35194-78-6
Octabromobiphenyl	61288-13-9
Nonabromobiphenyl	27753-52-2
Decabromobiphenyl	13654-09-6



**TABLE — Polybrominated Diphenyl Ethers (PBDEs)**

<b>Polybrominated Diphenyl Ethers (PBDEs)</b>	<b>CAS Numbers</b>
Bromodiphenyl ether	101-55-3
Dibromodiphenyl ether	2050-47-7
Tribromodiphenyl ether	49690-94-0
Tetrabromodiphenyl ether	40088-47-9
Pentabromodiphenyl ether (note: Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.	32534-81-9 (CAS number used for commercial grades of PeBDPO)
Hexabromodiphenyl ether	36483-60-0
Heptabromodiphenyl ether	68928-80-3
Octabromodiphenyl ether	32536-52-0
Nonabromodiphenyl ether	63936-56-1
Decabromodiphenyl ether	1163-19-5

**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 Terphenyls (PCTs)**

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

**TABLE — Polychlorinated Naphthalenes**

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

**TABLE — (PVC) Polyvinyl Chloride**

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

**TABLE — Radioactive Substances (Radioactive Isotope)**

<b>Radioactive Substances</b>	<b>CAS Numbers</b>
Uranium-238	7440-61-1
Radon	10043-92-2
Americium-241	14596-10-2
Thorium-232	7440-29-1
Cesium-137	10045-97-3
Strontium-90	10098-97-2
Other radioactive substances	-

**TABLE — Refractory Ceramic Fibers, Aluminosilicate**

<b>Refractory Ceramic Fibers, Aluminiumsilicate</b>	<b>Index Numbers</b>
<p>are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 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 fulfill the two following conditions:</p> <p>a) <math>Al_2O_3</math> and <math>SiO_2</math> are present within the following concentration ranges:</p> <ul style="list-style-type: none"> <li>• <math>Al_2O_3</math>: 43.5 – 47 % w/w, and <math>SiO_2</math>: 49.5 – 53.5 % w/w, or</li> <li>• <math>Al_2O_3</math>: 45.5 – 50.5 % w/w, and <math>SiO_2</math>: 48.5 – 54 % w/w,</li> </ul> <p>b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (<math>\mu m</math>)</p>	650-017-00-8

**TABLE — Refractory Ceramic Fibers, Zirconia Aluminosilicate**

<b>Refractory Ceramic Fibers, Aluminiumsilicate</b>	<b>Index Numbers</b>
<p>are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 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 fulfill the two following conditions:</p> <p>a) <math>Al_2O_3</math>, <math>SiO_2</math> and <math>ZrO_2</math> are present within the following concentration ranges:</p> <ul style="list-style-type: none"> <li>• <math>Al_2O_3</math>: 35 – 36 % w/w, and</li> <li>• <math>SiO_2</math>: 47.5 – 50 % w/w, and</li> <li>• <math>ZrO_2</math>: 15 - 17 % w/w,</li> </ul> <p>b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (<math>\mu m</math>)</p>	650-017-00-8

**TABLE — Short Chain Chlorinated Paraffins (SCCPs)**

<b>Short Chain Chlorinated Paraffins (C10-C13)</b>	<b>EC Numbers</b>	<b>CAS Numbers</b>
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
Chlorinated polyethylene		64754-90-1
Other Short Chain Chlorinated Paraffins		-



**TABLE — Tri-substituted Organnostannic Compounds**

<b>Tri-substituted Organostannic Compounds</b>	<b>CAS Numbers</b>
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
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

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**Statement of Conformance to ENVIRONMENTAL PRODUCT CONTENT (EPC) Specification 18-1201 for Intel Suppliers & Outsourced Manufacturers**

Completion of this form constitutes acknowledgment 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), 2002/95/EC.

Supplier Name

Contact Name, Title

Contact Phone

Contact email

**Supplier Declaration**

- I have read and understand the Environmental Product Content Specification for Intel Suppliers & Outsourced Manufacturers
- Yes I acknowledge that all raw materials, parts or products supplied to Intel meet the Intel Environmental Product Content Specification for Suppliers and Outsourced Manufacturers.

OR

No Below is the list of substance(s) or condition(s) which **do not comply** with the Intel Environmental Product Content Specification. Please notify Intel Commodity Management if any exceptions are listed below.

EPC Spec Section #	Substance/Condition	Products Affected
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

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- 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 [http://ozone.unep.org/Ratification\\_status/evolution\\_of\\_mp.shtml](http://ozone.unep.org/Ratification_status/evolution_of_mp.shtml))

Yes  Year manufacturing site became ODS free  If yes, please skip Addendum B questions 1-9.

OR

No  List the type and quantity of ODS used to manufacture Intel products. If No, Addendum B questions 1-9 must be answered.

ODS	Quantity used	Products Affected
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

[Add Row](#)

**Addendum B**

1 Does Supplier have a goal and plan to phase out Ozone Depleting Substances (ODS)?	Plan?	Goal:
	<input type="checkbox"/>	<input type="text"/>
2 Is Supplier meeting the plan?	<input type="checkbox"/>	
3 Are any of Intel's specifications impacting the Supplier's efforts?	<input type="checkbox"/>	
4 Is Supplier providing Intel with products which contain or use ODSs in the manufacturing process?	<input type="checkbox"/>	
5 Is Intel required to pay any ODS import taxes on Supplier's supplies or parts?	<input type="checkbox"/>	
6 Does Supplier clean product(s) shipped to Intel with CFCs, methyl chloroform (TEA), or carbon tetrachloride?	<input type="checkbox"/>	If yes, please list the cleaning agents: <input type="text"/>
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 component quality and reliability.	<input type="text"/>	
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.	<input type="text"/>	
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.	<input type="text"/>	

*My typed name below is acknowledgment that I am certified and authorized by the above-named Supplier to provide the information in this form. By clicking the "submit" button, 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.*

**To save a copy of this page onto your computer, click File -> Save As or File -> Save Page As and follow the on screen instructions.**

For questions, email at: [Environmentalcompliance@intel.com](mailto:Environmentalcompliance@intel.com)

powered by GEMS (link is to a non-Intel managed site)

**Attachment C – Packaging Environmental Regulatory Compliance Form**

**Section I:**

**Intel's Workmanship Standards Quality Standards and Procedures For Intel packaging materials, Packaged assemblies, and packaged products , Item 3 The Packaging Essential Requirements are:**

Packaging materials (including printing inks on packaging) must not contain heavy metals (Lead, Cadmium, Mercury, Hexavalent Chromium) where the sum of the concentration levels exceed 100 ppm (parts per million) by weight. The use of Noxious and other Hazardous substances must be minimized. If present in packaging, these substances must be identified when concentration levels exceed 1000 ppm. (Methodology is explained in CEN/TR 13695-2:2004). Packaging must be recoverable by recycling, energy recovery or biodegradation. (Refer to EU Directive on Packaging and Packaging Waste [94/62/EC])

[\(Click here to view EU Directive on Packaging and Packaging Waste \[94/62/EC\]\)](#)

All packaging parts or complete packaging items supplied to Intel meet Intel's Workmanship Standards Quality Standards and Procedures For Intel packaging materials, Packaged assemblies, and packaged products, Item 3 for Suppliers and Outsourced Manufacturers. (Answer: Yes/No)

If "No", list packaging part numbers which violate the Packaging Essential Requirements:

Substance or Requirement	Packaging Part number	Phase-Out Date

**Section II:**

**IEEE Standard for Environmental Assessment of Personal Computer Products, Including Laptop Personal Computers, Desktop Personal Computers, and Personal Computer Monitors, Section 4.8. The criteria are:**

[\(Click here to view IEEE Standard for Environmental Assessment of Personal Computer Products, Including Laptop Personal Computers, Desktop Personal Computers, and Personal Computer Monitors, IEEE Standard 1680.\)](#)

**Separable packaging materials:** Are the packaging materials supplied for Intel product able to be segregated into like materials without the use of tools? (Answer: Yes/No)

**90% of Packaging is recyclable and plastics are labeled:** Are plastic packaging materials supplied for Intel product marked or identifiable by material type (SPI, DIN, or country specific) and does 90% of the packaging (by weight) supplied for Intel consist of readily recyclable materials that are commonly accepted in most recycling programs (and for which, on a regional basis, a recycling infrastructure is present) or can be composted or disposed of in municipal sewage programs? This includes: cardboard, boxboard, newsprint, and cornstarch. Pallets are excluded from the weight calculation. (Answer: Yes/No)

Please continue to page 2

Page 1 of 2

**Declaration of Recycled Content:** Do the packaging materials supplied for Intel product contain recycled content? (Answer: Yes/No)

If yes, please list each packaging material with the approximate range of recycled content that is in that material below:

Material:	Range of Recycled Content:			Specify: Pre or Post-Consumer
	Between		% and %	
	Between		% and %	
	Between		% and %	
	Between		% and %	

**Minimum post-consumer content guidelines:** Do the packaging materials supplied for Intel product meet or exceed the minimum post-consumer content for respective packaging in the U.S. EPA CPG over the course of a year using a weighted average? (Answer: Yes/No)

**Take-back program for packaging:** Does your company offer a take-back program for free where packaging material can be collected/returned to you for reuse or recycling? (Answer: Yes/No)

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Compliance has been verified via internal design controls, supplier declarations, and/or analytical test data. Intel considers this declaration a modification to any and all purchase agreement(s) and contracts between the above-named supplier and Intel. All supplier-provided warranties and indemnities otherwise applicable to products listed in this declaration supplied under such agreement(s) shall also apply to this declaration of conformance.

The person undersigned below certifies that: (1) they are duly-authorized to sign on behalf of the above-named supplier, (2) all information provided in this declaration is true and correct to the best of their knowledge, and (3) they possess and will maintain the complete technical documentation relating to this declaration of compliance and are willing and able to furnish this documentation to Intel upon request within 14 days of Intel requesting it.

Handwritten Signature:

Printed Name:

Title:

Date:

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Attachment D: JIG 101: Supplier Declaration Form

Example of Intel's On-Line version of JIG-101


**Product Part ID:**


**Product Part**

**Description:**

RoHS Substance Group (JIG-101 Ed 3.1 )	Description of Use (Reportable Application)	Homogeneous Threshold	Above the threshold? Y/N	Substance Mass% of homogeneous layer	Homogeneous material name	Homogeneous Material Mass% of product part	Exemption	Comments
Cadmium/Cadmium Compounds	All, except batteries	0.01 % by weight (100 ppm) of homogeneous materials						
Chromium VI Compounds	All	0.1 % by weight (1,000 ppm) of homogeneous materials						
Lead/Lead Compounds	All, except as noted in the JIG Substance Group section	0.1 % by weight (1000 ppm) of homogeneous materials						
Mercury/Mercury Compounds	All, except batteries	Intentionally added or 0.1 % (1000 ppm) of homogeneous material						
Polybrominated Biphenyls (PBBs)	All	0.1 % by weight (1000 ppm) in homogeneous material						
Polybrominated Diphenylethers (PBDEs)	All	0.1 % by weight (1000 ppm) in homogeneous material						

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JIG Substance Group (JIG-101 Ed 3.1 )	Description of Use (Reportable Application)	Article Threshold	Above the threshold? Y/N	Substance Mass% of product part	Comments
Asbestos	All	Intentionally added			
Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)	Plastic parts >25 grams other than in printed wiring board assemblies	0.1 % by weight (1000 ppm) of the plastic material			
..... 					
Tri-substituted organostannic compounds	All	0.1% by weight (1000 ppm) of tin in a material			

REACH Substance List (JIG-101 Ed 3.1)	Reportable Application	Threshold	Above threshold?	Substance Mass% of product part	Authority	Number	Comments
Diarsenic pentaoxide	All	0.1 % by weight (1,000 ppm) of the product			CAS	1303-28-2	
Diarsenic trioxide	All	0.1 % by weight (1,000 ppm) of the product			CAS	1327-53-3	
..... 							
Bis (2-ethylhexyl)phthalate (DEHP)	All	0.1 % by weight (1000 ppm) of the product			CAS	117-81-7	
Dibutyl phthalate (DBP)	All	0.1 % by weight (1000 ppm) of the product			CAS	84-74-2	

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**Attachment E - EU RoHS Exemptions (Examples)**

RoHS Compliance: Intel defines RoHS compliant as follows: "Lead and other materials Prohibited in RoHS Directive are either (1) below all applicable substance thresholds as proposed by the EU or (2) an approved exemption applies."

Approved exemptions listed in the Commission Decision dated September 24, 2010 from the Official Journal of the European Union and are allowed by Intel under this specification. Refer to the latest list of RoHS exemptions when making declarations: Parts and/or materials cannot be shipped after the exemption declaration dates below have expired unless an earlier date is defined by Intel.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0028:0034:EN:PDF>

Exemption Number	Exemption	Scope and dates of applicability
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):	
1(a)	For general lighting purposes < 30 W: 5 mg	Expires on 31 December 2011; 3,5 mg may be used per burner after 31 December 2011 until 31 December 2012; 2,5 mg shall be used per burner after 31 December 2012
1(b)	For general lighting purposes ≥ 30 W and < 50 W: 5 mg	Expires on 31 December 2011; 3,5 mg may be used per burner after 31 December 2011
1(c)	For general lighting purposes ≥ 50 W and ≤ 150 W: 5 mg	
1(d)	For general lighting purposes ≥ 150 W: 15 mg	
1(e)	For general lighting purposes with circular or square structural shape and tube diameter < 17 mm	No limitation of use until 31 December 2011; 7 mg may be used per burner after 31 December 2011
1(f)	For special purposes: 5 mg	
2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):	
2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter > 9 mm (e.g. T2): 5 mg	Expires on 31 December 2011; 4 mg may be used per lamp after 31 December 2011
2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≥ 17 mm (e.g. T5): 5 mg	Expires on 31 December 2011; 3 mg may be used per lamp after 31 December 2011
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 17 mm and ≤ 28 mm (e.g. T8): 5 mg	Expires on 31 December 2011; 3,5 mg may be used per lamp after 31 December 2011
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 5 mg	Expires on 31 December 2012; 3,5 mg may be used per lamp after 31 December 2012
2(a)(5)	Tri-band phosphor with long lifetime (≥ 25 000 h): 8 mg	Expires on 31 December 2011; 5 mg may be used per lamp after 31 December 2011
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):	
2(b)(1)	Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12): 10 mg	Expires on 13 April 2012
2(b)(2)	Non-linear halophosphate lamps (all diameters): 15 mg	Expires on 13 April 2016



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Exemption Number	Exemption	Scope and dates of applicability
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011
2(b)(4)	Lamps for other general lighting and special purposes (e.g. induction lamps)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):	
3(a)	Short length ( $\geq 500$ mm)	No limitation of use until 31 December 2011; 3,5 mg may be used per lamp after 31 December 2011
3(b)	Medium length (> 500 mm and < 1500 mm)	No limitation of use until 31 December 2011; 5 mg may be used per lamp after 31 December 2011
3(c)	Long length (> 1500 mm)	No limitation of use until 31 December 2011; 13 mg may be used per lamp after 31 December 2011
4(a)	Mercury in other low pressure discharge lamps (per lamp)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011
4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$ :	
4(b)-I	$P < 155$ W	No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011
4(b)-II	$155$ W < $P < 405$ W	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011
4(b)-III	$P > 405$ W	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	
4(c)-I	$P < 155$ W	No limitation of use until 31 December 2011; 25 mg may be used per burner after 31 December 2011
4(c)-II	$155$ W < $P < 405$ W	No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011
4(c)-III	$P > 405$ W	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	Expires on 13 April 2015
4(e)	Mercury in metal halide lamps (MH)	
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	
5(a)	Lead in glass of cathode ray tubes	

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Exemption Number	Exemption	Scope and dates of applicability
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	
6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight	
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	
6(c)	Copper alloy containing up to 4 % lead by weight	
7(a)	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	Expires on 1 January 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January 2012
8(b)	Cadmium and its compounds in electrical contacts	
9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010
11(b)	Lead used in other than C-press compliant pin connector systems	Expires on 1 January 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January 2013
12	Lead as a coating material for the thermal conduction module C-ringH	May be used in spare parts for EEE placed on the market before 24 September 2010
13(a)	Lead in white glasses used for optical applications	
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Expires on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011

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Exemption Number	Exemption	Scope and dates of applicability
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	
16	Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September 2013
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	
18(a)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) 2 MgSi 2 O 7 :Pb)	Expires on 1 January 2011
18(b)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi 2 O 5 :Pb)	
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Expires on 1 June 2011
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June 2011
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	May be used in spare parts for EEE placed on the market before 24 September 2010
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	
26	Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June 2011
27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September 2010
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC ( 1 )	
30	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	
31	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	
34	Lead in cermet-based trimmer potentiometer elements	
36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expired on 1 July 2010
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	
39	Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm 2 of light-emitting area)	Expires on 1 July 2014

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Exemption Number	Exemption	Scope and dates of applicability
	for use in solid state illumination or display systems	

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Revision History:

Rev	Date	Description	Initiator
1	7/12/03	Spec Written	Joni Hansen & Todd Brady
2	8/25/04	Additional restricted materials added; general edits	Todd Brady
3	10/4/04	Additional RoHS restrictions and exemptions added	Bobby Britton
4	2/11/05	Added Supplier DoC and RoHS definitions	Bobby Britton
5	2/13/06	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	Linda Young
6	2/21/07	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.	Linda Young
7	7/21/08	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.	Rick East
8	9/25/08	Updated tear sheet to include required IRS Ozone Depleting Substances form. (example under addendum B)	Jared Connors
9	8/11/09	Modified to meet new Intel spec format. Updated tables to align with new Jig Ed 2.0 regulated, assessment and information only. Added new packaging requirements. Updated EPC letter. Captured all RoHS items in Attachment E.	Kim Phillippe
10	11/12/2010	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.	Kim Phillippe

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