

Restricted and declarable substances list

BOMcheck provides an easy-to-use declaration tool including step-by-step expert advice which guides the supplier to generate and maintain their substance declarations on the database. The declaration tool covers the following list of regulatory restricted and declarable substances which are relevant to hardware and electrical/electronic equipment (EEE). This list builds on the Joint Industry Guide (JIG) published 31 March 2010 and also includes regulatory substance restrictions and declaration requirements which came into effect after March 2010. It also includes substances which are restricted by Philips and other leading OEMs to comply with product safety standards in Germany and reduce severe environmental or health and safety impacts.

1. Product restrictions

Restriction of Certain Hazardous Substances (RoHS) Directive 2002/95/EC

The RoHS substance restrictions apply to every individual homogenous material in the part.

Substance	Maximum concentration of the substance in any individual homogenous material in the part
Cadmium/Cadmium compounds	0.01% in the material
Hexavalent Chromium	0.1% in the material
Lead/Lead compounds	0.1% in the material
Mercury/Mercury compounds	0.1% in the material
PBBs	0.1% in the material
PBDEs	0.1% in the material

Registration Evaluation Authorisation and Restriction of Chemicals (REACH) Regulation 1907/2006 (as amended)

Candidate List Substances found in hardware articles

REACH Article 33 requires all suppliers to inform their customers if the article they supply contains any of the substances in the Candidate List in concentrations > 0.1% w/w of the article. An article is a product which has a special shape, surface or design which determines its function to a greater degree than its chemical composition. The article that the supplier supplies can be very simple (e.g. a screw, resistor, housing) or very complicated (e.g. a computer). In all cases, the concentration threshold of 0.1% applies to the weight of the supplied article. BOMcheck follows the approach in the Joint Industry Guide (JIG) and only includes substances which can be found in hardware articles.

Substances which can be found in hardware articles	Maximum concentration of the substance in the supplied article
Bis (2-ethyl(hexyl)phthalate)	0.1% in the supplied article
Dibutyl phthalate	0.1% in the supplied article
Benzyl butyl phthalate	0.1% in the supplied article
Hexabromocyclododecane	0.1% in the supplied article
Alkanes, C10-13, chloro	0.1% in the supplied article
Bis(tributyltin)oxide	0.1% in the supplied article
Cobalt dichloride	0.1% in the supplied article

Diarsenic pentaoxide	0.1% in the supplied article
Diarsenic trioxide	0.1% in the supplied article
Bis(2-methylpropyl)benzene-1,2-dicarboxylate	0.1% in the supplied article
Tris (2-chloroethyl) phosphate	0.1% in the supplied article
Aluminosilicate Refractory Ceramic Fibres	0.1% in the supplied article
Zirconia Aluminosilicate Refractory Ceramic Fibres	0.1% in the supplied article
Lead (2+) chromate	0.1% in the supplied article
Lead chromate molybdate sulfate red	0.1% in the supplied article
Lead sulfochromate yellow	0.1% in the supplied article
Boric Acid	0.1% in the supplied article
Disodium tetraborate, anhydrous	0.1% in the supplied article
Tetraboron disodium heptaoxide (hydrate)	0.1% in the supplied article

Substance Restrictions applicable to hardware articles

REACH Article 67 contains a number of substance restrictions which apply to all suppliers in the supply chain when they supply an article to a customer. BOMcheck follows the approach in the Joint Industry Guide (JIG) and only includes substances which can be found in hardware articles.

Substances which can be found in hardware articles	Maximum concentration of the substance in the supplied article
Asbestos	No intentionally added content
Ozone depleting substances	No intentionally added content
PFOS	0.1% w/w
Phthalates	0.1% w/w of plasticised material when used in toys and childcare articles
Polychlorinated biphenyls	No content permitted
Polychlorinated terphenyls	No content permitted
Monomethyl dibromodiphenyl methane	No content permitted
Monomethyl dichlorodiphenyl methane	No content permitted
Monomethyl tetrachlorodiphenyl methane	No content permitted
Azo colourants containing certain amines	Not permitted in textile and leather articles which may come into direct and prolonged contact with skin
Nickel and nickel alloys	Must not be used in applications with direct and prolonged skin contact and where the rate of nickel release is > 0.5 micro gms per cm ² per week
Tri (2,3-dibromo-propyl) phosphate	Not permitted in textile articles which may come into contact with skin

Tris (aziridinyl) phosphin oxide	Not permitted in textile articles which may come into contact with skin
Dimethyl Fumarate	No content permitted
Organostannic compounds	No intentionally added content in any substance or preparation
Pentachlorophenol	0.1% w/w in any substance or preparation
Tar oils and creosotes	No content permitted in wood
Benzene	Concentration must be < 0.0005% w/w in toys and < 0.1% w/w in any substance or preparation
Trichlorobenzene	0.1% w/w
Nonylphenol and nonylphenol ethoxylates	0.1% w/w

Substances which are restricted or declarable by other legislation

BOMcheck follows the approach in the Joint Industry Guide (JIG) and only includes substances which can be found in hardware articles.

Substances which can be found in hardware articles	Maximum concentration of the substance in the supplied article
Formaldehyde	No intentionally added content in composite wood products or components (plywood, particle board and MDF) and textiles
Lead/lead compounds in cables/cords with thermoset or thermoplastic coatings	0.03% w/w in the surface coating of the cable/cord
Lead/lead compounds in accessible parts in toys and childcare articles	0.03% w/w in accessible parts in toys and childcare articles
Lead/lead compounds in paint in toys and childcare articles	0.009% w/w in paint in toys and childcare articles
Sulfur Hexafluoride	Detailed restrictions in Austria
Polychlorinated and polybrominated dioxins and furans	No content permitted
Radioactive substances	No intentionally added content
Polychloronaphthalenes	No intentionally added content
Alkanes, C10-13, chloro	No intentionally added content
Bisphenol A	No content permitted in food containers marketed to children under three years old
Bisphenol A	Declared if manufactured from raw materials using BPA and if used in medical devices and part comes into contact with patient or patient fluids

Batteries Directive 2006/66/EC substance restrictions

The following restrictions apply to all batteries

Substances	Maximum concentration in the battery
Cadmium	0.002% in portable batteries except for batteries used in emergency and alarm systems (including emergency lighting), medical equipment and cordless power tools
Mercury	0.0005% except button cells where concentration must be < 2%

Industry substance restrictions

These substances are restricted by Philips and other leading OEMs to comply with product safety standards in Germany and to reduce severe environmental or health and safety impacts. Suppliers can check the information pages in the BOMcheck tool to find out which OEMs require their suppliers to comply with particular industry substance restrictions.

Substances which can be found in hardware articles	Maximum concentration of the substance in the supplied article
Beryllium and Beryllium Oxide	0.1% if feasible technical alternatives exist
Phenol and phenolic compounds emissions in toys and childcare articles	50 mg/liter emission from toys and childcare articles
Brominated flame retardants (other than PBBs or PBDEs)	Declare if > 0.1% w/w in any plastic part which weighs > 25gms
Brominated flame retardants (other than PBBs or PBDEs)	Declare if > 0.09% total bromine concentration by weight in printed wiring board laminate
PVC	Declare if > 0.1% w/w
Dibutyltin (DBT)	Declare if > 0.1% w/w
Diocetyl tin (DOT)	Declare if > 0.1% w/w
Antimony compounds	0.1% w/w in glass in lamps
Arsenic compounds	0.1% w/w in glass in lamps
Polycyclic Aromatic Hydrocarbons (PAH)	0.005% in potting material in electronic or magnetic ballast for lamps
Benzoapyrene	0.002% if short duration skin contact 0.0001% if long duration skin contact
Sum of all PAHs	0.02% if short duration skin contact, 0.001% if long duration skin contact
Azo Colourants	30 ppm if part comes into contact with skin

2. Packaging restrictions

Packaging Directive 94/62/EC

Substances	Maximum concentration in the supplied packaging
Sum of all heavy metals (Cd, Hg, Cr(VI) and Pb)	0.01% in the supplied packaging

Registration Evaluation Authorisation and Restriction of Chemicals (REACH) Regulation 1907/2006 (as amended)

Candidate List Substances found in packaging

REACH Article 33 requires all suppliers to inform their customers if the article they supply contains any of the substances in the Candidate List in concentrations > 0.1% w/w of the article. An article is a product which has a special shape, surface or design which determines its function to a greater degree than its chemical composition. The REACH regulation defines packaging as an article. BOMcheck follows the approach in the Joint Industry Guide (JIG) and only includes substances which can be found in packaging articles.

Substances which can be found in packaging articles	Maximum concentration of the substance in the supplied packaging
Bis (2-ethyl(hexyl)phthalate)	0.1% in the supplied packaging
Dibutyl phthalate	0.1% in the supplied packaging
Benzyl butyl phthalate	0.1% in the supplied packaging
Hexabromocyclododecane	0.1% in the supplied packaging
Bis(tributyltin)oxide	0.1% in the supplied packaging
Cobalt dichloride	0.1% in the supplied packaging
Bis(2-methylpropyl)benzene-1,2-dicarboxylate	0.1% in the supplied packaging
Tris (2-chloroethyl) phosphate	0.1% in the supplied packaging
Boric Acid	0.1% in the supplied packaging
Disodium tetraborate, anhydrous	0.1% in the supplied packaging
Tetraboron disodium heptaoxide (hydrate)	0.1% in the supplied packaging

Substance Restrictions applicable to packaging articles

REACH Article 67 contains a number of substance restrictions which apply to all suppliers in the supply chain when they supply an article to a customer. The REACH regulation defines packaging as an article. BOMcheck follows the approach in the Joint Industry Guide (JIG) and only includes substances which can be found in packaging articles.

Substances which can be found in packaging articles	Maximum concentration of the substance in the supplied packaging
Arsenic compounds	No content permitted
Formaldehyde	0.1% in the supplied packaging

Dimethyl Fumarate	No intentionally added content in any substance or preparation
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Industry substance restrictions

These substances are restricted by Philips and other leading OEMs to comply with retailer restrictions on PVC in packaging and use of EPS in consumer products. Suppliers can check the information pages in the BOMcheck tool to find out which OEMs require their suppliers to comply with particular industry substance restrictions.

Substances which can be found in packaging articles	Maximum concentration of the substance in the supplied packaging
PVC	0.1% in supplied packaging
EPS material in any consumer product	Not permitted