



# **Weidmüller Environmental Compliance Guideline for Suppliers**

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## 1 Objective

The purpose of this guideline is to ensure compliance with legislations regarding to prohibited, declarable and managed Substances in the electrical engineering and electronics industry. This guideline clarifies the requirements regarding prohibited and declarable substances in products, semi-finished goods and raw material (see list of categories Table 1) delivered to Weidmüller.

Although this guideline has been developed in accordance with principal laws and regulations, it does not necessarily refer to all relevant regulations. All products shall fully comply with the treaties, laws, ordinances and industry guidelines effective at the time of sales and in the region of sales in addition to this guideline.

## 2 Categories

To clarify which requirements are applicable to the related product, this guideline defines different categories with a set of minimum and extended requirements. Further requirements could be defined in technical delivery conditions or other contractual agreements.

Table 1: List of categories

Cat.	Definition	Examples
A	raw materials	resins, compounds
B	semi finished goods	flat wires, round wires, metal bands
C	products – mechanical for electrical application (MFEA)	screws, single connections, clamping yokes, current bars, housings
D	mechanical tools	pliers, cutting tools, stripping tools, crimping tools, screwdriver, pressing tools, socket wrench, cabinet keys
E	products – electrical/electronic (EE)	connectors, terminal blocks, relays, power supplies, surge protections, interfaces, bus components, Ethernet components
F	equipment	printer, plotter, electrical screwdriver, voltage tester, other electrical tool
G	sub-materials*	solder, grease, adhesives, oil, tape, cushioning, binding materials, buffer materials, inks
H	packaging	cartons, foils, trays, fillers, inlays
I	batteries	batteries

**\*sub-materials which stay on products, should fulfill the requirements of category A**

### 3 Prohibited and declarable substances

Substances are divided in prohibited and declarable substances. The prohibition depends on the application and the type of category. Weidmüller prefer the reference on the international standard for material declaration in the electronic and electrical industry IEC62474. A list prohibited substance which are typical for Weidmüller applications can be found in Annex A. The requirements for declarable substances are the relevant information to Article 33 of REACH Regulation (EC) No 1907/2006. Declarations were based on candidate list (SVHC)\* in the current version should be transferred immediately to [green-compliance@weidmüller.com](mailto:green-compliance@weidmüller.com) if any SVHC is present in the delivered good.

\*current candidate list of SVHC at ECHA >>><https://echa.europa.eu/candidate-list-table>

Table 2: List of mandatory legislations

Legislation	Mandatory for which categories
RoHS (2011/65/EU) and (EU) 2015/863	Raw materials (A), semi-finished goods (B), products MFEA (C), products EE (E), equipment (F)
REACH Regulation (EC) No 1907/2006	ALL (A-I)
POPs Regulation (EG) No 2019/1021	ALL (A-I)
EU Packaging Directive (94/62/EC)	packaging (H)
EU Battery Directive (2006/66/EG)	batteries (I)
EU ODS Directive (EG) No 1005/2009	Sub-materials (G)

### 4 Applicable thresholds and exemptions

The respective application-specific threshold applies in accordance with the relevant legislation. If an exemption is applied, this is to be named. In case of a provided material declaration, further information can be dispensed with after consultation.

### 5 Form of declaration

Weidmüller prefers material declarations in form of standardized supplier declarations, material declarations based on a list of substances or full material declaration (FMD).

For further Information and a list of some examples see ZVEI guide “Material declaration within the supply chain”. >>><https://www.zvei.org/en/>

Product related declarations are to be made available before the first delivery to the following email address: [green-compliance@weimueller.com](mailto:green-compliance@weimueller.com)

## 6 Applicable exemptions for RoHS (2011/65/EU)

As an aid to declaring exemptions under RoHS, the following is a list of common exemptions to our products. It is merely an excerpt from the exemptions at the time of the creation of the guideline. The applicable version of the RoHS is to be observed.

>>> <http://eur-lex.europa.eu/homepage.html>

Table 3: List of common exemption under RoHS

No	Exemption
6a	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight
6aI	Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight and in batch hot dip galvanised steel components containing up to 0.2% lead by weight
6b	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight
6bI	Lead as an alloying element in aluminium containing up to 0.4% lead by weight, provided it stems from lead-bearing aluminium scrap recycling
6bII	Lead as an alloying element in aluminium for machining purposes with a lead content of up to 0.4% lead by weight
6c	Copper alloy containing up to 4 % lead by weight
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7cI	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
7cII	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher
15	Blei in Loten zum Herstellen einer stabilen elektrischen Verbindung zwischen dem Halbleiterchip und dem Schaltungsträger in integrierten Flip-Chip-Baugruppen
15a	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: a semiconductor technology node of 90 nm or larger; a single die of 300 mm <sup>2</sup> or larger in any semiconductor technology node; stacked die packages with die of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger

**Important: There are no applicable exemptions for mercury, CrVI, PBB and PBDE.**

## 7 Prevention of contamination

The supplier has to take all actions to prevent his production, warehouse and stock from contamination between none conform and conform parts/materials. If there is no parallel production of none conform and conform parts/materials, a risk analysis regarding general contamination can be drawn out.

## Annex A:

### List of prohibited substances at Weidmüller based on IEC62474

Specific Substance or group	Typical Applications	Basis Description / Legislation
Asbestos*	Insulator, filler, pigment, paint, talc	ANNEX XVII of REACH Regulation (EC) No 1907/2006. United States: Toxic Substances Control Act (TSCA); Switzerland Ordinance on Reduction of Risks from Chemical Products (ORRChim)
Cadmium/Cadmium compounds*	Pigments, anti-corrosion surface treatments, optical glass, heat stabilizers, plating, fluorescent materials, electrodes, low melting solders, electric contacts, zinc plating, photoelectric applications, phosphor coatings, bearing alloys	2011/65/EU (EU/RoHS Directive and its amendments); ANNEX XVII of REACH Regulation (EC) No 1907/2006; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; . Revised law for Promotion of Effective Utilization of Resources(J-Moss)
Chromium (VI) Compounds*	Pigment, paint, ink, catalyst, plating, anticorrosion surface treatment, dye, paint dryer, surface treatment	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(JMoss); Candidate list for European REACH Regulation No. 1907/2006/EC
Dibutyltin (DBT) compounds*	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010
Lead/Lead Compounds*	Rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free-machining alloy, free-cutting steels, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, resin stabilizer, plating, metal alloy, resin additives	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(J-Moss); ANNEX XVII of REACH Regulation (EC) No 1907/2006
Mercury/Mercury Compounds*	Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	2011/65/EU (EU/RoHS Directive and its amendments); ANNEX XVII of REACH Regulation (EC) No 1907/2006; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(JMoss); Canadian Products Containing Mercury Regulations (SOR/2014-254)

Specific Substance or group	Typical Applications	Basis Description / Legislation
Bis (2-ethylhexyl)phthalate (DEHP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC
Dibutyl phthalate (DBP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC
Benzyl butyl phthalate (BBP)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC
Diisobutyl phthalate	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	2011/65/EU (EU/RoHS Directive and its amendments); Candidate list for European REACH Regulation No. 1907/2006/EC
Polybrominated Biphenyls (PBBs)*	Flame retardant	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control;
Polybrominated Diphenylethers (PBDEs)*	Flame retardant	2011/65/EU (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; Japan Law concerning the evaluation of chemical substances
Polychlorinated Biphenyls (PCBs) and specific substitutes*	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, fire retardants, dielectric sealants	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law - PCBs only), ANNEX XVII of REACH Regulation (EC) No 1907/2006; US Toxic Substance Control Act (TSCA)
Polychlorinated Terphenyls (PCTs)*	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, fire retardants, coatings for electrical wire and cable, dielectric sealants	ANNEX XVII of REACH Regulation (EC) No 1907/2006
Polychlorinated Naphthalenes (PCNs)*	Lubricant, paint, stabilizer (electric characteristic, flame-resistant, waterresistant) insulator, flame retardant	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law), and Regulation of the European Parliament and of the Council on persistent organic pollutants(EU No 519/2012)
Bis(tributyltin) oxide (TBTO)	Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law);Candidate list (version of 29.10.2008), Article 59 (1, 10), Article 33, Article 7.2, European REACH Regulation No. 1907/2006/EC
Tri-substituted organostannic compounds*	Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, anti-fungal agent, paint, pigment, antistaining	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010; Japan Law concerning the evaluation of chemical substances Norwegian product regulation

Specific Substance or group	Typical Applications	Basis Description / Legislation
Bis(2-methoxyethyl) ether	Electrolyte in lithium batteries	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)
Bis(2-methoxyethyl) phthalate	Plasticizer	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)
Pentazinc chromate octahydroxide	Colorant	European REACH Regulation No. 1907/2006/EC (Candidate list of SVHC for authorization 19.12.2011)
Perfluorooctane sulfonates (PFOS)*	Antistatic agent for films and plastics	(EG) No 2019/1021 (POPs regulation); Canadian Environmental Protection Act SOR/SOR/2008-178; Japan Law concerning the evaluation of chemical substances
Short-chain chlorinated paraffin (SCCP, C10-13)	PVC plasticizer, flame retardant	(EG) No 2019/1021 (POPs regulation)
Formaldehyde	Wood products, MDF	DE Chemverbotsverordnung; DK Formaldehyde Regulation
Specific bezontriazole (UV 320) CAS-Nr. 3846-71-7	UV absorption agents, photo coating resins	CSCL
Polycyclic aromatic hydrocarbons (PAH)*	Rubber or black plastic	ANNEX XVII of REACH Regulation (EC) No 1907/2006; (EG) No 2019/1021 (POPs regulation)
Hexabromocyclododecane (HBCD)	Flame retardant	(EG) No 2019/1021 (POPs regulation)
Perfluorooctanoic (PFOA) related substances*	Greases	ANNEX XVII of REACH Regulation (EC) No 1907/2006

\*in case of substance group or for detailed CAS-No, see reference and declarable list IEC62474  
 >><http://std.iec.ch/iec62474>



## Annex B:

### Reportable thresholds and controlled values

Specific Substance or group	Reporting Threshold	Controlled values*
Asbestos	Intentionally added	NA
Cadmium/Cadmium compounds	0.01 mass% of total Cd in homogenous material	given by DIN EN 62321-3-1 /10.2014
Chromium (VI) Compounds	0.1 mass% of total Cr+6 in homogenous material	given by DIN EN 62321-3-1 /10.2014
Dibutyltin (DBT) compounds	0.1 mass% of tin in the part	NA
Lead/Lead Compounds	0.1 mass% of total Pb in homogenous material	given by DIN EN 62321-3-1 /10.2014
Mercury/Mercury Compounds	Intentionally Added or 0.1 mass% of total Hg in homogenous material	given by DIN EN 62321-3-1 /10.2014
Bis (2-ethylhexyl)phthalate (DEHP)	0.1 mass% in homogenous material	NA
Dibutyl phthalate (DBP)	0.1 mass% in homogenous material	NA
Benzyl butyl phthalate (BBP)	0.1 mass% in homogenous material	NA
Diisobutyl phthalate	0.1 mass% in homogenous material	NA
Polybrominated Biphenyls (PBBs)	0.1 mass% in homogenous material	given by DIN EN 62321-3-1 /10.2014
Polybrominated Diphenylethers (PBDEs)	0.1 mass% in homogenous material	given by DIN EN 62321-3-1 /10.2014
Polychlorinated Biphenyls (PCBs) and specific substitutes	Intentionally added	NA
Polychlorinated Terphenyls (PCTs)	0.005 mass% in material	NA
Polychlorinated Naphthalenes (PCNs)	Intentionally added	NA
Bis(tributyltin) oxide (TBTO)	Intentionally added or 0.1 mass% of article	NA
Tri-substituted organostannic compounds	Intentionally added or 0.1 mass% of tin in the part	NA
Bis(2-methoxyethyl) ether	0.1 mass% of article	NA
Bis(2-methoxyethyl) phthalate	0.1 mass% of article	NA
Pentazinc chromate octahydroxide	0.1 mass% of article	NA
Perfluorooctane sulfonates (PFOS)	Intentionally added or 0.1 mass% of the part (as the sum of PFOS)	NA
Formaldehyde	Aerial concentration must be less 0.1ppm	NA
Specific bezontriazole	Intentionally added	NA

\*Values which Weidmüller controls before release and after delivery