

REACH, RoHS and WEEE. What is what?

REACH regulation

The chemicals regulation REACH focuses on environmental protection and the safe handling of chemicals.

REACH stands for registration, evaluation and authorization, as well as restriction of chemicals in general.

The ECHA (European Chemicals Agency based in Helsinki) implements the REACH regulations.

Substances of very high concern have to be listed on a candidate list. For these substances, information is mandatory within the supply chain.

RoHS directive

This directive aims at restricting the use of hazardous substances in electrical and electronic equipment.

The overall objective of these EU directives is to eliminate problematic components from electronic waste.

Confirmation of compliance with this directive shall be issued in accordance with the REACH Regulation.

For both REACH and RoHS, Annex 3 of the Chemicals Ordinance (ChemV), which contains the list of substances of very high concern (SVHC), must be considered. More than 200 substances are listed here, 10 of which are relevant in RoHS.

WEEE directive

This directive aims to prevent waste from electrical and electronic equipment and to reduce such waste through reuse, recycling and other forms of recovery.

Waste from electrical and electronic equipment represents one of the largest growing fractions of waste.

The WEEE directive has created a legal framework for collecting discarded electrical and electronic equipment from consumers, reducing the proportion of such equipment in household waste, and collecting raw materials properly and recycling them.

In Germany, disposal is regulated by the EAR (Stiftung Elektro-Altgeräte-Register).

All products concerned must be marked with the symbol of the crossed-out trash can.



Difference between EU RoHS und China RoHS

To protect human health and the environment, EU RoHS and China RoHS require the avoidance of ten substances - heavy metals and brominated flame retardants or plasticizers.

The restrictions or maximum permissible concentrations in homogeneous materials apply to the following substances:

Lead (Pb)	0,1 %	6
Mercury (Hg)	0,1 %	6
Cadmium (Cd)	0,01	%
Hexavalent chromium (Cr6+)	0,1 %	6
Polybrominated biphenyls (PBB)	0,1 %	6
Polybrominated diphenyl ether (PBDE)	0,1 %	6
Bis(2-ethylhexyl) phthalate (DEHP)	0,1 %	6
Butyl benzyl phthalate (BBP)	0,1 %	6
Dibutyl phthalate (DBP)	0,1 %	6
Diisobutyl phthalate (DIBP)	0,1 %	6

Technically necessary exceedances of the maximum concentrations are defined as exceptions in Annex III of the RoHS Directive, such as copper alloys with a mass percentage of up to 4 % lead (exception 6c).

Because of the different mass % proportions and the possible exceptions, we also do not confirm compliance with the frequently required 0.1% limit in our declaration of conformity, but write:

"that according to the information provided by our suppliers, none of the substances listed in Annex II RoHS or the listed exemptions according to Annex III above the permitted mass % are contained in the products supplied by us."

For China-RoHS, these exemptions do not exist. Exceedances of the maximum concentrations must be indicated by an orange-colored marking and a "Declaration of manufacturer according to China RoHS".



RoHS marking "e"

The green logo (alternatively black) shows an "e in a circle" and means that no hazardous substances are used in the product. A manufacturer's declaration is not required.



RoHS marking "10"

The orange logo (alternatively black) shows a "10 in a circle" and indicates the use of restricted substances and presence of a corresponding manufacturer's declaration "Declaration of manufacturer according to China RoHS".