

## To our customers

### RoHS-directive – purchasing and documentation

The RoHS Directive lays down rules for limiting the use of certain hazardous substances in electrical and electronic equipment. In addition, in the 2011 revision, the directive became a CE marking directive.

This means when purchasing an electrical or electronic product which is bearing the CE mark, the product complies with the RoHS directive. Further documentation is not required.

Information on the RoHS Directive can be found on the Commission's website <sup>1</sup>.

Therefore, if you are a manufacturer of the above equipment, you are dependent on suppliers of components for your production to prove that the limit values in the RoHS Directive are not exceeded. This can be e.g. be mechanical components, fasteners, hoses or cable ties.

At the same time, it should also be emphasized that you, as a manufacturer of electrical and electronic equipment, are responsible for ensuring that your products comply with applicable legislation. This is done, among other things, by specifying the components that are included in the finished product.

The flow chart below shows how the individual components should be specified when purchasing them.

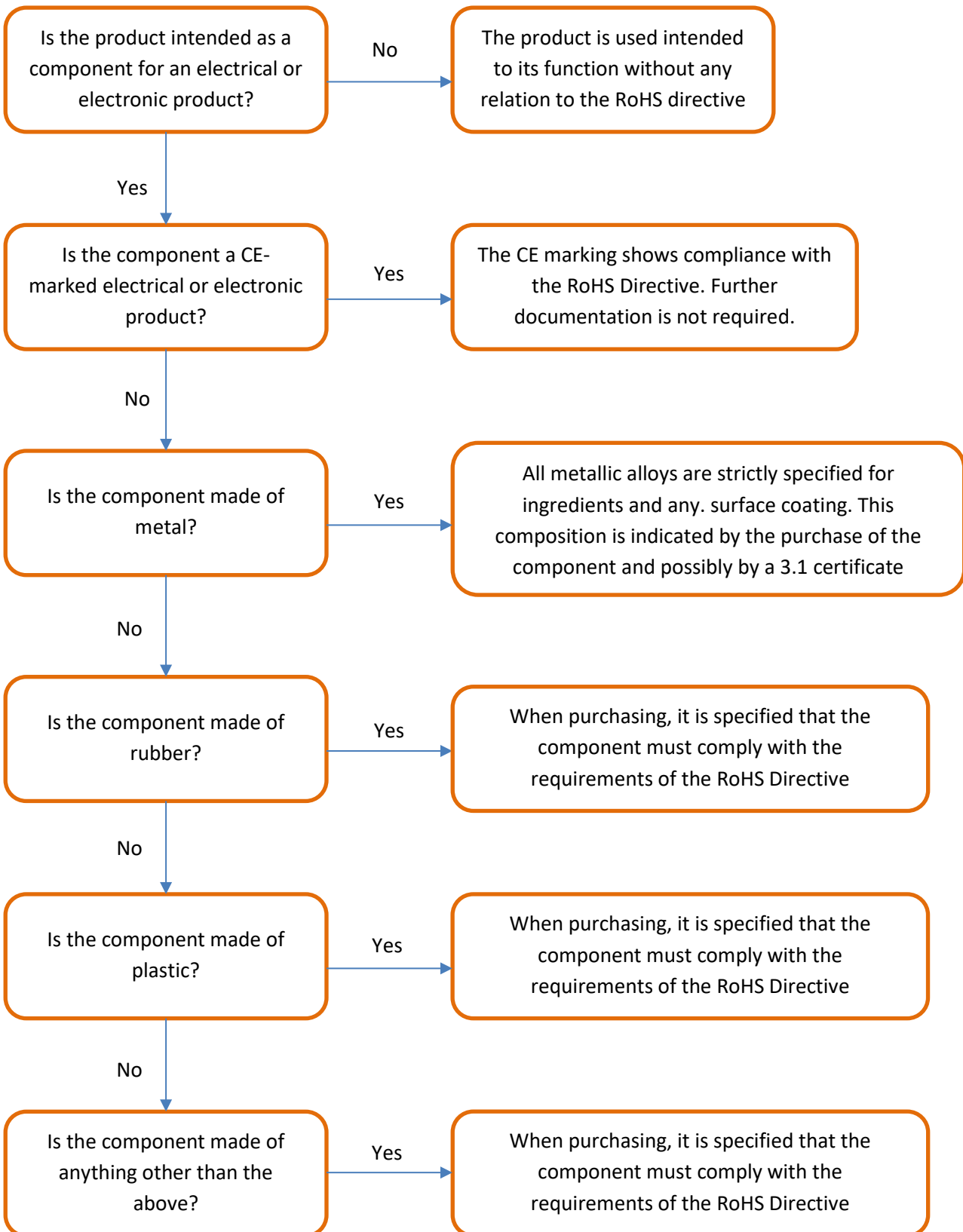
Such an up-front specification is important, as subsequent enquiries regarding compliance with the RoHS Directive may result in non-compliance.

The Directive 2015/863 amended Annex II to Directive 2011/65/EU in March 2015, resulting in a total of ten chemical substances. Th This is often mistakenly referred to as the RoHS 3 Directive, but this is only an amendment to the current 2011/65 version.

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<sup>1</sup> [https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/restriction-of-hazardous-substances\\_en](https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/restriction-of-hazardous-substances_en)

## Flow chart



## Postscript

In order to comply with the RoHS Directive, the limit values for the substances included in the product are as following:

- Cadmium (Cd):** < 100 ppm
- Lead (Pb):** < 1000 ppm
- Mercury (Hg):** < 1000 ppm
- Hexavalent Chromium: (Cr VI)** < 1000 ppm
- Polybrominated Biphenyls (PBB):** < 1000 ppm
- Polybrominated Diphenyl Ethers (PBDE):** < 1000 ppm
- Bis(2-Ethylhexyl) phthalate (DEHP):** < 1000 ppm
- Benzyl butyl phthalate (BBP):** < 1000 ppm
- Dibutyl phthalate (DBP):** < 1000 ppm
- Diisobutyl phthalate (DIBP):** < 1000 ppm

The Directive lays down rules for limiting the use of certain dangerous substances in electrical and electronic equipment.

Therefore, other products included in electrical and electronic equipment may meet the requirements of the Directive. This may, as previously stated, e.g. be mechanical components, fasteners, hoses or cable ties.

Manufacturers of the above equipment are therefore dependent on the manufacturers of these products to document that the above limit values are not exceeded.

If the products do not contain the mentioned substances, this can easily be declared in a signed document. There is nothing as a RoHS certificate as the directive is a CE marking directive for electrical and electronic equipment.

The next page provides an overview of the relevant standards to be used in relation to the Directive.

It should be mentioned that EN IEC 63000: 2018 is harmonized under the RoHS directive and must therefore be used to meet the requirements of the directive for producers of electrical and electronic equipment.

EN 62321-1:2013	Determination of certain substances in electrotechnical products - Part 1: Introduction and overview
EN 62321-2:2014	Determination of certain substances in electrotechnical products - Part 2: Disassembly, disjointment and mechanical sample preparation
EN 62321-3-1:2014	Determination of certain substances in electrotechnical products - Part 3-1: Screening - Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
EN 62321-3-2:2014	Determination of certain substances in electrotechnical products - Part 3-2: Screening - Total bromine in polymers and electronics by Combustion - Ion Chromatography
EN 62321-4:2014	Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS
EN 62321-4:2014/A1:2017	Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS
EN 62321-5:2014	Determination of certain substances in electrotechnical products - Part 5: Cadmium, lead and chromium in polymers and electronics and cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS
EN 62321-6:2015	Determination of certain substances in electrotechnical products - Part 6: Polybrominated biphenyls and polybrominated diphenyl ethers in polymers by gas chromatography-mass spectrometry (GC-MS)
EN 62321-7-1:2015	Determination of certain substances in electrotechnical products - Part 7-1: Hexavalent chromium - Presence of hexavalent chromium (Cr(VI)) in colorless and colored corrosion-protected coatings on metals by the colorimetric method
EN 62321-7-2:2017	Determination of certain substances in electrotechnical products - Part 7-2: Hexavalent chromium - Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method
EN 62321-8:2017	Determination of certain substances in electrotechnical products - Part 8: Phthalates in polymers by gas chromatography-mass spectrometry (GC-MS), gas chromatography-mass spectrometry using a pyrolyzer/thermal desorption accessory (Py/TD-GC-MS)
EN 62321:2009	Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances