

Munich, 18 July 2017

Certificate of Conformity (CoC)

- **European DIRECTIVE 2011/65/EU (RoHS II)**
- **European REACH REGULATION (EC)1907/2006**
- **European DIRECTIVE 2012/19/EC (WEEE)**
- **PULS statement on the Demand for "Halogen-Free Products"**

PULS Sales-number / Model Designation
ML100.109

Table 1

European DIRECTIVE 2011/65/EU (RoHS II)

PULS Standard Units listed in table 1 meet the restriction of the use of certain hazardous substances in electrical and electronic equipment of the Directive 2011/65/EU (RoHS II) of the European Parliament and of the Council of 8 June 2011.

The RoHS II conformity of these units is proved since June 2011 at the latest. For PULS Standard Units with launch after June 2011, the RoHS II compliance is already given from market launch.

PULS Standard Units listed in table 1 meet the restricted substances referred to Article 4 (1) and maximum concentration values by weight homogeneous materials according Annex II.

Annex II to Directive 2011/65/EU was amend by DIRECTIVE (EU) 2015/863 of 31 March 2015 of the European Parliament and of the Council. PULS confirms compliance with these additional substance restrictions under application of time limits.

Applications exempted from the restriction in Article 4(1) according to Annex III can be:

07a, 07c-I, 07c-II

European REACH Regulation (EC) 1907/2006

As a manufacturer of electronic power supplies, PULS GmbH is a "downstream user" with regards to the Regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Therefore, PULS is only providing information on only non-chemical articles (products). In principle, PULS GmbH is not subject to any obligation to register or to compile material safety data sheets.

PULS hereby confirms that its electronic power supplies comply with the legal obligations regarding Article 33 of the European REACH Regulation 1907/2006 (Registration, Evaluation, Authorisation and Restriction of Chemicals), which came into force on 01.06.2007.

PULS and its suppliers will continuously review the actual ECHA "Candidate List" for additions and updates and act accordingly in compliance with REACH regulations. The actual candidate list is provided on the European Chemicals Agency website at:

<https://echa.europa.eu/candidate-list-table>

The information requirement of REACH Article 33 is done by considering of the ECJ-Judgment (Case C-106/14) for calculating the SVHC content in articles.

Within our supply chain we got following REACH Article 33 information that PULS Standard Units (listed in table 1) contain (a) component(s) with following SVHC (Article 59) listed substances > 0.1 % by weight.

Description affected articles	SVHC listed substances > 0.1 % by weight	EC #	CAS #
SMD-Z-DIODE	Lead monoxide (lead oxide)	215-267-0	1317-36-8
Out of our supply chain we have currently no information that material safety data sheets must be made available for units listed in table 1.			

Table 2

PULS will replace SVHC listed substances respectively that article through an alternative solution as far it is technically and economically feasible.

European DIRECTIVE 2012/19/EU (WEEE)

Based on their normal industrial application, PULS Standard Units listed in *table 1* are not subject of the current scope of the DIRECTIVE 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE).

In accordance with article 2 (1b), of the DIRECTIVE 2012/19/EU our Standard Units listed in *table 1* shall be subject the current scope of the DIRECTIVE 2012/19/EU no earlier than 15. August 2018.

Note to customer applications which fall within the scope of the WEEE.

PULS standard products which intended to be used in customer applications and falling within the scope of DIRECTIVE 2012/19/EU, require a private legal agreement with PULS. For this purpose please contact your sales representative at PULS.

PULS position on the demand for "Halogen-Free Products"

Concerning the requirement of a halogen-free design of products PULS GmbH orientates to the ZVEI Position Paper on the Demand for "Halogen-Free Products" in the Electrical and Electronics Industry (Edition: Oct. 2010).

Base on this ZVEI position paper we can do following "Halogen-free" statements for materials contained in PULS Standard Units listed in table 1:

- Plastic or chemical materials (e.g. housing parts, sliders, connectors, terminals, glue, heat conductive paste, etc.) do not contain halogens.
- All other material shall contain halogens according IEC 61249-2-21, with max. 1500 ppm halogens in total (max. 900 ppm bromine; max. 900 ppm chlorine) as far it is possible on the state of the art and/or economic viability.

Change History

Revision Date	Change Description
18.07.2017	New edition

Name and address of the responsible manufacturer

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i. V. Mr. Friedrich Haunschild, Vice President Quality & Management Systems
name, function, signature