

Munich, 27.05.2026

Material Declaration of Compliance (M-DoC)

- European DIRECTIVE 2011/65/EU (**RoHS II**)
- Chinese MIIT Order 32 (**China-RoHS 2**)
- European REACH REGULATION (EC)1907/2006
- European POP REGULATION (EU) 2019/1021
- U.S. EPA TSCA Section 6(h) - **PBTs**
- U.S. EPA TSCA Section 8(a)(7) – **PFAS**
- **California Proposition 65** (Safe Drinking Water and Toxic Enforcement Act of 1986)
- PULS Statement regarding requirement "**Asbestos-Free**" devices
- PULS Statement regarding requirement "**Halogen-Free**" devices
- Free of paint wetting impairment substances (**LABS**) in accordance to VDMA 24364
- European REGULATION (EU) 2025/40 on packaging and packaging waste (**PPWR**) and Commission DECISION 97/129/EC on packaging identification

PULS Sales-number / Model Designation
PIC480.241D

European DIRECTIVE 2011/65/EU (RoHS II)

The declared device meets regulations regarding the restriction in the use of certain hazardous substances in electrical and electronic equipment according the DIRECTIVE 2011/65/EU (RoHS II) amended by DIRECTIVE (EU) 2017/2102.

The RoHS II conformity of the declared device has been in effect since the date of market launch and at the earliest when DIRECTIVE 2011/65/EU come into force.

The declared device meets the restricted substances referred to in Article 4 (1) and maximum concentration values by weight of homogeneous materials according to Annex II.

Annex II to the Directive 2011/65/EU was amended by DIRECTIVE (EU) 2015/863. PULS confirms compliance with these additional substance restrictions.

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

07a, 07c-I, 34

Note: The technical documentation as proof of compliance with the applicable RoHS DIRECTIVE 2011/65/EU is given in accordance with EN IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances).

Chinese MIIT Order 32 (China-RoHS 2)

The declared device meets the Measures for Restriction of the Use of Hazardous Substances in Electrical & Electronic Products Order No. 32 (China-RoHS II) of the Chinese Ministry of Industry and Information Technology (MIIT).

Hazardous Substance Control Table in compliance with Chinese SJ/T 11364-2024 for the declared device.

部件名称 Part Name	有毒有害物质或元素 Toxic or hazardous Substances and Elements									
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr (VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)	邻苯二甲酸二(2-乙基)己酯 Di(2-ethylhexyl) phthalate (DEHP)	邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP)	邻苯二甲酸二丁酯 Dibutyl phthalate (DBP)	邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP)
Printed Circuit Boards Assemblies	X	O	O	O	O	O	O	O	O	O
Housing Body	O	O	O	O	O	O	O	O	O	O
Housing Cover	O	O	O	O	O	O	O	O	O	O
Terminals	O	O	O	O	O	O	O	O	O	O
Labels	O	O	O	O	O	O	O	O	O	O
DIN-Rail-Slider	O	O	O	O	O	O	O	O	O	O
<p>O: 表示该有害物质在该部件所有均质材料中的含量均低于 GB/T 26572-2019 规定的限量要求。 O: Indicates that the concentration of the hazardous substance in all homogeneous materials of the part is below the limit requirement of GB/T 26572-2019.</p> <p>X: 表示该有害物质在该部件的至少一种均质材料中的含量超过 GB/T 26572-2019 规定的限量要求。 X: Indicates that the concentration of the hazardous substance in at least one homogeneous material of the part exceeds the limit requirement of GB/T 26572-2019.</p> <p>环保期限 (EFUP) 的产品及其部件是每个列出的符号, 除非另有标明。使用期限只适用于产品在产品手册中规定的条件下工作 The Environmentally Friendly Period (EFUP) for the product and its parts are per the symbol listed, unless otherwise marked. The Period of use is valid only when the product is operated within the conditions defined in the product manual.</p>										

The EFUP of the declared device is 25 years.
The unit is marked with following EFUP symbol:



The product is marked with the corresponding Environmental Protection Use Period symbol (e-marking) in accordance with China RoHS 2 requirements. The EFUP is valid under the operating conditions specified in the product documentation. The product contains at least one hazardous substance but can be used safely during the Environmental Protection Use Period. After expiry of this period, the product should be recycled or disposed of properly.

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 providing information only on 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 and the restrictions outlined in Annex XVII of the European REACH Regulation 1907/2006 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 met by considering the ECJ-Judgment (Case C-106/14) for calculating the SVHC content in articles.

The SVHC weight calculation is done in recommendation according to the - ECHA Guidance on requirements for substances in articles.

Within PULS supply chain the company received the following REACH Article 33 information that the declared device contains component(s) with the following SVHC (Article 59) listed substances >0.1% by weight.

Article Group	SVHC listed substances > 0.1 % by weight / EC / CAS
Electronic Component(s) Insulation Tape	Lead / 231-100-4 / 7439-92-1 DBDPE / 284-366-9 / 84852-53-9
SCIP-ID	a5260ba8-c4b3-4a53-ac33-78ceee28c4ea

From PULS supply chain there is currently no information that material safety data sheets must be made available for the declared device.

PULS will replace SVHC listed substances with alternative solutions as far as is technically and economically feasible.

Note: The technical documentation as proof of compliance with the applicable REACH Regulation 1907/2006 is given in accordance with *EN IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances)*.

European POP REGULATION (EU) 2019/1021

PULS confirms compliance with Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants (POP).

Based on current information and supplier declarations, the declared device does not contain any substances listed in Annex I of the POP Regulation. Furthermore, no exemptions pursuant to Article 4 of the Regulation are used in the declared device.

Note: The technical documentation demonstrating compliance with the POP Regulation (EU) 2019/1021 is compiled in accordance with EN IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances).

U.S. EPA TSCA Section 6(h) - PBTs

The United States Environmental Protection Agency (EPA) requires under the Toxic Substances Control Act (TSCA) Section 6(h) restrictions and information obligation regarding the 5 PBT substances.

For the declared device there is to-date no evidence within our supply chain that our products contain articles with prohibited PBT substances listed in TSCA Section 6(h).

Note: The technical documentation as proof of compliance with the applicable TSCA Section 6(h) (USA) is given in accordance with IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances).

U.S. EPA TSCA Section 8(a)(7) – PFAS

PULS is not a manufacturer of substances from the PFAS substances group. Our responsibility and scope of action therefore lie in evaluating information received from our supply chain regarding PFAS applications.

PULS hereby confirms that it will comply with the reporting obligations under U.S. EPA TSCA Section 8(a) (7) based on information that is known or reasonably ascertainable.

The assessment of PFAS content is based exclusively on supplier declarations. PULS does not perform chemical analysis or reverse engineering of materials to determine PFAS content.

Where suppliers confirm the presence of PFAS substances but do not disclose detailed substance-specific information (e.g., CAS number, concentration, or specific application), such information cannot be provided.

In such cases, PFAS presence is declared based on available supplier information without further specification.

Therefore, any PFAS declaration reflects the current state of knowledge within the supply chain and does not constitute a complete substance disclosure. PULS will update this information as soon as additional data becomes available from our supply chain.

Name PFAS Substance	CAS-No	Quantity (mg)	Intended use in the device	Status of PFAS alternatives	Source / Remark
Polytetrafluoroethylene (PTFE)	9002-84-0	32	KR-Relays	currently not technically substitutable	supplier declaration

Note:

- The technical documentation as proof of compliance with the applicable TSCA Section 8(a) (7) (USA) is given in accordance with IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances).
- For certain components, suppliers have confirmed the presence of PFAS substances but have not disclosed further substance-specific details. In such cases, data is reported based on available supplier information only.
- Any quantitative values provided represent typical values based on current knowledge and do not constitute exact material composition data.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This PULS declared device may contain one or more substances listed under California Proposition 65 (Title 27, California Code of Regulations). As required under Proposition 65, we hereby inform our business customers (B2B) in the state of California that such substances may be present above the regulatory thresholds. In accordance with Section 25607.1 of the regulation, we provide this written notice to comply with Proposition 65 requirements for business-to-business transactions. No product labeling is required when such notice is properly communicated and acknowledged.

A current list of Proposition 65 substances can be found at: <https://www.p65warnings.ca.gov/chemicals>

The following substance(s) may be present in this product:

Substance	CAS Number	Application Context
Lead (Pb)	7439-92-1	Solder joints / component lead-frames

These substances are encapsulated or present in solid form, and no significant exposure is expected under normal handling and use. This information is provided in good faith and based on the best available data from our suppliers.

PULS Statement regarding requirement “Asbestos-Free” devices

The **declared device is “asbestos free”** as regulated by the REACH Regulation (EC)1907/2006.

Note: The technical documentation as proof of compliance with the applicable REACH Regulation 1907/2006 is given in accordance with *EN IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances)*.

PULS Statement regarding requirement “Halogen-Free” devices

Based on IEC 61249-2-21, PULS GmbH declares its devices as halogen-free if the total concentration of halogens in the device does not exceed 1500 ppm.

The halogen content of the device declared here is **more than 1500 ppm** in relation to the total weight of the device. The device is therefore declared as - **containing halogens** - with the halogen content specified below in relation to the **total weight of the device**.

Bromine (in ppm)	Chlorine (in ppm)	Fluorine (in ppm)
1861	0	0

Note: The technical documentation as proof of halogen-free compliance based on IEC 63000:2018 (Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances).

Free of paint wetting impairment substances (LABS) in accordance to VDMA 24364

The declared device is free of paint wetting impairment substances (LABS). The investigation for substances that impair paint wetting was carried out in accordance with VDMA 24364: 2018-05. The results are shown in the table below:

Test Report	Test class	Lacquer type	Designation of the LABS conformity
LAB-20-841	C1	solvent + water based (L/W)	VDMA24364-C1-L/W

European REGULATION (EU) 2025/40 on packaging and packaging waste (PPWR) and Commission DECISION 97/129/EC on packaging identification

This compliance declaration refers exclusively to the product-specific original primary packaging materials. Secondary and / or tertiary packaging materials used within the supply chain may vary depending on the mode of transport or are not always under our control. They are therefore not included in the following compliance declaration.

Compliance with the Requirements of Regulation (EU) 2025/40:

- The original primary packaging of the declared device complies with the essential requirements concerning composition, recyclability, reusability, and the minimization of environmental impact as defined in Regulation (EU) 2025/40.
- The concentration levels of heavy metals (lead, cadmium, mercury, and hexavalent chromium) in the packaging materials do not exceed the permitted threshold values specified in Article 5 of the Regulation.
- Measures have been implemented to support the reuse, recycling, and environmentally sound management of packaging waste in accordance with the obligations of the Regulation.

Compliance with the Requirements of Directive 97/129/EC:

- The original primary packaging of the declared device is marked in accordance with the identification system for packaging materials established by Directive 97/129/EC to facilitate sorting, reuse, and recycling.
- The following table shows the packaging materials used for the original primary packaging.

Packaging part name	Material name	Packaging code	Weight (in mg)
Box inlay	PAP Corrugated fibreboard	20-PAP	65000
Installation manual	Paper	22-PAP	1000
Folding cardboard	PAP Corrugated fibreboard	20-PAP	50000

Name and address of the responsible manufacturer

**PULS GmbH
Elektrastraße 6
81925 Munich
Germany**

Friedrich Haunschild*

Expert Material Compliance

**The M-DoC is valid with electronical signature.*

Validity and Updates of this Material Declaration of Compliance (M-DoC)

This M-DoC reflects the latest available information from our supply chain and is based on the applicable legal requirements and substance restrictions in effect at the date of issue.

The M-DoC is reviewed regularly and updated as necessary — particularly in the event of:

- relevant changes in applicable regulations,
- additions to the candidate lists (e.g., SVHC),
- or new declarations from suppliers.

This M-DoC remains valid until a revised version is officially issued and published by PULS. It is not necessary to request updates proactively; the latest version is always made available via our official communication channels.