

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 31.01.2018

Version number 2

Revision: 31.01.2018

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** SHERAprint-model
- **Registration number** SDB31402A
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
No further relevant information available.
- **Application of the substance / the mixture:** 3D printed material.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SHERA Werkstoff-Technologie GmbH & Co. KG  
Espohlstraße 53  
D-49448 Lemförde  
GERMANY  
sdb@shera.de
- **Further information obtainable from:** Department of product security.
- **1.4 Emergency telephone number:**  
+49 5443 9933-0 This number is serviced during office hours.  
Opening times: Monday to Thursday from 8 am . 5 pm, Friday from 8 am . 3 pm.

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008:**  
Skin Sens. 1      H317 May cause an allergic skin reaction.  
Aquatic Chronic 4   H413 May cause long lasting harmful effects to aquatic life.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms:**



GHS07

- **Signal word:** Warning
- **Hazard-determining components of labelling:**  
Phosphinoxid
- **Hazard statements:**  
H317 May cause an allergic skin reaction.  
H413 May cause long lasting harmful effects to aquatic life.
- **Precautionary statements:**  
P261      Avoid breathing mist/vapours/spray.  
P280      Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501      Dispose of contents / container in accordance with local / regional / national / international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

Methacrylat oligomere	Aquatic Chronic 4, H413	>90%
Phosphinoxid	Skin Sens. 1, H317; Aquatic Chronic 4, H413	<3%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
In case of troubles or persistent symptoms, consult an medical.
- **After inhalation:**  
Take affected persons into fresh air and keep quiet.  
Seek medical treatment.
- **After skin contact:**  
After contact with skin, wash immediately with plenty of water and soap.  
In case of skin irritation, seek medical treatment.
- **After eye contact:**  
Rinse opened eye for several minutes under running water.  
In case of troubles or persistent symptoms, consult an ophthalmologist.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
Foam.  
Fire-extinguishing powder.  
Carbon dioxide.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**  
High temperatures can lead to spontaneous polymerisation of the material.
- **5.3 Advice for firefighters** In case of fire, cool endangered receptacles with water spray.
- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation.  
Wear protective clothing.  
Keep away from ignition sources.  
Use respiratory protective device against the effects of fumes / dust / aerosol.
- **6.2 Environmental precautions** Do not allow to enter sewers / surface or ground water.

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- **6.3 Methods and material for containment and cleaning up**  
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, universal binding agents).  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Keep receptacles tightly sealed.  
Ensure good ventilation / exhaust at the workplace.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Maximum storage temperature: 25°C  
Keep away from light.  
Fill the container only up to 80 %, as oxygen (air) is necessary for stabilization.  
Might polymerize with high heat release.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store receptacle in a well ventilated area.  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** No information available.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product. Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**

Protective gloves have to be replaced at the first sign of deterioration.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Liquid

**Colour:** Yellow

- **Odour:** Ester-like

- **pH-value:** Not determined.

- **Change in condition:**

**Melting point/freezing point:** Undetermined.

**Initial boiling point and boiling range:** > 100 °C

- **Flash point:** > 93 °C

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** 430 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Density at 20 °C:** 1,11 - 1,15 g/cm<sup>3</sup>

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Viscosity:**

**Dynamic at 20 °C:** 800 - 1500 mPas

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- **Solvent content:**
- VOC (EC):** 0.00 %
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No data available.
- **10.2 Chemical stability**  
The delivered product is normally in stabilized condition.  
However, it might polymerize with heat release, if the storage period and / or the storage temperature is / are exceeded.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with strong oxidising agents.  
Polymerization with heat release is possible in connection with radical forming agents (e.g. peroxides), reducing agents and/or heavy metal ions.
- **10.4 Conditions to avoid**  
Exceeding of storage period and / or storage temperature.  
Protect from direct sunlight.
- **10.5 Incompatible materials**  
Oxidizing agents, strong.  
Reducing agents.  
Inert gases.  
Oxygen consumer.
- **10.6 Hazardous decomposition products** No further relevant information available.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** No data available.
- **LD/LC50 values relevant for classification:**  
Dermal LD50 >2000 mg/kg Rat  
Oral LD50 >2000 mg/kg Rat
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste disposal key:**  
The waste disposal code as prescribed in the European Waste Catalogue (EWC) depends on the waste producer and can thus vary for a product. The waste disposal code should thus be obtained separately from the waste producer in each case.
- **European waste catalogue:**  
According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |                           |
|---|---------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> <li>· <b>ADN</b></li> </ul>   | <p>Void.</p> <p>Void.</p> |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p>Void.</p>              |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> <li>· <b>Class</b></li> <li>· <b>ADN/R Class:</b></li> </ul> | <p>Void.</p> <p>Void.</p> |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p>Void.</p>              |
| <ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>  | <p>No.</p>                |
| <ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> </ul>  | <p>Not applicable.</p>    |
| <ul style="list-style-type: none"> <li>· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>  | <p>Not applicable.</p>    |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>   | <p>Void.</p>              |

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### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Information about limitation of use:**  
Employment restrictions concerning juveniles must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on the state of knowledge and experience pertaining on the date of issue. The information is not to be taken as a guarantee of product properties and do not constitute the basis for a contractual legal relationship. The details must not be changed or transferred to other products. Duplication in an unchanged state is permissible.

- **Relevant phrases**  
H317 May cause an allergic skin reaction.  
H413 May cause long lasting harmful effects to aquatic life.
- **Department issuing SDS:** Department of product security.
- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Skin Sens. 1: Skin sensitisation . Category 1  
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard . Category 4
- **\* Data compared to the previous version altered.**

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