

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.02.2024



Version number 5 (replaces version 4)

Revision: 26.02.2024

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

- **1.1 Product identifier**
- **Trade name:** SHERAprint-model smoky white
- **Article number:** SD400390
- **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
Espohlstraße 53
D-49448 Lemförde
GERMANY
sdb@shera.de
+ 49 (0) 54 43 - 9933 - 0
- **Further information obtainable from:** Department of product security.
- **1.4 Emergency telephone number:**
Gif tinformationszentrum-Nord +49 (0) 551-19240
(Information in german or english)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008:**
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms:**


 GHS07 GHS09
- **Signal word:** Warning
- **Hazard-determining components of labelling:**
dimethacrylate
Acrylic resin
Phosphine oxide
- **Hazard statements:**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements:**
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection.
P280 Wear protective clothing.
P302+P352 IF ON SKIN: Wash with plenty of 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.

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2.3 Other hazards

In the presence of radical formers (e.g. peroxide), reducing substances and/or heavy metal ions, polymerisation is possible when heat develops.

Results of PBT and vPvB assessment:

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

• **Description:** Mixture of acrylics, extenders and initiators.

Dangerous components:

	dimethacrylate Aquatic Chronic 2, H411; Skin Sens. 1B, H317	<70%
	Acrylic resin Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1B, H317	<50%
CAS: 5187-23-5	5-ethyl-1,3-dioxane-5-methanol Eye Irrit. 2, H319	<3%
CAS: 75980-60-8 EINECS: 278-355-8 Index number: 015-203-00-X Reg.nr.: 01-2119972295-29	Phosphine oxide Repr. 2, H361f; Aquatic Chronic 2, H411; Skin Sens. 1B, H317	<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:** In case of troubles or persistent symptoms, consult an medical.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

After contact with skin, wash immediately with plenty of water and soap.

If skin irritation continues, consult a doctor.

Remove dirty clothing and wash before using again.

• **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

• **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:** CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.

• **For safety reasons unsuitable extinguishing agents:** Water with full jet.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO).

Carbon dioxide (CO₂).

Pyrolysis products, toxic.

5.3 Advice for firefighters

• **Protective equipment:** Wear self-contained respiratory protective device.

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· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.
Avoid contact with skin and eyes.
Do not breathe vapour or spray.
Use respiratory protective device against the effects of fumes / dust / aerosol.
Keep away from ignition sources.
Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions** Do not allow to enter sewers / surface or ground water.

· **6.3 Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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**

Do not breathe vapours.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good ventilation / exhaustion at the workplace.
Prevent formation of aerosols.

· **Information about fire - and explosion protection:**

Protect from direct sunlight.
In case of fire, cool endangered receptacles with water spray.
Protect from heat.
Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.
Keep away from light.
Keep container tightly closed.
Might polymerize with high heat release.
Storage temperature between 4 and 25°C.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **Storage class:** No information available.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **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.

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- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Ensure good ventilation / exhaustion at the workplace.
Pregnant women should strictly avoid inhalation or skin contact.
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Hand protection**



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.

Protective gloves should be changed regularly, in particular after intensive contact with the product.

- **Material of gloves:**
Nitrile rubber, NBR
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:**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** Safety glasses.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** smoky white
- **Odour:** characteristic
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** Undetermined.
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** >100 °C
- **Decomposition temperature:** Not determined.
- **pH** Not determined.
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **Dynamic:** Not determined.
- **Solubility**
- **water:** Not miscible or difficult to mix.

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· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition:	
· Evaporation rate	Not determined.
Information with regard to physical hazard classes	
· Explosives	Void.
· Flammable gases	Void.
· Aerosols	Void.
· Oxidising gases	Void.
· Gases under pressure	Void.
· Flammable liquids	Void.
· Flammable solids	Void.
· Self-reactive substances and mixtures	Void.
· Pyrophoric liquids	Void.
· Pyrophoric solids	Void.
· Self-heating substances and mixtures	Void.
· Substances and mixtures, which emit flammable gases in contact with water	Void.
· Oxidising liquids	Void.
· Oxidising solids	Void.
· Organic peroxides	Void.
· Corrosive to metals	Void.
· Desensitised explosives	Void.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No data available.
- **10.2 Chemical stability** No decomposition if used according to specifications.
- **Thermal decomposition / conditions to be avoided:** Keep away from heat. Protect from direct sunlight.
- **10.3 Possibility of hazardous reactions**
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**
Protect from exposure to light.
Only store in the original container at a temperature of between 4 and 25°C.
Can polymerise with severe heat development.
- **10.5 Incompatible materials**
Oxidizing agents.
Reducing agents.
Acids.
Alkalis (alkalis).
Metal.

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- **10.6 Hazardous decomposition products** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

dimethacrylate

Oral	LD50	>5,000 mg/kg (Rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (Rat) (OECD 402)

Acrylic resin

Oral	LD50	>2,000 mg/kg (Rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (Rat) (OECD 402)

5187-23-5 5-ethyl-1,3-dioxane-5-methanol

Oral	LD50	>2,000 mg/kg (Rat) (OECD 401)
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75980-60-8 Phosphine oxide

Oral	LD50	>5,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rat)

- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **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.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

dimethacrylate

EC50/48h	>1.2 mg/l (Daphnia (Daphnia magna))
LC50/96 h	10.1 mg/l (Fish)

Acrylic resin

EC50/48h	20 mg/l (crustaceans) (OECD 201)
LC50/96 h	4 mg/l (Fish)

5187-23-5 5-ethyl-1,3-dioxane-5-methanol

EC50/48h	2,466 mg/l (Daphnia (Daphnia magna))
LC50/96 h	>1,000 mg/l (Fish)

75980-60-8 Phosphine oxide

EC50/48 h	3.53 mg/l (Daphnia (Daphnia magna))
EC10	1.56 my (Algae)

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EC50/72 h >2.01 mg/l (Algae)

LC50/48 h 6.53 mg/l (Fish)



- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish.
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:**
Smaller quantities could be cured with light and can be disposed of as household waste. Larger quantities shall be disposed of as special waste in accordance with local regulations.
- **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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA** UN3082
- **14.2 UN proper shipping name**
- **ADR** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic resin)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic resin, Phosphine oxide), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic resin, Phosphine oxide)
- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**
- **Class**



- **Class** 9 Miscellaneous dangerous substances and articles.

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· Label	9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ): · Excepted quantities (EQ): · Transport category: · Tunnel restriction code: · Remarks:	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 (-) SV 375: These substances, when carried in single or combination packagings of a net quantity not exceeding 5 litres of liquids or a net mass not exceeding 5 kg of solids per single or combination packaging, are not subject to the other provisions of ADR, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
· IMDG · Limited quantities (LQ): · Excepted quantities (EQ):	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IATA · Remarks:	A 197: These substances are not subject to other provisions of these Regulations when carried in single or combination packagings with a net quantity per single or inner packaging not exceeding 5L for liquids and a net weight not exceeding 5kg for substances, provided the packagings meet the general requirements of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACRYLIC RESIN), 9, III

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.

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- **Seveso category E2** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **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**

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H361f Suspected of damaging fertility.
- H411 Toxic to aquatic life with long lasting effects.

- **Department issuing SDS:** Department of product security.

- **Abbreviations and acronyms:**

- ADR: Accord relatif au transport international 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Skin Sens. 1B: Skin sensitisation – Category 1B
- Repr. 2: Reproductive toxicity – Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- *** Data compared to the previous version altered.**