

according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

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

1.1 Product identifier

Trade name

Registration number (REACH)

Unique formula identifier (UFI)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses.

1.3 Details of the supplier of the safety data sheet

AprintaPro GmbH Gutheil Schoder Gasse 17 1230 Wien Austria

Telephone: +43 1 997809410 e-mail: office@aprintapro.com Website: https://www.aprintapro.com

e-mail (competent person)

1.4 Emergency telephone number Emergency information service Value Resin - Water Washable not relevant (mixture) JDES-P1V0-200W-HX83

3D printing resin

office@aprintapro.com

+43 1 997809410 This number is only available during the following office hours: Mon-Fri 08:00 - 16:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and category	Hazard state- ment
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.4S	skin sensitisation	1	Skin Sens. 1	H317
3.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	hazardous to the aquatic environment - chronic haz- ard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word danger



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

- Pictograms

GHS05, GHS07, GHS08, GHS09



- Hazard statements	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
- Precautionary statements	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

P103	Read carefully and follow all instructions.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Supplemental hazard information

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Tactile warning of danger

- Hazardous ingredients for labelling

yes

4-(1-oxo-2-propenyl)-morpholine, phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide, 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid, 2-hydroxyethyl methacrylate, hexamethylene diacrylate, 4,4'-Isopropylodenediphenol, oligomeric reaction products with 1chloro-2,3-epoxypropane, Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

Date of compilation: 2024-10-07

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\ge 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier		Wt%	Classification acc. to GHS
4-(1-oxo-2-propenyl)-morpholine	CAS No	5117-12-4	25-<50	Acute Tox. 4 / H302 Eye Dam. 1 / H318 Skin Sens. 1 / H317 STOT RE 2 / H373
Trimethylolpropane (EO)6 Triacrylate	CAS No	28961-43-5	25-<50	Eye Irrit. 2 / H319 Skin Sens. 1B / H317 Aquatic Chronic 3 / H412
4,4'-Isopropylidenediphenol, oligomeric re- action products with 1-chloro-2,3-	CAS No	55818-57-0	10-<25	Skin Sens. 1 / H317 Aquatic Acute 1 / H400



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

Name of substance	Identifier		Wt%	Classification acc. to GHS
epoxypropane, esters with acrylic acid				Aquatic Chronic 2 / H411
2-hydroxyethyl methacrylate	CAS No	868-77-9	10-<25	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317
hexamethylene diacrylate	CAS No	13048-33-4	2-<5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317 Aquatic Acute 1 / H400 Aquatic Chronic 2 / H411
phenyl bis(2,4,6-trimethylbenzoyl)-phos- phine oxide	CAS No	162881-26-7	< 2	Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 4 / H413
4,4'-Isopropylodenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane	CAS No	25068-38-6	< 2	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317 Aquatic Chronic 2 / H411
Polymer with quaternized ammonium groups	CAS No	1431957-88-8	< 2	Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	CAS No	16096-31-4 933999-84-9	< 2	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317 Aquatic Chronic 3 / H412

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
4-(1-oxo-2-propenyl)-morpholine	-	-	588 ^{mg} / _{kg}	oral
4,4 ⁻ Isopropylidenediphenol, oligo- meric reaction products with 1- chloro-2,3-epoxypropane, esters with acrylic acid	s with 1- ne, esters		-	
phenyl bis(2,4,6-trimethylben- zoyl)-phosphine oxide	-	M-factor (acute) = 10	-	
4,4'-Isopropylodenediphenol, oli- gomeric reaction products with 1- chloro-2,3-epoxypropane	Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 %	-	-	

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed none



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

7.2 Conditions for safe storage, including any incompatibilities

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits) this information is not available

	Relevant DNELs of components							
CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time			
5117-12-4	DNEL	132,2 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects			
5117-12-4	DNEL	132,2 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects			
5117-12-4	DNEL	300 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
5117-12-4	DNEL	300 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects			
55818-57-0	DNEL	1,17 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects			
55818-57-0	DNEL	33 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
868-77-9	DNEL	4,9 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects			
868-77-9	DNEL	1,3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
13048-33-4	DNEL	24,5 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects			
13048-33-4	DNEL	2,77 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
16096-31-4 933999-84-9	DNEL	10,57 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects			
16096-31-4 933999-84-9	DNEL	10,57 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects			
16096-31-4 933999-84-9	DNEL	0,44 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects			
16096-31-4 933999-84-9	DNEL	6 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
16096-31-4 933999-84-9	DNEL	22,6 µg/cm ²	human, dermal	worker (industry)	chronic - local effects			
16096-31-4 933999-84-9	DNEL	22,6 µg/cm ²	human, dermal	worker (industry)	acute - local effects			

	Relevant PNECs of components							
CAS No	CAS No Endpoint Threshold level		Organism	Environmental compart- ment	Exposure time			
5117-12-4	PNEC	0,012 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)			
5117-12-4	PNEC	0,009 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)			
5117-12-4	PNEC	0,001 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)			
55818-57-0	PNEC	0,025 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)			
55818-57-0	PNEC	0,003 ^{mg} /l	aquatic organisms	marine water	short-term (single instance)			
55818-57-0	PNEC	10 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)			
55818-57-0	PNEC	8,96 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)			
55818-57-0	PNEC	0,896 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)			
55818-57-0	PNEC	1,78 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)			



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

		I	Relevant PNECs of compo	nents		
CAS No	Endpoint	Threshold level	Organism	Environmental compart- ment	Exposure time	
868-77-9	PNEC	0,482 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instand	
868-77-9	PNEC	0,482 ^{mg} / _l	aquatic organisms	marine water	short-term (single instand	
868-77-9	PNEC	10 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instand	
868-77-9	PNEC	3,79 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instand	
868-77-9	PNEC	3,79 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instand	
868-77-9	PNEC	0,476 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instand	
13048-33-4	PNEC	0,007 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instand	
13048-33-4	PNEC	0,001 ^{mg} / _l	aquatic organisms	marine water	short-term (single instan	
13048-33-4	PNEC	2,7 ^{mg} /I	aquatic organisms	sewage treatment plant (STP)	short-term (single instand	
13048-33-4	PNEC	0,493 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instar	
13048-33-4	PNEC	0,049 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instand	
13048-33-4	PNEC	0,094 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instand	
16096-31-4 933999-84-9	PNEC	0,011 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instand	
16096-31-4 933999-84-9	PNEC	0,001 ^{mg} / _l	aquatic organisms	marine water	short-term (single instand	
16096-31-4 933999-84-9	PNEC	1 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instand	
16096-31-4 933999-84-9	PNEC	0,283 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instan	
16096-31-4 933999-84-9	PNEC	0,028 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instan	
16096-31-4 933999-84-9	PNEC	0,223 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instan	

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Type of material

NBR: acrylonitrile-butadiene rubber

- Material thickness

≥0,6mm

- Breakthrough times of the glove material
 - >480 minutes (permeation: level 6)
- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filtering half mask (EN 149). P1 (filters at least 80 % of airborne particles, colour code: White).



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Date of compilation: 2024-10-07

Version number: SDS 1.0

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	Physical state	liquid
	Colour	acc. to product description
	Odour	characteristic
	Melting point/freezing point	not determined
	Boiling point or initial boiling point and boiling range	98,82 °C at 0,71 mbar
	Flammability	this material is combustible, but will not ignite readily
	Lower and upper explosion limit	not determined
	Flash point	not determined
	Auto-ignition temperature	235 $^{\circ}\text{C}$ (auto-ignition temperature (liquids and gases))
	Decomposition temperature	not relevant
	PH (value)	$6-8$ (in aqueous solution: 100 $^{mg}/_{cm^3}$, 25 °C)
	Kinematic viscosity	not determined
	Solubility(ies)	not determined
	Partition coefficient	
	Partition coefficient n-octanol/water (log value)	this information is not available
	Vapour pressure	0,08 hPa at 20 °C
	Density and/or relative density	
	Density	1,1 ^g / _{cm³} at 25 °C
	Relative vapour density	information on this property is not available
	Particle characteristics	not relevant (liquid)
9.2	Other information	
	Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
	Other safety characteristics	
	Temperature class (EU, acc. to ATEX)	T3 (maximum permissible surface temperature on the equipment: 200°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

- If heated:
- Exothermic polymerisation
- If exposed to light:

Exothermic polymerisation.

10.2 Chemical stability See below "Conditions to avoid".

10.3 Possibility of hazardous reactions No known hazardous reactions.



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

10.5

10.4 Conditions to avoid UV-radiation/sunlight.

Incompatible materials

Oxidisers, Reducing agents

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Harmful if swallowed.

- Acute toxicity estimate (ATE) Oral 1.833 ¹

1.833 ^{mg}/_{kg}

Name of substance	CAS No	Exposure route	ATE
4-(1-oxo-2-propenyl)-morpholine	5117-12-4	oral	588 ^{mg} / _{kg}
Skin corrosion/irritation			•
Causes skin irritation.			
Serious eye damage/eye irritation			
Causes serious eye damage.			
Respiratory or skin sensitisation			
May cause an allergic skin reaction.			
Germ cell mutagenicity			
Shall not be classified as germ cell mutagenic.			
Carcinogenicity			
Shall not be classified as carcinogenic.			
Reproductive toxicity			
Shall not be classified as a reproductive toxicant.			
Specific target organ toxicity - single exposure			
Shall not be classified as a specific target organ t	toxicant (single exposure)).	
Specific target organ toxicity - repeated exposure			
May cause damage to organs through prolonged	or repeated exposure.		
Aspiration hazard			
Shall not be classified as presenting an aspiration	n hazard.		
nformation on other hazards			
There is no additional information.			
SECTION	N 12: Ecological info	rmation	

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

11.2



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

	Aqua	tic toxicity (acut	e) of components		
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4-(1-oxo-2-propenyl)-morpholine	5117-12-4	LC50	>220 ^{mg} /I	fish	24 h
4-(1-oxo-2-propenyl)-morpholine	5117-12-4	EC50	230 ^{mg} / _l	aquatic invertebrates	24 h
4-(1-oxo-2-propenyl)-morpholine	5117-12-4	ErC50	>120 ^{mg} /I	algae	72 h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, esters with acrylic acid	55818-57-0	LL50	>100 ^{mg} / _l	fish	96 h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, esters with acrylic acid	55818-57-0	LC50	>0,082 ^{mg} / _l	fish	96 h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, esters with acrylic acid	55818-57-0	EC50	>16 ^{mg} /I	aquatic invertebrates	48 h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, esters with acrylic acid	55818-57-0	EL50	105 ^{mg} /I	algae	72 h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, esters with acrylic acid	55818-57-0	ErC50	17 ^{mg} / _l	algae	72 h
2-hydroxyethyl methacrylate	868-77-9	LC50	>100 ^{mg} /l	fish	96 h
2-hydroxyethyl methacrylate	868-77-9	EC50	380 ^{mg} / _l	aquatic invertebrates	48 h
2-hydroxyethyl methacrylate	868-77-9	ErC50	836 ^{mg} /I	algae	72 h
hexamethylene diacrylate	13048-33-4	LC50	0,38 ^{mg} / _l	fish	96 h
hexamethylene diacrylate	13048-33-4	EC50	8,3 ^{mg} /l	aquatic invertebrates	24 h
hexamethylene diacrylate	13048-33-4	ErC50	2,33 ^{mg} / _l	algae	72 h
phenyl bis(2,4,6-trimethylbenzoyl)-phos- phine oxide	162881-26-7	LC50	>90 ^{µg} /I	fish	96 h
phenyl bis(2,4,6-trimethylbenzoyl)-phos- phine oxide	162881-26-7	EC50	>1.175 ^{µg} / _I	aquatic invertebrates	48 h
phenyl bis(2,4,6-trimethylbenzoyl)-phos- phine oxide	162881-26-7	ErC50	>260 ^{µg} / _I	algae	72 h
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	16096-31-4 933999-84-9	LC50	30 ^{mg} / _l	fish	96 h
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	16096-31-4 933999-84-9	EC50	23,1 ^{mg} / _l	algae	48 h

	Aquatic toxicity (chronic) of components				
CAS No	Endpoint	Value	Species	Exposure time	
55818-57-0	EC50	>1.000 ^{mg} / _l	microorganisms	3 h	
868-77-9	EC50	90,1 ^{mg} / _l	aquatic invertebrates	21 d	
868-77-9	LC50	>100 ^{mg} /I	aquatic invertebrates	21 d	
13048-33-4	LC50	0,47 ^{mg} / _l	aquatic invertebrates	21 d	
13048-33-4	EC50	0,15 ^{mg} / _l	aquatic invertebrates	21 d	
162881-26-7	EC50	>100 ^{mg} / _l	microorganisms	3 h	

12.2 Persistence and degradability

Degradability of components					
CAS No	Process	Degradation rate	Time	Method	Source
55818-57-0	oxygen depletion	42 %	28 d		ECHA
13048-33-4	carbon dioxide genera-	60-70 %	28 d		ECHA



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

	Degradability of components					
CAS No	Process	Degradation rate	Time	Method	Source	
	tion					
162881-26-7	carbon dioxide genera- tion	1 %	29 d		ECHA	
16096-31-4 933999-84-9	oxygen depletion	47 %	28 d		ECHA	

12.3 Bioaccumulative potential

Data are not available.

	Bioaccumulative potential of components				
CAS No	BCF	Log KOW	BOD5/COD		
5117-12-4		-0,46 (21 °C)			
55818-57-0		1,6 – 3,8 (pH value: 6,4, 23 °C)			
868-77-9		0,42 (25 °C)			
13048-33-4		2,81 (25 °C)			
162881-26-7	<5	5,8 (pH value: 8,3, 22 °C)			
16096-31-4 933999-84-9	3,57	0,822 (20 °C)			

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of $\ge 0,1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

ersio	n number: SDS 1.0	Date of compilation: 2024-10-				
	ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.				
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.				
	ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.				
	Technical name (hazardous ingredients)	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1 chloro-2,3-epoxypropane, esters with acrylic acid, hexamethylen diacrylate				
4.3	Transport hazard class(es)					
	ADR/RID/ADN	9				
	IMDG-Code	9				
	ICAO-TI	9				
4.4	Packing group					
	ADR/RID/ADN	III				
	IMDG-Code	III				
	ICAO-TI	III				
4.5	Environmental hazards	hazardous to the aquatic environment				
	Environmentally hazardous substance (aquatic environment)	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1 chloro-2,3-epoxypropane, esters with acrylic acid, hexamethylen diacrylate				
4.6	Special precautions for user Provisions for dangerous goods (ADR) should be complied with	in the premises.				
4.7	Maritime transport in bulk according to IMO instruments The cargo is not intended to be carried in bulk.					
4.8	Information for each of the UN Model Regulations					
	Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - Additional information					
	Classification code	M6				
	Danger label(s)	9, fish and tree				
	Environmental hazards	yes (hazardous to the aquatic environment)				
	Special provisions (SP)	274, 335, 375, 601				
	Excepted quantities (EQ)	E1				
	Limited quantities (LQ)	5 L				
	Transport category (TC)	3				
	Tunnel restriction code (TRC)	-				
	Hazard identification No	90				
	International Maritime Dangerous Goods Code (IMDG) - Additional information					
	Marine pollutant	yes (hazardous to the aquatic environment) (4,4'-Isopropylidenedi- phenol, oligomeric reaction products with 1-chloro-2,3-epoxypropan esters with acrylic acid)				
	Danger label(s)	9, fish and tree				
	Special provisions (SP)	274, 335, 969				
	Excepted quantities (EQ)	E1				
	Limited quantities (LQ)	5 L				
	EmS	F-A, S-F				



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information				
Environmental hazards	yes (hazardous to the aquatic environment)			
Danger label(s)	9, fish and tree			
Special provisions (SP)	A97, A158, A197, A215			
Excepted quantities (EQ)	E1			
Limited quantities (LQ)	30 kg			

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	No	
Value Resin - Water Washable	this product meets the criteria for classification in accord- ance with Regulation No 1272/2008/EC		3	
4-(1-oxo-2-propenyl)-morpholine	substances in tattoo inks and permanent make-up		75	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	substances in tattoo inks and permanent make-up		75	
2-hydroxyethyl methacrylate	substances in tattoo inks and permanent make-up		75	
hexamethylene diacrylate	substances in tattoo inks and permanent make-up		75	
4,4'-Isopropylodenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	substances in tattoo inks and permanent make-up		75	

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Seveso Directive

	2012/18/EU (S	eveso III)		
No	Dangerous substance/hazard categories Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes	
E1	environmental hazards (hazardous to the aquatic environment, cat. 1)	100	200	56)

Notation

56) hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR) none of the ingredients are listed

Water Framework Directive (WFD)

List of pollutants (WFD)			
Name of substance	CAS No	Listed in	Remarks
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid		a)	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide		a)	



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

List of pollutants (WFD)			
Name of substance	CAS No	Listed in	Remarks
4,4'-Isopropylodenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		a)	
Reaction products of hexane-1,6-diol with 2-(chloromethyl)ox- irane (1:2)		a)	

Legend

a) Indicative list of the main pollutants

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	not all ingredients are listed
CA	NDSL	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
МХ	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
VN	NCI	all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Cariage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in re sponse (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organism
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	= EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC5 or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a s cified time interval
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environme acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in whic the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals



according to Regulation (EC) No. 1907/2006 (REACH)

Value Resin - Water Washable

Version number: SDS 1.0

Date of compilation: 2024-10-07

Abbr.	Descriptions of used abbreviations
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure
SVHC	Substance of Very High Concern
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.