



## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name : SR 7100 ISOBOND  
Product code : 1982.  
RESIN  
UFI : QPY5-W0YW-A00U-XDF3

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

Recommended use : resin  
Uses advised against : data not available

#### 1.3. Details of the supplier of the safety data sheet

Registered company name : Suter Kunststoffe AG  
Address : Aefligenstrasse 3, 3312 Fraubrunnen  
Telephone : +41 (0)31 763 60 60 Fax : +41 (0)31 763 60 61  
e-mail: info@swiss-composite.ch  
Site web : <http://www.swiss-composite.ch>

#### 1.4. Emergency telephone number : .

Emergency number: 145 (from abroad: +41 44 251 51 51)

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Skin irritation, Category 2 (Skin Irrit. 2, H315).  
Eye irritation, Category 2 (Eye Irrit. 2, H319).  
Skin sensitisation, Category 1 (Skin Sens. 1, H317).  
Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).  
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

#### 2.2. Label elements

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS07

GHS09

Signal Word :  
WARNING

Product identifiers :

EC 500-006-8	FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL
EC 216-823-5	2,2'-[[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE
EC 240-260-4	HEXANEDIOL DIGLYCIDYL ETHER
EC 224-518-3	4-MORPHOLINE CARBALDEHYDE

Additional labeling :

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Hazard statements :

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements - General :

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Precautionary statements - Prevention :

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/  
...

Precautionary statements - Response :

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary statements - Disposal :

P501 Dispose of contents/container to ...

### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

#### Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 9003-36-5 EC: 500-006-8 REACH: 01-2119454392-40-XXXX  FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411		25 $\leq$ x % < 50
CAS: 1675-54-3 EC: 216-823-5 REACH: 01-2119456619-26-XXXX  2,2'-[(1-METHYLETHYLIDENE)BIS(4 ,1-PHENYLENEOXYMETHYLENE)]BISOX IRANE	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411		10 $\leq$ x % < 25
CAS: 16096-31-4 EC: 240-260-4 REACH: 01-2119463471-41-XXXX  HEXANEDIOL DIGLYCIDYL ETHER	GHS07 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 3, H412		2.5 $\leq$ x % < 10
CAS: 4394-85-8 EC: 224-518-3 REACH: 01-2119987993-12-XXXX  4-MORPHOLINE CARBALDEHYDE	GHS07 Wng Skin Sens. 1, H317		0 $\leq$ x % < 1

(Full text of H-phrases: see section 16)

## SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

### 4.1. Description of first aid measures

**In the event of exposure by inhalation :**

If inhaled, move the patient to fresh air and keep warm and rest.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

Flush with large amounts of water. Remove contact lenses if the victim is. Continue to rinse. Seek medical attention if symptoms persist.

**In the event of splashes or contact with skin :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing :**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

**4.2. Most important symptoms and effects, both acute and delayed**

No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Information for the doctor :**

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to remain under medical supervision for 48 hours.

## SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

**5.1. Extinguishing media**

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet

**5.2. Special hazards arising from the substance or mixture**

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)

- carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for firefighters**

Firefighters should wear suitable protective clothing and a respirator mask with self- full operated in positive pressure mode.

Wear conform with the European standard EN 469.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Avoid any contact with the skin and eyes.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

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

Clean preferably with a detergent, do not use solvents.

**6.4. Reference to other sections**

No data available.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.  
Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

**7.1. Precautions for safe handling**

Always wash hands after handling.  
Remove and wash contaminated clothing before re-using.

**Fire prevention :**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.  
Observe precautions stated on label and also industrial safety regulations.  
Avoid skin and eye contact with this mixture.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

**Storage**

Keep out of reach of children.  
Store in original container protected from direct sunlight in a dry, cool and well ventilated area away from heat sources.  
Keep container tightly closed in a dry place.  
Store away from heat and cold.

**Packaging**

Always keep in packaging made of an identical material to the original.

**7.3. Specific end use(s)**

Use : adhesives

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

No data available.

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):**

4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)

<b>Final use:</b>	<b>Workers.</b>
Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	0.293 mg of substance/cm <sup>2</sup>

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	98 mg of substance/m <sup>3</sup>

<b>Final use:</b>	<b>Consumers.</b>
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	8 mg/kg body weight/day

Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	8 mg/kg body weight/day

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	29 mg of substance/m <sup>3</sup>

HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

<b>Final use:</b>	<b>Workers.</b>
Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	22.6 µg of substance/cm <sup>2</sup>

Exposure method:	Dermal contact.
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Potential health effects: Long term systemic effects.  
DNEL : 2.8 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 4.9 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 0.44 mg of substance/m3

**Final use: Man exposed via the environment.**

Exposure method: Ingestion.  
Potential health effects: Short term systemic effects.  
DNEL : 0.83 mg/kg body weight/day

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 0.83 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 1.7 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term local effects.  
DNEL : 13.6 µg of substance/cm2

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 1.7 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term local effects.  
DNEL : 13.6 µg of substance/cm2

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 2.9 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 2.9 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 0.27 mg of substance/m3

**2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)**

**Final use: Workers.**

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 8.3 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 8.3 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 12.3 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.

DNEL : 12.3 mg of substance/m3

**Final use:** **Man exposed via the environment.**

Exposure method: Ingestion.  
Potential health effects: Short term systemic effects.  
DNEL : 0.75 mg/kg body weight/day

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 0.75 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 3.6 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 3.6 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 0.75 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 0.75 mg of substance/m3

**FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)**

**Final use:** **Workers.**

Exposure method: Dermal contact.  
Potential health effects: Short term local effects.  
DNEL : 8.3 µg of substance/cm2

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 104.15 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 29.39 mg of substance/m3

**Final use:** **Man exposed via the environment.**

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 6.25 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 62.5 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 8.7 mg of substance/m3

**Predicted no effect concentration (PNEC):**

**4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)**

Environmental compartment: Fresh water.  
PNEC : 0.5 mg/l

Environmental compartment: Sea water.  
PNEC : 0.05 mg/l

Environmental compartment: Intermittent waste water.

PNEC : 5 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 1.85 mg/kg

Environmental compartment: Marine sediment.  
PNEC : 0.0764 mg/kg

Environmental compartment: Waste water treatment plant.  
PNEC : 2000 mg/l

HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

Environmental compartment: Fresh water.  
PNEC : 0.0115 mg/l

Environmental compartment: Sea water.  
PNEC : 1.15 µg/l

Environmental compartment: Intermittent waste water.  
PNEC : 0.115 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 0.283 mg/kg

Environmental compartment: Marine sediment.  
PNEC : 0.283 mg/kg

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

Environmental compartment: Soil.  
PNEC : 0.05 mg/kg

Environmental compartment: Fresh water.  
PNEC : 3 µg/l

Environmental compartment: Sea water.  
PNEC : 0.3 µg/l

Environmental compartment: Intermittent waste water.  
PNEC : 0.013 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 0.5 mg/kg

Environmental compartment: Marine sediment.  
PNEC : 0.5 mg/kg

Environmental compartment: Waste water treatment plant.  
PNEC : 10 mg/l

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Environmental compartment: Soil.  
PNEC : 0.237 mg/kg

Environmental compartment: Fresh water.  
PNEC : 0.003 mg/l

Environmental compartment: Sea water.  
PNEC : 0.0003 mg/l

Environmental compartment: Intermittent waste water.  
PNEC : 0.0254 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 0.294 mg/kg

Environmental compartment:	Marine sediment.
PNEC :	0.0294 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	10 mg/l

## 8.2. Exposure controls

Use only with adequate ventilation or provided with ventilation at the source.

### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN ISO 374-2

#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

#### - Respiratory protection

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

Mask with filter type A, B, E, K, P

Attention! If the protection group is insufficient.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### General information :

Physical state :	Viscous liquid.
Color:	blue

#### Important health, safety and environmental information

pH :	Not stated.
	Neutral.
Boiling point/boiling range :	Not relevant.
Flash Point Interval :	FP > 100°C.



Vapour pressure (50°C) :	Not relevant.
Density :	1.176 ± 0.02 @ 20°C
Water solubility :	Insoluble.
Viscosity :	14 000 ± 4 000 mPa.s @ 25 °C
Melting point/melting range :	Not relevant.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.
Index of refraction :	1.5400 ± 0.002 @ 25 °C

**9.2. Other information**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

May cause an allergic reaction by skin contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitiser and a respiratory tract sensitiser as well as an irritant.

Constituents with a low molecular weight irritate the eyes, mucous membranes and the skin

Repeated contact with the skin may cause irritation and hypersensitisation, possibly in combination with other epoxide compounds.

**11.1.1. Substances****Acute toxicity :**

4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)

Oral route : LD50 > 7360 mg/kg  
Species : Rat

Dermal route : LD50 > 18400 mg/kg  
OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)

HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

Oral route : LD50 = 2900 mg/kg  
Species : Rat  
OCDE Ligne directrice 401 (Toxicité aiguë par voie orale)

Dermal route : LD50 > 2000 mg/kg  
Species : Rat  
OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)

Inhalation route (Dusts/mist) : LC50 = 0.035 mg/l  
Species : Rat  
OCDE Ligne directrice 433 (Toxicité aiguë par inhalation - Fixed Concentration Procedure)

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

Oral route : LD50 = 11400 mg/kg  
Species : Rat

Dermal route : LD50 = 2000 mg/kg  
Species : Rat

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Oral route : LD50 > 2000 mg/kg  
Species : Rat

Dermal route : LD50 > 2000 mg/kg  
Species : Rabbit

#### Skin corrosion/skin irritation :

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

Species : Rabbit  
OCDE Ligne directrice 404 (Effet irritant/corrosif aigu sur la peau.)

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Species : Rabbit  
OCDE Ligne directrice 404 (Effet irritant/corrosif aigu sur la peau.)

#### Serious damage to eyes/eye irritation :

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Conjunctival redness : Average score = 0  
Species : Rabbit

Conjunctival oedema : Average score = 0  
Species : Rabbit  
OCDE Ligne directrice 405 (Effet irritant/corrosif aigu sur les yeux)

#### 11.1.2. Mixture

##### Respiratory or skin sensitisation :

Contains epoxy compounds. May cause an allergic reaction.

##### Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 1675-54-3 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

## SECTION 12 : ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

### 12.1. Toxicity

#### 12.1.1. Substances

4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)

Fish toxicity : LC50 > 500 mg/l  
Species : Leuciscus idus  
Duration of exposure : 96 h  
Autres lignes directrices

Crustacean toxicity : EC50 > 500 mg/l  
Species : Daphnia magna  
Duration of exposure : 48 h

Algae toxicity : ECr50 = 23880 mg/l  
Species : Scenedesmus subspicatus  
Duration of exposure : 72 h

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

Fish toxicity : LC50 = 1.3 mg/l  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 2.1 mg/l  
Species : Daphnia sp.  
Duration of exposure : 48 h  
OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

Algae toxicity : ECr50 > 11 mg/l  
Duration of exposure : 72 h

#### HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

Fish toxicity : LC50 = 30 mg/l  
Species : Oncorhynchus mykiss  
Duration of exposure : 96 h  
OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)

Crustacean toxicity : EC50 = 47 mg/l  
Species : Daphnia sp.  
Duration of exposure : 48 h  
OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

Aquatic plant toxicity : ECr50 = 23.1 mg/l  
Species : Others  
Duration of exposure : 48 h

#### FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Fish toxicity : LC50 = 2.54 mg/l  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 2.55 mg/l  
Species : Daphnia sp.  
Duration of exposure : 48 h  
OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

Algae toxicity : ECr50 > 1000 mg/l  
Species : Selenastrum capricornutum  
Duration of exposure : 72 h  
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

### 12.2. Persistence and degradability

#### 12.2.1. Substances

4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)  
Biodegradability : Rapidly degradable.

HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)  
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)  
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)  
Biodegradability : Non-rapidly degradable.

### 12.3. Bioaccumulative potential

#### 12.3.1. Substances

4-MORPHOLINE CARBALDEHYDE (CAS: 4394-85-8)  
Bioaccumulation : BCF < 1.9  
Species : Cyprinus carpio (Fish)  
OCDE Ligne directrice 305 (Bioconcentration: Essai dynamique chez le

poisson)

HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0.822

Bioaccumulation : BCF = 3.57

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

Octanol/water partition coefficient : log K<sub>ow</sub> = 4

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL (CAS: 9003-36-5)

Octanol/water partition coefficient : log K<sub>ow</sub> = 3.3

Bioaccumulation : BCF = 150

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

No data available.

#### 12.6. Other adverse effects

No data available.

#### German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 2 : Hazardous for water.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

#### 13.1. Waste treatment methods

Do not pour into drains or waterways.

#### Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

#### Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

#### Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

07 01 08 \* other still bottoms and reaction residues

## SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2020).

#### 14.1. UN number

3082

#### 14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol,

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane)

#### 14.3. Transport hazard class(es)

- Classification :



9

#### 14.4. Packing group

III

**14.5. Environmental hazards**

- Environmentally hazardous material :

**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

\*Not subject to this regulation if Q ≤ 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A, S-F	274 335 969	E1	Category A	-

\*Not subject to this regulation if Q ≤ 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197	E1

\*Not subject to this regulation if Q ≤ 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available.

**SECTION 15 : REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2020/217 (ATP 14)

**- Container information:**

No data available.

**- Particular provisions :**

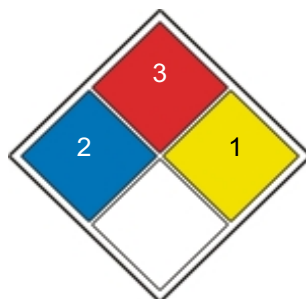
No data available.

**- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :**

WGK 2 : Hazardous for water.

**- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :**

NFPA 704, Labelling: Health=2 Inflammability=3 Instability/Reactivity=1 Specific Risk=none

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of

knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Abbreviations :**

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

UFI : Unique Formula Identifier

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.