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 : MIXFILL 80 BASE
Product code : 2100.
EPOXY RESIN
UFI : ER46-S0QA-E001-YHTW

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

Recommended use : Epoxy resin
Uses advised against : data not available

1.3. Details of the supplier of the safety data sheet

Registered company name : SICOMIN Composites.
Address : 31 avenue de la Lardiere - BP 23.13161.Chateauneuf les Martigues.France.
Telephone : +33 (0)4 42 42 30 20. Fax : +33 (0)4 42 81 29 29.
e-mail: composites@sicomin.com
Site web : http://www.sicomin.com
AUSTRALIAN Importer : Lavender CE Pty Ltd - 108 Westgate Street - Wacol, Qld, 4076 AUSTRALIA / M: 0409 892 032 / Ph: +61 7 3255 6924 / Fax: +61 7 3255 6923 / Web: www.lavender-ce.com / Email: sheading@lavender-ce.com

1.4. Emergency telephone number : .

Association/Organisation : INRS / ORFILA tél: +33(0)1.45.42.59.59 - (FRANCE) .

Other emergency numbers

Health and Safety Executive (HSE) Chemicals Regulation Directorate - Telephone: +44 151 951 3317 - USA : +1/ 800/ 424.9300 - AUSTRALIA : Emergency Poison Advice : 131 126

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).
Germ cell mutagenicity, Category 2 (Muta. 2, H341).
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 GHS08 GHS09

Signal Word :
WARNING
Product identifiers :

EC 701-263-0	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 218-259-5	DIGLYCIDYL ANILINE
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.
H341	Suspected of causing genetic defects .
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 :

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
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 - Storage :

P405	Store locked up.

Precautionary statements - Disposal :

P501	Dispose of contents/container to hazardous waste.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 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	%
EC: 701-263-0 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		50 <= x % < 100
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 <= x % < 25
CAS: 100-51-6 EC: 202-859-9 REACH: 01-2119492630-38-XXXX BENZYL ALCOHOL	GHS07 Wng Acute Tox. 4, H302 Eye Irrit. 2, H319 Acute Tox. 4, H332	[1]	2.5 <= x % < 10
CAS: 2095-06-9 EC: 218-259-5 REACH: 01-2120782027-53-XXXX DIGLYCIDYL ANILINE	GHS07, GHS09, GHS08 Wng Acute Tox. 4, H302 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411	[2]	2.5 <= x % < 10
CAS: 4394-85-8 EC: 224-518-3	GHS07 Wng		1 <= x % < 2.5

REACH: 01-2119987993-12-XXXX 4-MORPHOLINE CARBALDEHYDE	Skin Sens. 1, H317		

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

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

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.

Consult a doctor.

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.

Contact a specialist for treatment poisoning if large quantities have been ingested or inhaled.

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
- foam
- carbon dioxide (CO2)
- powder

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 (CO2)

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

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.
Avoid exposure - obtain special instructions before use.

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.

Packaging

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

7.3. Specific end use(s)

Scope advised: coating

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- Germany - AGW (BAuA - TRGS 900, 08/08/2019) :

CAS	VME :	VME :	Excess	Notes	
100-51-6		5 ppm 22 mg/m³		2 (I)	

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

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

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	0.293 mg of substance/cm2
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	98 mg of substance/m3

Final use:	**Consumers.**
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/m3

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	0.33 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	0.33 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	0.167 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1.17 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	1.17 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	0.59 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	0.167 mg/kg body weight/day
Exposure method:	Ingestion.
Potential health effects:	Short term systemic effects.
DNEL :	0.167 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	0.167 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	0.59 mg of substance/m3

BENZYL ALCOHOL (CAS: 100-51-6)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	40 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:	Short term systemic effects.
DNEL :	110 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	22 mg of substance/m3
Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	4 mg/kg body weight/day
Exposure method:	Ingestion.
Potential health effects:	Short term systemic effects.
DNEL :	20 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	4 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	20 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	5.4 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	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

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

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Environmental compartment: Soil.
PNEC : 0.048 mg/kg

Environmental compartment: Fresh water.
PNEC : 4.2 µg/l

Environmental compartment: Sea water.
PNEC : 0.42 µg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.072 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.0072 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 1 mg/l

BENZYL ALCOHOL (CAS: 100-51-6)
Environmental compartment: Soil.
PNEC : 0.456 mg/kg

Environmental compartment: Fresh water.
PNEC : 1 mg/l

Environmental compartment: Sea water.
PNEC : 0.1 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 2.3 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 5.27 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.527 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 39 mg/l

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
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 :	Paste.
Color:	grey

Important health, safety and environmental information

pH :	Not stated.
	Neutral.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	0.655 ± 0.03 @ 20 °C
Water solubility :	Insoluble.
Viscosity :	52 200 ± 10 450 mPa.s @ 25 °C
Melting point/melting range :	Not relevant.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.

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 (CO2)

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.
Cause for concern owing to the possibility that it may induce heritable mutations in the germ cells of humans.

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 OECD Guideline 402 (Acute Dermal Toxicity)

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Oral route :	LD50 = 1037 mg/kg Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 4000 mg/kg Species : Rat OECD Guideline 402 (Acute Dermal Toxicity)

BENZYL ALCOHOL (CAS: 100-51-6)

Oral route :	LD50 = 1620 mg/kg Species : Rat
Dermal route :	LD50 = 2000 mg/kg Species : Rat
Inhalation route (Dusts/mist) :	LC50 = 5 mg/l Species : Rat OECD Guideline 403 (Acute Inhalation Toxicity) Duration of exposure : 4 h

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

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
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL
Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation :

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL

Conjunctival redness :	Average score = 0 Species : Rabbit
Conjunctival oedema :	Average score = 0 Species : Rabbit OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation :

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL

Buehler Test :	Sensitiser. Species : Guinea pig

BENZYL ALCOHOL (CAS: 100-51-6)

Guinea Pig Maximisation Test (GMPT) :	Non-sensitiser. Species : Guinea pig OECD Guideline 406 (Skin Sensitisation)

DIGLYCIDYL ANILINE (CAS: 2095-06-9)
May cause an allergic skin reaction.

Local lymph node stimulation test :	Sensitiser. Species : Mouse OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Guinea Pig Maximisation Test (GMPT) :	Sensitiser. Species : Guinea pig

Germ cell mutagenicity :

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Mutagenesis (in vitro) :	Positive. Species : Bacteria OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ames test (in vitro) :	Positive. With or without metabolic activation.

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL

Mutagenesis (in vivo) :	Negative. Species : Mouse Species : Bacteria
Ames test (in vitro) :	Positive.

Carcinogenicity :

BENZYL ALCOHOL (CAS: 100-51-6)

Carcinogenicity Test :	Negative. No carcinogenic effect. Species : Mouse OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL

Carcinogenicity Test :	Negative. No carcinogenic effect. Species : Mouse Other guideline

Reproductive toxicant :

DIGLYCIDYL ANILINE (CAS: 2095-06-9)
No toxic effect for reproduction

Study on fertility :	Species : Rat
Study on development :	Species : Rat OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL
No toxic effect for reproduction

Study on development :	Species : Rabbit Other guideline

Specific target organ systemic toxicity - repeated exposure :

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Oral route :	C = 100 mg/kg bodyweight/day Species : Rat Duration of exposure : 28 days OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

BENZYL ALCOHOL (CAS: 100-51-6)

Oral route :	C = 400 mg/kg bodyweight/day

Species : Rat
Duration of exposure : 90 days

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 7631-86-9 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
CAS 108-94-1 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
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 Other guideline
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

DIGLYCIDYL ANILINE (CAS: 2095-06-9)

Fish toxicity :	LC50 = 4.2 mg/l Species : Cyprinus carpio Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 18 mg/l Species : Daphnia magna Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 = 15 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)

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 OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 > 11 mg/l Duration of exposure : 72 h

BENZYL ALCOHOL (CAS: 100-51-6)

Fish toxicity :	LC50 = 460 mg/l Species : Pimephales promelas

Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 230 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

NOEC = 51 mg/l
Species : Daphnia magna
Duration of exposure : 21 days
OECD Guideline 211 (Daphnia magna Reproduction Test)

Algae toxicity : ECr50 = 770 mg/l
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC = 310 mg/l
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL

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
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity : ECr50 > 1000 mg/l
Species : Selenastrum capricornutum
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

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.

DIGLYCIDYL ANILINE (CAS: 2095-06-9)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

BENZYL ALCOHOL (CAS: 100-51-6)
Biodegradability : Rapidly degradable.

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
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)
OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

BENZYL ALCOHOL (CAS: 100-51-6)
Octanol/water partition coefficient : log Koe = 1.1

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)
Octanol/water partition coefficient : log Koe <= 3.78

Bioaccumulation : BCF < 100.

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL
Octanol/water partition coefficient : log Koe = 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 3 : Extremely 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

3077

14.2. UN proper shipping name

UN3077=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, 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	M7	III	9	90	5 kg	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 kg	F-A, S-F	274 335 966 967 969	E1	Category A SW23	-

*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	956	400 kg	956	400 kg	A97 A158 A179 A197	E1
	9	-	III	Y956	30 kg G	-	-	A97 A158 A179 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. 2020/1182 (ATP 15)

- Container information:

Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).

- Particular provisions :

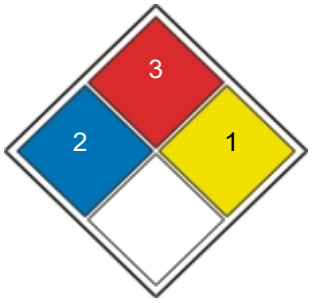
No data available.

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

WGK 3 : Extremely 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 :

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects .
H411	Toxic to aquatic life with long lasting effects.

Abbreviations :

DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
CMR: Carcinogenic, mutagenic or reprotoxic.
UFI : Unique Formula Identifier
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TMP : French Occupational Illness table
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
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 : Wassergefahrdungsklasse (Water Hazard Class).
GHS07 : Exclamation mark
GHS08 : Health hazard
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.