

SR SURF CLEAR EVO, ECF ART, ECF CLEAR



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 SURF CLEAR EVO, ECF CLEAR, ECF ART
Product code : 1973.
EPOXY RESIN

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

Use : binder

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 1A (Skin Sens. 1A, 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 500-033-5

PRODUIT DE REACTION: BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES
EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700)
BUTANEDIOLDIGLYCIDYL ETHER

EC 219-371-7

Additional labeling :

EUH205

Contains epoxy constituents. May produce an allergic reaction.

Hazard statements :

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

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H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P302 + P352	IF ON SKIN: Wash with plenty of water/...
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 satisfies 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: 25068-38-6 EC: 500-033-5 REACH: 01-2119456619-26-XXXX PRODUIT DE REACTION:BISPHENOL-A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700)	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411		50 \leq x % < 100
CAS: 28064-14-4 REACTION PRODUCT OF PHENOL NOVOLAC AND EPICHLOROHYDRIN	Aquatic Chronic 4, H413		2.5 \leq x % < 10
CAS: 2425-79-8 EC: 219-371-7 BUTANEDIOLDIGLYCIDYL ETHER	GHS07 Wng Acute Tox. 4, H312 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Eye Irrit. 2, H319 Acute Tox. 4, H332		2.5 \leq x % < 10

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 case of inhalation of vapors by thermal decomposition: Remove patient to fresh air and keep warm and at 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.

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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

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

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.

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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 container tightly closed in a dry place.
Store in original container protected from direct sunlight in a dry, cool and well ventilated area away from heat sources.

Packaging

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

7.3. Specific end use(s)

Use : Surfing, windsurfing,...

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

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

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Short term systemic effects.
8.3 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
8.3 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
12.3 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
12.3 mg of substance/m3

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Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Ingestion.
Short term systemic effects.
0.75 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Ingestion.
Long term systemic effects.
0.75 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Short term systemic effects.
3.6 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
3.6 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
0.75 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
0.75 mg of substance/m3

Predicted no effect concentration (PNEC):

PRODUIT DE REACTION: BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Environmental compartment:
PNEC : Soil.
0.05 mg/kg

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

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

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

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

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

Environmental compartment:
PNEC : Waste water treatment plant.
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

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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 EN374.

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 EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

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

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 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:

purple

Important health, safety and environmental information

pH :

Not relevant.

Boiling point/boiling range :

Not relevant.

Flash Point Interval :

FP > 100°C.

Vapour pressure (50°C) :

Not relevant.

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Density :	1.18 ± 0.02 g/cm ³ @ 20°C
Water solubility :	Insoluble.
Viscosity :	~ 1 600 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.

11.1.1. Substances

Acute toxicity :

BUTANEDIOLDIGLYCIDYL ETHER (CAS: 2425-79-8)

Oral route : LD50 = 1134 mg/kg
Species : Rat

Dermal route : LD50 = 1130 mg/kg
Species : Rabbit

Inhalation route (Vapours) : LC50 = 10 mg/l

PRODUIT DE REACTION: BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

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

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Dermal route : LD50 > 2000 mg/kg
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/skin irritation :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

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
OECD Guideline 406 (Skin Sensitisation)

Buehler Test : Sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Ames test (in vitro) : Positive.
With or without metabolic activation.
Species : S. typhimurium TA1535

Carcinogenicity :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

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

Reproductive toxicant :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

No toxic effect for reproduction

Study on development : Species : Rat
OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

11.1.2. Mixture

Respiratory or skin sensitisation :

Contains epoxy compounds. May cause an allergic reaction.

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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

BUTANEDIOLDIGLYCIDYL ETHER (CAS: 2425-79-8)

Fish toxicity : LC50 = 13 mg/l
Species : *Oryzias latipes*
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 223 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

Aquatic plant toxicity : ECr50 > 93 mg/l
Species : Others
Duration of exposure : 72 h

REACTION PRODUCT OF PHENOL NOVOLAC AND EPICHLOROHYDRIN (CAS: 28064-14-4)

Fish toxicity : Species : *Leuciscus idus*
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : Species : *Daphnia magna*
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Fish toxicity : LC50 = 1.3 mg/l
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 2.1 mg/l
Duration of exposure : 48 h
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

NOEC = 0.3 mg/l
Duration of exposure : 21 days
OECD Guideline 211 (*Daphnia magna* Reproduction Test)

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

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

BUTANEDIOLDIGLYCIDYL ETHER (CAS: 2425-79-8)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

REACTION PRODUCT OF PHENOL NOVOLAC AND EPICHLOROHYDRIN (CAS: 28064-14-4)

SR SURF CLEAR EVO - 1973

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

BUTANEDIOLDIGLYCIDYL ETHER (CAS: 2425-79-8)

Octanol/water partition coefficient : log K_{ow} = 0.01

Bioaccumulation : BCF = 3.162

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Octanol/water partition coefficient : log K_{ow} = 3

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) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : 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.

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 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

3082

14.2. UN proper shipping name

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

(produit de reaction:bisphenol- a-sur-epichlorhydrine. resines epoxydiques(poids moleculaire moyen<700), reaction product of phenol novolac and epichlorohydrin)

SR SURF CLEAR EVO - 1973

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	E

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
	9	-	III	5 L	F-A,S-F	274 335 969	E1

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.

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. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

No data available.

- Particular provisions :

No data available.

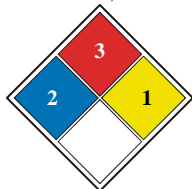
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- German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : 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 :

H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Abbreviations :

- DNEL : Derived No-Effect Level
- PNEC : Predicted No-Effect Concentration
- 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.

SD EVO MEDIUM - 2090



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 : SD EVO MEDIUM
Product code : 2090.
Hardener for epoxy resin

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

Hardener

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>

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

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).
Acute dermal toxicity, Category 4 (Acute Tox. 4, H312).
Skin corrosion, Category 1A (Skin Corr. 1A, H314).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).
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



GHS05

Signal Word :

DANGER

Product identifiers :

EC 220-666-8

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE

EC 219-941-5

1,3-CYCLOHEXYLENEBIS (METHYLAMINE)

Hazard statements :

H302 + H312

Harmful if swallowed or in contact with skin.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

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H412	Harmful to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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/...

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 satisfies 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: 2855-13-2 EC: 220-666-8 REACH: 01-2119514687-32-XXXX 3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCL HEXYLAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412		50 \leq x % < 100
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		10 \leq x % < 25
CAS: 2579-20-6 EC: 219-941-5 REACH: 2119543741-41-XXXX 1,3-CYCLOHEXYLENEBIS (METHYLAMINE)	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412		2.5 \leq x % < 10
CAS: 39423-51-3 EC: 500-105-6 REACH: 01-2119556886-20-XXXX POLYALKYL AMINES	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411		2.5 \leq x % < 10

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.

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In the event of splashes or contact with eyes :

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

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

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.

Remove any soiled or splashed clothing immediately.

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, administer activated medical charcoal and consult a doctor.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show 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
- 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)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

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.

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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

Neutralise with an acidic decontaminant.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

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.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

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.

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 away from food and drink, including those for animals.

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)

Use : Surfing, windsurfing,...

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

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

POLYALKYL AMINES (CAS: 39423-51-3)

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Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
1.6 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
14 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Dermal contact.
Long term systemic effects.
0.8 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
3.48 mg of substance/m³

BENZYL ALCOHOL (CAS: 100-51-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Short term systemic effects.
47 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
9.5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
450 mg of substance/m³

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
90 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Short term systemic effects.
25 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Ingestion.
Long term systemic effects.
5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Short term systemic effects.
28.5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
5.7 mg/kg body weight/day

Exposure method:

Inhalation.

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Potential health effects: Short term systemic effects.
DNEL : 40.55 mg of substance/m3

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 8.11 mg of substance/m3

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Final use: **Workers.**
Exposure method: Inhalation.
Potential health effects: Short term systemic effects.
DNEL : 20.1 mg of substance/m3

Exposure method: Inhalation.
Potential health effects: Short term local effects.
DNEL : 20.1 mg of substance/m3

Final use: **Man exposed via the environment.**
Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 0.526 mg/kg body weight/day

Predicted no effect concentration (PNEC):

POLYALKYL AMINES (CAS: 39423-51-3)

Environmental compartment: Soil.
PNEC : 0.002 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0044 mg/l

Environmental compartment: Sea water.
PNEC : 0.00044 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.044 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.02 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.002 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 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.

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PNEC :	0.1 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 2.3 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 5.27 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.527 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 39 mg/l

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Environmental compartment: PNEC :	Soil. 1.121 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.06 mg/l
Environmental compartment: PNEC :	Sea water. 0.006 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 0.23 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 5.784 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.578 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 3.18 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.

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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 EN374.

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 EN374

- 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 to prevent skin contact.

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

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

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 : Fluid liquid.
Color: colorless to pale yellow

Important health, safety and environmental information

pH : Not stated.
Slightly basic.

Boiling point/boiling range : Not relevant.

Flash Point Interval : PE > 100°C.

Vapour pressure (50°C) : Not relevant.

Density : = 1

Water solubility : Soluble.

Melting point/melting range : Not relevant.

Self-ignition temperature : Not relevant.

Decomposition point/decomposition range : Not relevant.

9.2. Other information

No data available.

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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

Avoid :

- humidity

10.5. Incompatible materials

Keep away from :

- strong oxidising agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
 - carbon dioxide (CO₂)
 - nitrogen oxide (NO)
 - nitrogen dioxide (NO₂)
-

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Harmful if swallowed.

Harmful in contact with skin.

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

POLYALKYL AMINES (CAS: 39423-51-3)

Oral route : LD50 = 550 mg/kg
Species : Rat

Dermal route : LD50 > 1000 mg/kg
Species : Rat

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)

Oral route : LD50 = 700 mg/kg
Species : Rat

Dermal route : LD50 = 1700 mg/kg
Species : Rat

BENZYL ALCOHOL (CAS: 100-51-6)

Oral route : LD50 = 1620 mg/kg
Species : Rat

Dermal route : LD50 = 1260 mg/kg

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Species : Rabbit

Inhalation route (n/a) : LC50 = 4178 mg/l
Species : Rat

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Oral route : LD50 = 1030 mg/kg
Species : Rat

Dermal route : LD50 > 2000 mg/kg
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (n/a) : LC50 > 5.01 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/skin irritation :

POLYALKYL AMINES (CAS: 39423-51-3)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Species : Rabbit
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

BENZYL ALCOHOL (CAS: 100-51-6)

Mutagenesis (in vivo) : Negative.
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Positive.
Species : Bacteria
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity :

BENZYL ALCOHOL (CAS: 100-51-6)

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

Reproductive toxicant :

POLYALKYL AMINES (CAS: 39423-51-3)

Study on development : Species : Rat
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Specific target organ systemic toxicity - repeated exposure :

POLYALKYL AMINES (CAS: 39423-51-3)

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Dermal route : C > 160 mg/kg bodyweight/jour
Duration of exposure : 90 days
OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

Harmful 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

POLYALKYL AMINES (CAS: 39423-51-3)

Algae toxicity : EC₅₀ = 1 mg/l
Duration of exposure : 72 h

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Fish toxicity : LC₅₀ = 110 mg/l
Species : *Leuciscus idus*
Duration of exposure : 96 h

Crustacean toxicity : EC₅₀ = 23 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

NOEC = 3 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

Algae toxicity : EC₅₀ > 50 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h

NOEC = 1.5 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h
Other guideline

BENZYL ALCOHOL (CAS: 100-51-6)

Fish toxicity : LC₅₀ = 460 mg/l
Species : *Pimephales promelas*
Duration of exposure : 96 h

Crustacean toxicity : EC₅₀ = 400 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

NOEC = 51 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days

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Algae toxicity : OECD Guideline 211 (Daphnia magna Reproduction Test)
NOEC = 310 mg/l
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

POLYALKYL AMINES (CAS: 39423-51-3)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

BENZYL ALCOHOL (CAS: 100-51-6)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)

Octanol/water partition coefficient : log K_{ow} = 0.783

BENZYL ALCOHOL (CAS: 100-51-6)

Octanol/water partition coefficient : log K_{ow} = 1.1

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Octanol/water partition coefficient : log K_{ow} = 0.99
OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

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) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly 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.

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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.

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 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

2735

14.2. UN proper shipping name

UN2735=AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(1,3-cyclohexylenebis (methylamine), 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine)

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

II

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C7	II	8	80	1 L	274	E2	2	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	8	-	II	1 L	F-A,S-B	274	E2

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	II	851	1 L	855	30 L	A3 A803	E2
	8	-	II	Y840	0.5 L	-	-	A3 A803	E2

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.

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. 487/2013.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

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- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

No data available.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly 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=3 Inflammability=1 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.
H302 + H312	Harmful if swallowed or in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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

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).

GHS05 : Corrosion

GHS07 : Exclamation mark

SD EVO MEDIUM - 2090

PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.

SD EVO FAST - 2039



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 : SD EVO FAST
Product code : 2039.
HARDENER

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

Stratification

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>

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

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).
Acute dermal toxicity, Category 4 (Acute Tox. 4, H312).
Skin corrosion, Category 1A (Skin Corr. 1A, H314).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).
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



GHS05

Signal Word :

DANGER

Product identifiers :

EC 220-666-8

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE

EC 219-941-5

1,3-CYCLOHEXYLENEBIS (METHYLAMINE)

Hazard statements :

H302 + H312

Harmful if swallowed or in contact with skin.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

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H412	Harmful to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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/...

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 satisfies 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: 2855-13-2 EC: 220-666-8 REACH: 01-2119514687-32-XXXX 3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCL HEXYLAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412		25 \leq x % < 50
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		25 \leq x % < 50
CAS: 2579-20-6 EC: 219-941-5 REACH: 2119543741-41-XXXX 1,3-CYCLOHEXYLENEBIS (METHYLAMINE)	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412		10 \leq x % < 25
CAS: 39423-51-3 EC: 500-105-6 REACH: 01-2119556886-20-XXXX POLYALKYL AMINES	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411		1 \leq x % < 2.5

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.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

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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.

Remove any soiled or splashed clothing immediately.

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, administer activated medical charcoal and consult a doctor.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show 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
- powder

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)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

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).

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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

Neutralise with an acidic decontaminant.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

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.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

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.

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 away from food and drink, including those for animals.

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)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

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

POLYALKYL AMINES (CAS: 39423-51-3)

Final use:

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

Workers.

Dermal contact.

Long term systemic effects.

1.6 mg/kg body weight/day

Inhalation.

Long term systemic effects.

14 mg of substance/m³

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Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Dermal contact.
Long term systemic effects.
0.8 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
3.48 mg of substance/m3

BENZYL ALCOHOL (CAS: 100-51-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Short term systemic effects.
47 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
9.5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
450 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
90 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Short term systemic effects.
25 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Ingestion.
Long term systemic effects.
5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Short term systemic effects.
28.5 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
5.7 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
40.55 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
8.11 mg of substance/m3

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

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Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Short term systemic effects.
20.1 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term local effects.
20.1 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Ingestion.
Long term systemic effects.
0.526 mg/kg body weight/day

Predicted no effect concentration (PNEC):

POLYALKYL AMINES (CAS: 39423-51-3)

Environmental compartment:
PNEC :

Soil.
0.002 mg/kg

Environmental compartment:
PNEC :

Fresh water.
0.0044 mg/l

Environmental compartment:
PNEC :

Sea water.
0.00044 mg/l

Environmental compartment:
PNEC :

Intermittent waste water.
0.044 mg/l

Environmental compartment:
PNEC :

Fresh water sediment.
0.02 mg/kg

Environmental compartment:
PNEC :

Marine sediment.
0.002 mg/kg

Environmental compartment:
PNEC :

Waste water treatment plant.
10 mg/l

BENZYL ALCOHOL (CAS: 100-51-6)

Environmental compartment:
PNEC :

Soil.
0.456 mg/kg

Environmental compartment:
PNEC :

Fresh water.
1 mg/l

Environmental compartment:
PNEC :

Sea water.
0.1 mg/l

Environmental compartment:
PNEC :

Intermittent waste water.
2.3 mg/l

Environmental compartment:
PNEC :

Fresh water sediment.
5.27 mg/kg

Environmental compartment:

Marine sediment.

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PNEC : 0.527 mg/kg
Environmental compartment: Waste water treatment plant.
PNEC : 39 mg/l

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Environmental compartment: Soil.
PNEC : 1.121 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.06 mg/l

Environmental compartment: Sea water.
PNEC : 0.006 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.23 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 5.784 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.578 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 3.18 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 EN374.

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.

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Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- 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 to prevent skin contact.

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

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

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 :

Fluid liquid.

Color:

colorless to pale yellow

Important health, safety and environmental information

pH :

Not stated.

Slightly basic.

Boiling point/boiling range :

Not relevant.

Flash Point Interval :

PE > 100°C.

Vapour pressure (50°C) :

Not relevant.

Density :

> 1

Water solubility :

Soluble.

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

Avoid :

- humidity

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10.5. Incompatible materials

Keep away from :

- strong oxidising agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Harmful if swallowed.

Harmful in contact with skin.

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

POLYALKYL AMINES (CAS: 39423-51-3)

Oral route : LD50 = 550 mg/kg
Species : Rat

Dermal route : LD50 > 1000 mg/kg
Species : Rat

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)

Oral route : LD50 = 700 mg/kg
Species : Rat

Dermal route : LD50 = 1700 mg/kg
Species : Rat

BENZYL ALCOHOL (CAS: 100-51-6)

Oral route : LD50 = 1620 mg/kg
Species : Rat

Dermal route : LD50 = 1260 mg/kg
Species : Rabbit

Inhalation route (n/a) : LC50 = 4178 mg/l
Species : Rat

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Oral route : LD50 = 1030 mg/kg
Species : Rat

Dermal route : LD50 > 2000 mg/kg
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

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Inhalation route (n/a) : LC50 > 5.01 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/skin irritation :

POLYALKYL AMINES (CAS: 39423-51-3)
Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)
Species : Rabbit
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

BENZYL ALCOHOL (CAS: 100-51-6)
Mutagenesis (in vivo) : Negative.
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Mutagenesis (in vitro) : Positive.
Species : Bacteria
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity :

BENZYL ALCOHOL (CAS: 100-51-6)
Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Rat
OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicant :

POLYALKYL AMINES (CAS: 39423-51-3)
Study on development : Species : Rat
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Specific target organ systemic toxicity - repeated exposure :

POLYALKYL AMINES (CAS: 39423-51-3)
Dermal route : C > 160 mg/kg bodyweight/jour
Duration of exposure : 90 days
OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.
The product must not be allowed to run into drains or waterways.

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12.1. Toxicity

12.1.1. Substances

POLYALKYL AMINES (CAS: 39423-51-3)

Algae toxicity : EC₅₀ = 1 mg/l
Duration of exposure : 72 h

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)

Fish toxicity : LC₅₀ = 110 mg/l
Species : *Leuciscus idus*
Duration of exposure : 96 h

Crustacean toxicity : EC₅₀ = 23 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

NOEC = 3 mg/l
Species : *Daphnia magna*
Duration of exposure : 21 days
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

Algae toxicity : EC₅₀ > 50 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h

NOEC = 1.5 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h
Other guideline

BENZYL ALCOHOL (CAS: 100-51-6)

Fish toxicity : LC₅₀ = 460 mg/l
Species : *Pimephales promelas*
Duration of exposure : 96 h

Crustacean toxicity : EC₅₀ = 400 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

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

Algae toxicity : NOEC = 310 mg/l
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

POLYALKYL AMINES (CAS: 39423-51-3)

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Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

BENZYL ALCOHOL (CAS: 100-51-6)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

1,3-CYCLOHEXYLENEBIS (METHYLAMINE) (CAS: 2579-20-6)
Octanol/water partition coefficient : log K_{ow} = 0.783

BENZYL ALCOHOL (CAS: 100-51-6)
Octanol/water partition coefficient : log K_{ow} = 1.1

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)
Octanol/water partition coefficient : log K_{ow} = 0.99
OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

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) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly 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.

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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 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

2735

14.2. UN proper shipping name

UN2735=AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(1,3-cyclohexylenebis (methylamine), 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine)

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

II

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C7	II	8	80	1 L	274	E2	2	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	8	-	II	1 L	F-A,S-B	274	E2

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	II	851	1 L	855	30 L	A3 A803	E2
	8	-	II	Y840	0.5 L	-	-	A3 A803	E2

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.

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. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

No data available.

- Particular provisions :

No data available.

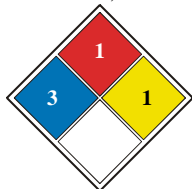
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- German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly 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=3 Inflammability=1 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.
H302 + H312	Harmful if swallowed or in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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

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).

GHS05 : Corrosion

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.