SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : KTA 311
Product code : 1851.
Hardener for epoxy resin
UFI : CSS5-00CH-600P-AU7N

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

Recommended use : Hardener
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.
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 corrosion, Category 1B (Skin Corr. 1B, H314).
Serious eye damage, Category 1 (Eye Dam. 1, H318).
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 :



GHS05 GHS07

Signal Word :
DANGER
Product identifiers :

EC 618-561-0	REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA
EC 220-666-8	3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE

Hazard statements :

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

H412	Harmful 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 :

P260	Do not breathe 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 :

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/...
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.
The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 9046-10-0 EC: 618-561-0 REACH: 01-2119557899-12-XXXX REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA	GHS05 Dgr Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412		25 <= x % < 50
CAS: 2855-13-2 EC: 220-666-8 REACH: 01-2119514687-32-XXXX 3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412		2.5 <= x % < 10
CAS: 39423-51-3 EC: 500-105-6 REACH: 01-2119556886-20-XXXX PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411		2.5 <= x % < 10
CAS: 7631-86-9 EC: 231-545-4 REACH: 01-2119379499-16-XXXX SILICON DIOXIDE		[1]	1 <= x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE

CAS: 9046-10-0 EC: 618-561-0 REACH: 01-2119557899-12-XXXX REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA		dermal: ATE = 2979.7 mg/kg BW oral: ATE = 2885.3 mg/kg BW
CAS: 2855-13-2 EC: 220-666-8 REACH: 01-2119514687-32-XXXX 3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE		oral: ATE = 1030 mg/kg BW
CAS: 39423-51-3 EC: 500-105-6 REACH: 01-2119556886-20-XXXX PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA		oral: ATE = 550 mg/kg BW

Information on ingredients :

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

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

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.

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 aera 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

- 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.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

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

6.2. Environmental precautions

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

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

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 out of reach of children.

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

Keep container tightly closed in a dry place.

Store away from heat and cold.

Packaging

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

7.3. Specific end use(s)

Scope advised: Stratification

Recommended application area: Production of prepregs.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes	
7631-86-9		4E mg/m³			

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

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.6 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	14 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	0.8 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	3.48 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

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2.5 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	0.623 mg of substance/cm2

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	0.04 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.25 mg/kg body weight/day

Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	0.311 mg of substance/cm2

Predicted no effect concentration (PNEC):

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (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

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

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Environmental compartment:	Soil.
PNEC :	0.0176 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.015 mg/l
Environmental compartment:	Sea water.
PNEC :	0.0143 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.15 mg/l
Environmental compartment:	Fresh water sediment.

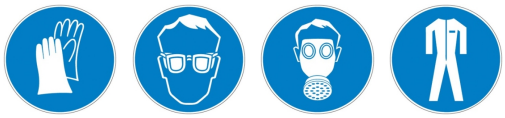
PNEC :	0.132 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.125 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	7.5 mg/l

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)

- 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.
Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained 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

Physical state

Physical state :	Viscous liquid.

Colour

Color :	white

Odour

Odour threshold :	Not stated.

Melting point

Melting point/melting range :	Not relevant.

Freezing point

Freezing point / Freezing range :	Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range :	Not relevant.

Flammability

Flammability (solid, gas) :	Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.

Flash point

Flash Point Interval :	FP > 100°C.

Auto-ignition temperature

Self-ignition temperature :	Not relevant.

Decomposition temperature

Decomposition point/decomposition range :	Not relevant.

pH

pH (aqueous solution) :	Not stated.
pH :	Not relevant.

Kinematic viscosity

Viscosity :	14 750 ± 2 950 mPa.s @ 25°C

Solubility

Water solubility :	Insoluble.
Fat solubility :	Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.

Vapour pressure

Vapour pressure (50°C) :	Not relevant.

Density and/or relative density

Density :	1.128 ± 0.02 @ 20 °C

Relative vapour density

Vapour density :	Not stated.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

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 :
- contact with air
- 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 (CO_2)
- nitrogen oxide (NO)
- nitrogen dioxide (NO_2)

SECTION 11 : TOXICOLOGICAL INFORMATION

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

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

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 :

SILICON DIOXIDE (CAS: 7631-86-9)

Oral route :	LD50 > 5000 mg/kg Species : Rat OCDE Ligne directrice 401 (Toxicité aiguë par voie orale)
Dermal route :	LD50 > 5000 mg/kg Species : Rabbit Autres lignes directrices

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)

Oral route :	LD50 = 550 mg/kg Species : Rat OCDE Ligne directrice 425 (Toxicité aiguë par voie orale - Méthode de l'ajustement des doses)
Dermal route :	LD50 > 1000 mg/kg Species : Rat OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)

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 OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)
Inhalation route (Dusts/mist) :	LC50 > 5.01 mg/l Species : Rat OCDE Ligne directrice 403 (Toxicité aiguë par inhalation)

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Oral route :	LD50 = 2885.3 mg/kg Species : Rat
Dermal route :	LD50 = 2979.7 mg/kg Species : Rabbit

Skin corrosion/skin irritation :

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)

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

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

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Corrosivity : Causes severe skin burns.

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

Respiratory or skin sensitisation :

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)
Species : Rabbit
OCDE Ligne directrice 406 (Sensibilisation de la peau)

Germ cell mutagenicity :

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)
Mutagenesis (in vivo) : Negative.
OCDE Ligne directrice 474 (Le test de micronoyaux sur les érythrocytes de mammifères)

OCDE Ligne directrice 471 (Essai de mutation réverse sur des bactéries)

Ames test (in vitro) : Negative.
With or without metabolic activation.

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)
No mutagenic effect.

Reproductive toxicant :

SILICON DIOXIDE (CAS: 7631-86-9)
No toxic effect for reproduction

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)
Study on development : Species : Rat
OCDE Ligne directrice 421 (Essai de dépistage de la toxicité pour la reproduction et le développement)

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)
No toxic effect for reproduction
Study on development : Species : Rat
OCDE Ligne directrice 421 (Essai de dépistage de la toxicité pour la reproduction et le développement)

Specific target organ systemic toxicity - repeated exposure :

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)
Dermal route : C > 160 mg/kg poids corporel/jour
Duration of exposure : 90 jours
OCDE Ligne directrice 411 (Toxicité cutanée subchronique: 90 jours)

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)
Oral route : C = 239 mg/kg poids corporel/jour
Species : Rat
Duration of exposure : 28 jours
OCDE Ligne directrice 407 (Toxicité orale à doses répétées - pendant 28 jours sur les rongeurs)

Dermal route : C = 250 mg/kg poids corporel/jour
Duration of exposure : 90 jours
OCDE Ligne directrice 411 (Toxicité cutanée subchronique: 90 jours)

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

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.

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

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)

Fish toxicity :	LC50 > 100 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)
Crustacean toxicity :	EC50 = 13 mg/l Species : Daphnia magna Duration of exposure : 48 h OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)
Algae toxicity :	ECr50 = 4.4 mg/l Species : Selenastrum capricornutum Duration of exposure : 72 h OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

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 OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate) NOEC = 3 mg/l Species : Daphnia magna Duration of exposure : 21 jours OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)
Algae toxicity :	ECr50 > 50 mg/l Species : Desmodesmus subspicatus Duration of exposure : 72 h NOEC = 1.5 mg/l Species : Desmodesmus subspicatus Duration of exposure : 72 h Autres lignes directrices

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Fish toxicity :	LC50 > 15 mg/l Species : Others Duration of exposure : 96 h OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)
Crustacean toxicity :	EC50 = 80 mg/l Species : Others Duration of exposure : 48 h OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

SILICON DIOXIDE (CAS: 7631-86-9)

Fish toxicity :	LC50 > 10000 mg/l Species : Brachydanio rerio Duration of exposure : 96 h OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)
Crustacean toxicity :	EC50 > 1000 mg/l Species : Daphnia magna

Duration of exposure : 24 h
OCDE Ligne directrice 202 (Daphnia sp., essai d'immobilisation immédiate)

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

SILICON DIOXIDE (CAS: 7631-86-9)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)
Biodegradability : Non-rapidly degradable.

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.

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTION PRODUCTS WITH AMMONIA (CAS: 39423-51-3)
Octanol/water partition coefficient : log Koe = -1.13

3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE (CAS: 2855-13-2)
Octanol/water partition coefficient : log Koe = 0.99
OCDE Ligne directrice 107 (Coefficient de partage (n-octanol/eau): méthode par agitation en flacon)

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1.2-DIOL WITH AMMONIA (CAS: 9046-10-0)
Octanol/water partition coefficient : log Koe = 1.34

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :

WGK 2 : Hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

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

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.
Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.
Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.
Give to a certified disposal contractor.

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

07 01 08 * other still bottoms and reaction residues

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

14.1. UN number or ID number

2735

14.2. UN proper shipping name

UN2735=POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(3-aminomethyl-3,5,5-trimethyl-cyclohexylamine, reaction products of di-, tri and tetra-propoxylated propane-1.2-diol with ammonia)

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

III

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	III	8	80	5 L	274	E1	3	E
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	8	-	III	5 L	F-A. S-B	223 274	E1	Category A	SGG18 SG35	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	8	-	III	852	5 L	856	60 L	A3 A803	E1	
	8	-	III	Y841	1 L	-	-	A3 A803	E1	

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. Maritime transport in bulk according to IMO instruments

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. 2022/692 (ATP 18)

- Container information:

Packaging to be fitted with child-resistant fastenings (see EC Regulation No. 1272/2008, Annex II, Part 3).
Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).
The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :

WGK 2 : Hazardous for water.

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.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
NOEC : The concentration with no observed effect.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight
DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
UFI : Unique formulation identifier.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
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).
GHS05 : Corrosion
GHS07 : Exclamation mark
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.

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