

Name : SD 8454 - 748



## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

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

#### 1.1. Product identifier

Product name : SD 8454

Product code : 748.

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 Lardière - BP 23.13161.Châteauneuf 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 : ORFILA tél: +33(0)1.45.42.59.59.

### 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).

Skin corrosion, Category 1B (Skin Corr. 1B, H314).

Skin sensitisation, Category 1A (Skin Sens. 1A, H317).

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

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.

##### In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Acute oral toxicity: harmful (Xn, R 22).

Acute cutaneous toxicity: harmful (Xn, R 21).

Acute inhalation toxicity: harmful (Xn, R 20).

Corrosive (C, R 34).

Skin sensitisation (Xi, R 43).

Category 3 mutagen (Xn, R 68 Muta. Cat. 3).

Aquatic environmental hazard, chronic toxicity: harmful (R 52/53).

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



GHS08

Signal Word :

DANGER

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Product identifiers :

EC 618-561-0 DIAMINO POLYPROPYLENE ETHER  
612-067-00-9 3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE  
EC 500-137-0 FORMALDEHYDE, POLYMER WITH  
EC 603-894-6 COPOLYMER OF BENZENAMINE AND FORMALDEHYDE, HYDROGENATED  
EC 216-032-5 META XYLENEDIAMINE  
EC 500-101-4 PHENOL, 4,4'- (1-METHYLETHYLIDENE) BIS-, POLYMER WITH  
5-AMINO-1,3,3-TRIMETHYLCYCLOHEXANEMETHANAMINE AND (CHLOROMETHYL)  
OXIRANE  
604-001-00-2 PHENOL  
EC 203-950-6 3,6-DIAZAOCTANETHYLENEDIAMIN

Additional labeling :

Hazard statements :

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H341 Suspected of causing genetic defects .  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P201 Obtain special instructions before use.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.

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/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/...  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
P363 Wash contaminated clothing before reuse.

2.3. Other hazards

The mixture contains 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	67/548/EEC	Note	%
CAS: 9046-10-0 EC: 618-561-0 REACH: 01-2119557899-12-XXXX DIAMINO POLYPROPYLENE ETHER	GHS05, GHS09 Dgr Skin Corr. 1C, H314 Aquatic Chronic 2, H411	C C;R34 Xi;R41 R52/53		10 <= x % < 25
CAS: 100-51-6 EC: 202-859-9 REACH: 01-2119492630-38-XXXX BENZYL ALCOHOL	GHS07 Wng Acute Tox. 4, H302 Acute Tox. 4, H332	Xn Xn;R20/22		10 <= x % < 25

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INDEX: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8  3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCL OHEXYLAMINE	GHS05, GHS07 Dgr Acute Tox. 4, H312 Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	C C;R34 Xn;R21/22 Xi;R43 R52/53		10 <= x % < 25
CAS: 57214-10-5 EC: 500-137-0  FORMALDEHYDE, POLYMER WITH	GHS05, GHS07 Dgr Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	C C;R34 Xi;R43 R52/53		10 <= x % < 25
CAS: 135108-88-2 EC: 603-894-6 REACH: 05-2114471842-44-XXXX  COPOLYMER OF BENZENAMINE AND FORMALDEHYDE, HYDROGENATED	GHS07, GHS05, GHS08 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 3, H412	C C;R34 Xn;R48/22-R22 Xi;R43 R52/53		2.5 <= x % < 10
CAS: 1477-55-0 EC: 216-032-5 REACH: 01-2119480150-50-XXXX  META XYLENEDIAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Acute Tox. 4, H332 Aquatic Chronic 3, H412 EUH:071	C C;R34 Xn;R20/22 Xi;R43 R52/53	[1]	2.5 <= x % < 10
CAS: 38294-64-3 EC: 500-101-4  PHENOL, 4,4'- (1-METHYLETHYLIDENE) BIS-, POLYMER WITH 5-AMINO-1,3,3-TRIMETHYLCYCLOHEXAN EMETHANAMINE AND (CHLOROMETHYL) OXIRANE	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 2, H411	C,N C;R34 Xn;R21/22 Xi;R43 N;R51/53		0 <= x % < 2.5
INDEX: 604-001-00-2 CAS: 108-95-2 EC: 203-632-7 REACH: 01-2119471329-32-XXXX  PHENOL	GHS06, GHS08, GHS05 Dgr Muta. 2, H341 Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 STOT RE 2, H373 Skin Corr. 1B, H314	T Muta. Cat. 3;R68 T;R23/24/25 C;R34 Xn;R48/20/21/22	[1] [2]	0 <= x % < 2.5
CAS: 112-24-3 EC: 203-950-6 REACH: 01-2119487919-13-XXXX  3,6-DIAZAOCTANETHYLENEDIAMIN	GHS07, GHS05 Dgr Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	C C;R34 Xn;R21 Xi;R43 R52/53		0 <= x % < 2.5
CAS: 69-72-7 EC: 200-712-3  ACIDE SALICYLIQUE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	Xn Xn;R22 Xi;R41-R37/38		0 <= x % < 2.5

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INDEX: 601-053-00-8 CAS: 25154-52-3 EC: 246-672-0  NONYLPHENOL	GHS08, GHS05, GHS07, GHS09 Dgr Repr. 2, H361fd Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	C,N Repr. Cat. 3;R62-R63 C;R34 Xn;R22 N;R50/53	[2] [6]	0 <= x % < 2.5
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**Information on ingredients :**

- [1] Substance for which maximum workplace exposure limits are available.
- [2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.
- [6] Substances of very high concern (SVHC).

**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.  
Never give anything by mouth. If unconscious and breathing, place in recovery position and call an ambulance.

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

Wash thoroughly with soft, 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.

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## 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

#### Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

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

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

Do not breathe in smoke.

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

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- nitrogen dioxide (NO<sub>2</sub>)

### 5.3. Advice for firefighters

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

Wear conform with the European standard EN 469.

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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.

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## 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.

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**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 exposure - obtain special instructions before use.

**Prohibited equipment and procedures :**

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

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

No data available.

**Storage**

Keep 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)**

Hardener

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

**Occupational exposure limits :**

- European Union (2009/161/EU, 2006/15/EC, 2000/39/EC, 98/24/EC)

CAS	VME-mg/m3	VME-ppm	VLE-mg/m3	VLE-ppm	Notes
108-95-2	8	2	16	4	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
1477-55-0	-	-	0.1 mg/m3	-	-
108-95-2	5 ppm	-	-	-	-

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME	VME	Excess	Notes
108-95-2	2 ml/m3	7,8 mg/m3	-	EU, H

- France (INRS - ED984 :2008) :

CAS	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP No
1477-55-0	-	-	-	0.1	-	-
108-95-2	2	7.8	4	15.6	*	-

- Japan (JSOH, 20/05/2009) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
108-95-2	5 ppm	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
108-95-2	2 ppm	-	-	-	-

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

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:

Dermal contact.  
Long term systemic effects.

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DNEL : 9.5 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 450 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 90 mg of substance/m3

**Final use:** **Consumers.**  
Exposure method: Ingestion.  
Potential health effects: Short term systemic effects.  
DNEL : 25 mg/kg body weight/day

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 5 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 28.5 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 5.7 mg/kg body weight/day

Exposure method: Inhalation.  
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

DIAMINO POLYPROPYLENE ETHER (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

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

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

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

DIAMINO POLYPROPYLENE ETHER (CAS: 9046-10-0)

Environmental compartment: PNEC :	Soil. 0.0176 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.015 mg/l
Environmental compartment: PNEC :	Sea water. 0.0143 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 0.15 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 0.132 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.125 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 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 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 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.

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**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

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

**General information :**

Physical state :

Fluid liquid.

Color:

yellow

**Important health, safety and environmental information**

pH :

Not stated.

Slightly basic.

Boiling point/boiling range :

Not relevant.

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Flash Point Interval :	PE > 100°C.
Vapour pressure (50°C) :	Not relevant.
Density :	1.04 ± 0.05 g/cm <sup>3</sup> @ 20°C
Water solubility :	Soluble.
Viscosity :	500 - 1000 mPa.s @ 25°C
Melting point/melting range :	Not relevant.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.
% VOC :	0

## 9.2. Other information

Miscibility	Alcohols, aromatic solvents
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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

No data available.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- nitrogen dioxide (NO<sub>2</sub>)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Harmful if swallowed.

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.

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

#### 11.1.1. Substances

##### Acute toxicity :

COPOLYMER OF BENZENAMINE AND FORMALDEHYDE, HYDROGENATED (CAS: 135108-88-2)

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

ACIDE SALICYLIQUE (CAS: 69-72-7)

Oral route : LD50 = 1415 mg/kg  
Species : Rat (recommended by the CLP)  
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 2000 mg/kg

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	Species : Rat (recommended by the CLP)
Inhalation route :	LC50 > 0.9 mg/l Species : Rat (recommended by the CLP)
3,6-DIAZAOCTANETHYLENEDIAMIN (CAS: 112-24-3)	
Oral route :	LD50 = 2500 mg/kg Species : Rat
Dermal route :	1,000 < LD50 <= 2000 mg/kg Species : Rabbit
META XYLENEDIAMINE (CAS: 1477-55-0)	
Oral route :	LD50 = 930 mg/kg Species : Rat
Dermal route :	LD50 = 2000 mg/kg Species : Rabbit
Inhalation route :	LC50 = 2.4 mg/l Species : Rat
BENZYL ALCOHOL (CAS: 100-51-6)	
Oral route :	LD50 = 1230 mg/kg Species : Rat
Dermal route :	LD50 = 2000 mg/kg Species : Rabbit
DIAMINO POLYPROPYLÈNE ETHER (CAS: 9046-10-0)	
Oral route :	LD50 = 2885.3 mg/kg Species : Rat
Dermal route :	LD50 = 2979.7 mg/kg Species : Rabbit
<b>Skin corrosion/skin irritation :</b>	
3,6-DIAZAOCTANETHYLENEDIAMIN (CAS: 112-24-3)	
Corrosivity :	Causes severe skin burns.
META XYLENEDIAMINE (CAS: 1477-55-0)	
Corrosivity :	Causes severe skin burns.
DIAMINO POLYPROPYLÈNE ETHER (CAS: 9046-10-0)	
Corrosivity :	Causes severe skin burns. OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
<b>Germ cell mutagenicity :</b>	
ACIDE SALICYLIQUE (CAS: 69-72-7)	
Ames test (in vitro) :	Negative.
META XYLENEDIAMINE (CAS: 1477-55-0)	
Ames test (in vitro) :	Negative.

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DIAMINO POLYPROPYLENE ETHER (CAS: 9046-10-0)  
No mutagenic effect.

**Reproductive toxicant :**

DIAMINO POLYPROPYLENE ETHER (CAS: 9046-10-0)  
Study on development : Species : Rat  
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

**Specific target organ systemic toxicity - repeated exposure :**

DIAMINO POLYPROPYLENE ETHER (CAS: 9046-10-0)  
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Dermal route : C = 250 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.

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

CAS 108-95-2 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

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**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**

DIAMINO POLYPROPYLENE ETHER (CAS: 9046-10-0)  
Algae toxicity : NOEC = 0.32 mg/l  
Duration of exposure : 72 h  
OECD Guideline 201 (Alga, Growth Inhibition Test)

ACIDE SALICYLIQUE (CAS: 69-72-7)  
Fish toxicity : LC50 = 90 mg/l  
Species : *Leuciscus idus*  
Duration of exposure : 48 h  
Other guideline

Crustacean toxicity : EC50 = 230 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 24 h  
OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

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

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### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

### 12.2. Persistence and degradability

#### 12.2.1. Substances

ACIDE SALICYLIQUE (CAS: 69-72-7)

Biodegradability :

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

META XYLENEDIAMINE (CAS: 1477-55-0)

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.

DIAMINO POLYPROPYLENE ETHER (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

META XYLENEDIAMINE (CAS: 1477-55-0)

Bioaccumulation :

BCF = 0.43

### 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.

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## 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 2013 - IMDG 2012 - ICAO/IATA 2014).

### 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.  
(diamino polypropylène ether, 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine)

### 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
	8	-	III	5 L	F-A,S-B	223 274	E1

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. Transport in bulk according to Annex II of MARPOL73/78 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:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- 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.

#### - Container information:

No data available.

#### Usage restrictions apply to the product : See annex XVII of EC regulation No. 1907/2006.

For professional users only.

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**- Particular provisions :**

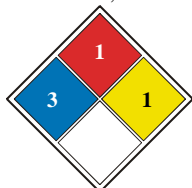
No data available.

**- 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=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.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.**

Hazard symbols :



Corrosive

Contains :

EC 603-894-6  
EC 618-561-0  
EC 500-101-4

COPOLYMER OF BENZENAMINE AND FORMALDEHYDE, HYDROGENATED  
DIAMINO POLYPROPYLENE ETHER  
PHENOL, 4,4'- (1-METHYLETHYLIDENE) BIS-, POLYMER WITH  
5-AMINO-1,3,3-TRIMETHYLCYCLOHEXANEMETHANAMINE AND (CHLOROMETHYL)  
OXIRANE  
FORMALDEHYDE, POLYMER WITH  
PHENOL  
3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCLOHEXYLAMINE  
3,6-DIAZAOCTANETHYLENEDIAMIN  
META XYLENEDIAMINE

Risk phrase :

R 52/53

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 43

May cause sensitisation by skin contact.

R 20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

R 34

Causes burns.

R 68

Possible risk of irreversible effects.

For professional use only.

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Safety phrase :

S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 60	This material and its container must be disposed of as hazardous waste.
S 61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S 9	Keep container in a well-ventilated place. Product submitted to restrictions on the marketing and use: see Directive 76/769/EEC and its ensuing adaptations.

**Title for H, EUH and R indications mentioned in section 3 :**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H302 + H312	Harmful if swallowed or in contact with skin.
H302 + H332	Harmful if swallowed or if inhaled.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects .
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
R 20/22	Harmful by inhalation and if swallowed.
R 21	Harmful in contact with skin.
R 21/22	Harmful in contact with skin and if swallowed.
R 22	Harmful if swallowed.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 34	Causes burns.
R 37/38	Irritating to respiratory system and skin.
R 41	Risk of serious damage to eyes.
R 43	May cause sensitisation by skin contact.
R 48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R 48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 62.F3	Possible risk of impaired fertility.
R 63.G3	Possible risk of harm to the unborn child.
R 68	Possible risk of irreversible effects.



**Abbreviations :**

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

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

GHS08 : Health hazard

SVHC : Substances of very high concern.