

SD 5506 - 1144



## 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 5506

Product code : 1144.

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 : 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.

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).

Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).

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

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

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

Reproductive toxicity, Category 2 (Repr. 2, H361).

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 :



GHS08



GHS07



GHS05



GHS09

Signal Word :

DANGER

Product identifiers :

EC 216-032-5

META XYLENE DIAMINE

EC 201-245-8

BISPHENOL A

EC 500-137-0

FORMALDEHYDE, POLYMER WITH

EC 220-666-8

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

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601-053-00-8	4-NONYLPHENOL, BRANCHED
604-001-00-2	PHENOL
Additional labeling :	
Hazard statements :	
H302 + H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects .
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
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.

**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	Note	%
CAS: 1477-55-0 EC: 216-032-5 REACH: 01-2119480150-50-XXXX  META XYLENE DIAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 4, H332 Aquatic Chronic 3, H412 EUH:071	[1]	25 <= x % < 50
CAS: 80-05-7 EC: 201-245-8 REACH: 01-2119457856-23-XXXX  BISPHENOL A	GHS05, GHS09, GHS08, GHS07 Dgr Eye Dam. 1, H318 STOT SE 3, H335 Repr. 2, H361f Aquatic Chronic 2, H411	[1] [2]	10 <= x % < 25
CAS: 57214-10-5 EC: 500-137-0 REACH: 01-2119966906-20-XXXX  FORMALDEHYDE, POLYMER WITH	GHS05, GHS07 Dgr Skin Corr. 1C, H314 Skin Sens. 1B, H317 Aquatic Chronic 3, H412		10 <= x % < 25
CAS: 2855-13-2 EC: 220-666-8 REACH: 01-2119514687-32-XXXX  3-AMINOMETHYL-3,5,5-TRIMETHYL-CYCL OHEXYLAMINE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412		10 <= x % < 25

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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, GHS09 Dgr Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 2, H411		2.5 <= x % < 10
INDEX: 601-053-00-8 CAS: 84852-15-3 EC: 284-325-5  4-NONYLPHENOL, BRANCHED	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	[2] [6]	2.5 <= x % < 10
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	[1] [2]	1 <= x % < 2.5

**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 :**

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.  
If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.  
Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

**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.

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**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 inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

**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.

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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.  
Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

**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 :**

Handle in well-ventilated areas.  
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 inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.  
Provide vapor extraction at the emission source and also general ventilation of the premises.  
Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.  
In all cases, recover emissions at source.  
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 the container tightly closed in a dry, well-ventilated place.  
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.

**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
80-05-7	10	-	-	-	-
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
80-05-7	-	5 mg/m3 E	1(I)	DFG, Y
108-95-2	2 ml/m3	7,8 mg/m3	-	EU, H

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- France (INRS - ED984 :2012) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
1477-55-0	-	-	-	0.1	-	-
80-05-7		10	-	-	R2	
108-95-2	2	7.8	4	15.6	*	-

- 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):**

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

**Final use:**

Exposure method:  
 Potential health effects:  
 DNEL :

**Workers.**

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

Exposure method:  
 Potential health effects:  
 DNEL :

Dermal contact.  
 Long term local effects.  
 0.623 mg of substance/cm2

**Final use:**

Exposure method:  
 Potential health effects:  
 DNEL :

**Consumers.**

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

Exposure method:  
 Potential health effects:  
 DNEL :

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

Exposure method:  
 Potential health effects:  
 DNEL :

Dermal contact.  
 Long term local effects.  
 0.311 mg of substance/cm2

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

**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

BISPHENOL A (CAS: 80-05-7)

**Final use:**

Exposure method:  
 Potential health effects:

**Workers.**

Dermal contact.  
 Short term systemic effects.

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DNEL : 1.4 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 1.4 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 10 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 10 mg of substance/m3

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

Exposure method: Ingestion.  
Potential health effects: Short term systemic effects.  
DNEL : 0.05 mg/kg body weight/day

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 0.05 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 0.7 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 0.7 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 5.0 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 0.25 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 5 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 5 mg of substance/m3

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

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.

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PNEC :	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

**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

**BISPHENOL A (CAS: 80-05-7)**

Environmental compartment: PNEC :	Soil. 3.7 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.018 mg/l
Environmental compartment: PNEC :	Sea water. 0.016 mg/l
Environmental compartment: PNEC :	Waste water treatment plant. 320 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 :

- Natural latex
- 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

Avoid breathing vapours.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

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

Attention! If the protection group is insufficient.

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

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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.  
Flash Point Interval : PE > 100°C.  
Vapour pressure (50°C) : Not relevant.  
Density : 1.07 ± 0.01  
Water solubility : Soluble.  
Viscosity : 600 ± 100 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**

Keep away from :  
- strong oxidising agents

**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>)

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**SECTION 11 : TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

Harmful if swallowed.

Harmful by inhalation.

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.

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Cause for concern owing to the possibility that it may induce heritable mutations in the germ cells of humans.  
Suspected human reproductive toxicant.  
Suspected of damaging fertility and the unborn child.

**11.1.1. Substances**

**Acute toxicity :**

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

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)

BISPHENOL A (CAS: 80-05-7)

Oral route : LD50 = 3250 mg/kg  
Species : Rat

Dermal route : LD50 = 3000 mg/kg  
Species : Rabbit

META XYLENE DIAMINE (CAS: 1477-55-0)

Oral route : LD50 = 930 mg/kg  
Species : Rat

Dermal route : LD50 > 3100 mg/kg

Inhalation route (n/a) : LC50 = 1.34 ppm  
Species : Rat

**Skin corrosion/skin irritation :**

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  
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

FORMALDEHYDE, POLYMER WITH (CAS: 57214-10-5)

Corrosivity : Causes severe skin burns.

META XYLENE DIAMINE (CAS: 1477-55-0)

Corrosivity : Causes severe skin burns.

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Species : Rat

**Respiratory or skin sensitisation :**

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

Species : Rabbit  
OECD Guideline 406 (Skin Sensitisation)

BISPHENOL A (CAS: 80-05-7)

Guinea Pig Maximisation Test (GMPT) : Non-sensitiser.  
Species : Guinea pig

META XYLENE DIAMINE (CAS: 1477-55-0)

May cause an allergic skin reaction.  
Local lymph node stimulation test : Sensitiser.  
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

**Germ cell mutagenicity :**

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

No mutagenic effect.

META XYLENE DIAMINE (CAS: 1477-55-0)

No mutagenic effect.

**Reproductive toxicant :**

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  
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

META XYLENE DIAMINE (CAS: 1477-55-0)

No toxic effect for reproduction

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

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

Oral route : C = 239 mg/kg bodyweight/day  
Species : Rat  
Duration of exposure : 28 days  
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Dermal route : C = 250 mg/kg bodyweight/day  
Duration of exposure : 90 days  
OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

META XYLENE DIAMINE (CAS: 1477-55-0)

Oral route : C = 600 mg/kg bodyweight/jour  
Species : Rat  
Duration of exposure : 28 days  
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

**11.1.2. Mixture**

No toxicological data available for the mixture.

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**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.

**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**

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  
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 80 mg/l  
Species : Others  
Duration of exposure : 48 h  
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity : NOEC = 0.32 mg/l  
Species : Others  
Duration of exposure : 72 h  
OECD Guideline 201 (Alga, Growth Inhibition Test)

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 : 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  
Other guideline

BISPHENOL A (CAS: 80-05-7)

Fish toxicity : LC50 = 4.6 mg/l  
Species : Pimephales promelas

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	Duration of exposure : 96 h
	NOEC = 0.016 mg/l Species : Others
Crustacean toxicity :	EC50 = 7.75 mg/l Species : Others Duration of exposure : 48 h
	NOEC = 1.8 mg/l
Algae toxicity :	ECr50 = 2.73 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 96 h
META XYLENE DIAMINE (CAS: 1477-55-0)	
Fish toxicity :	LC50 = 87.6 mg/l Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 15.2 mg/l Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 = 20.3 mg/l Species : Scenedesmus subspicatus 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**

REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA (CAS: 9046-10-0)

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.

BISPHENOL A (CAS: 80-05-7)

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

META XYLENE DIAMINE (CAS: 1477-55-0)

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

**12.3. Bioaccumulative potential**

**12.3.1. Substances**

BISPHENOL A (CAS: 80-05-7)

Bioaccumulation : BCF = 73

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REACTION PRODUCTS OF DI-, TRI AND TETRA-PROPOXYLATED PROPANE-1,2-DIOL WITH AMMONIA (CAS: 9046-10-0)

Octanol/water partition coefficient : log K<sub>ow</sub> = 1.34

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

Octanol/water partition coefficient : log K<sub>ow</sub> = 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 3 (VwVwS vom 27/07/2005, KBws) : Extremely 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 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.  
(meta xylene diamine, bisphenol a)

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

- Classification :



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**14.4. Packing group**

II

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**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
	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.

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

For professional users only.

**- Particular provisions :**

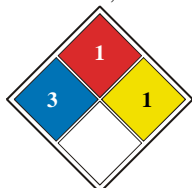
No data available.

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

WGK 3 (VwVwS vom 27/07/2005, KBws) : Extremely hazardous for water.

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

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



**15.2. Chemical safety assessment**

No data available.



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**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 :**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
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.
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 .
H361f	Suspected of damaging fertility.
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.

**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

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.