

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name: HX449TC/BK

Synonyms: EHC: 2861100001023

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

Company name: Robnor ResinLab Ltd

31 Athena Avenue

Elgin Industrial Estate

Swindon

Wiltshire

SN2 8EJ

United Kingdom

Tel: +44(0) 1793 823741

Fax: +44(0) 1793 827033

Email: [eusds@robnor.co.uk](mailto:eusds@robnor.co.uk)**1.4. Emergency telephone number**

Emergency tel: +44(0) 1793 823741

(office hours only)

**Section 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification under CLP: Skin Corr. 1B: H314; Skin Sens. 1: H317; Repr. 2: H361f; Aquatic Chronic 2: H411

Most important adverse effects: Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

Label elements:

Hazard statements: H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H361f: Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark

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GHS08: Health hazard

GHS09: Environmental



Signal words: Danger

Precautionary statements: P260: Do not breathe mist.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310: Immediately call a doctor.

P273: Avoid release to the environment.

## 2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

Hazardous ingredients:

AMINE-TERMINATED POLY(ACRYLONITRILE-CO-BUTADIENE)

EINECS	CAS	PBT / WEL	CLP Classification	Percent
614-706-7	68683-29-4	-	Skin Irrit. 2: H315; Skin Sens. 1: H317	10-30%

N-(BETA-AMINOETHYL)PIPERAZINE - REACH registered number(s): 01-2119471486-30-XXXX

205-411-0	140-31-8	-	Skin Corr. 1B: H314; Acute Tox. 3: H311; Acute Tox. 4: H302; Skin Sens. 1: H317; Aquatic Chronic 3: H412	10-30%
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DODECYLPHENOL - REACH registered number(s): 01-2119432403-51

310-154-3	121158-58-5	-	Skin Irrit. 2: H315; Eye Irrit. 2: H319; Repr. 2: H361f; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	1-10%
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[cont...]

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## PROPOXYLATED TRIETHYLENETETRAMINE

500-055-5	26950-63-0	-	Acute Tox. 4: H312; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Skin Sens. 1: H317; Aquatic Chronic 3: H412	1-10%
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TRIETHYLENETETRAMINE - REACH registered number(s): 01-2119487919-13-XXXX

203-950-6	112-24-3	-	Skin Corr. 1B: H314; Acute Tox. 4: H302+312; Skin Sens. 1: H317; Aquatic Chronic 3: H412	1-10%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.
- Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

### 4.2. Most important symptoms and effects, both acute and delayed

- Skin contact:** Severe burns may occur. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. May cause sensitisation in susceptible individuals.
- Eye contact:** Corneal burns may occur. May cause permanent damage.
- Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.
- Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

- Immediate / special treatment:** Show this safety data sheet to the doctor in attendance. A decontamination shower should be available on the premises. Eye bathing equipment should be available on the premises.

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

Exposure hazards: Corrosive. In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS.

### 6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

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

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

### 7.3. Specific end use(s)

## Section 8: Exposure controls/personal protection

[cont...]

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## 8.1. Control parameters

Workplace exposure limits: No data available.

## DNEL/PNEC Values

Hazardous ingredients:

### N-(BETA-AMINOETHYL)PIPERAZINE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	3.6 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	21.4 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal (repeated dose)	3.3 mg/kg	Workers	Systemic
DNEL	Dermal	20 mg/kg	Workers	Systemic
DNEL	Dermal	6 ug/cm <sup>2</sup>	Workers	Local
PNEC	Fresh water	58 ug/L	-	-
PNEC	Marine water	6 ug/L	-	-
PNEC	Microorganisms in sewage treatment	250 mg/L	-	-
PNEC	Fresh water sediments	215 mg/kg	-	-
PNEC	Marine sediments	21.5 mg/kg	-	-
PNEC	Soil (agricultural)	42.9 mg/kg	-	-

### TRIETHYLENETETRAMINE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	1 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	5380 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal	28 ug/kg	Workers	Local
DNEL	Dermal	57 ug/kg	Workers	Systemic
PNEC	Fresh water	190 ug/L	-	-
PNEC	Marine water	38 ug/L	-	-
PNEC	Microorganisms in sewage treatment	4.25 mg/L	-	-
PNEC	Fresh water sediments	95.9 mg/kg	-	-
PNEC	Marine sediments	19.2 mg/kg	-	-
PNEC	Soil (agricultural)	19.1 mg/kg	-	-

## 8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

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## Section 9: Physical and chemical properties

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

State: Liquid

Colour: Black

Odour: Characteristic odour

Solubility in water: Slightly soluble

Viscosity: Non-viscous

Boiling point/range°C: >200

Relative density: 1.43

### 9.2. Other information

Other information: No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

### 10.4. Conditions to avoid

Conditions to avoid: Heat.

### 10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

Hazardous ingredients:

AMINE-TERMINATED POLY(ACRYLONITRILE-CO-BUTADIENE)

DERMAL	RBT	LD50	>3000	mg/kg
ORAL	RAT	LD50	>15400	mg/kg

[cont...]

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## N-(BETA-AMINOETHYL)PIPERAZINE

DERMAL	RBT	LD50	886	mg/kg
ORAL	RAT	LD50	1000	mg/kg

## DODECYLPHENOL

ORAL	RAT	LD50	2140	mg/kg
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## PROPOXYLATED TRIETHYLENETETRAMINE

DERMAL	RBT	LD50	>1000	mg/kg
ORAL	RAT	LD50	4500	mg/kg

## TRIETHYLENETETRAMINE

DERMAL	RBT	LD50	1465	mg/kg
ORAL	RAT	LD50	>300	mg/kg

### Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** Severe burns may occur. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. May cause sensitisation in susceptible individuals.

**Eye contact:** Corneal burns may occur. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

#### Hazardous ingredients:

#### AMINE-TERMINATED POLY(ACRYLONITRILE-CO-BUTADIENE)

ALGAE	72H ErC50	>1000	mg/l
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DAPHNIA	48H EC50	>1000	mg/l
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## N-(BETA-AMINOETHYL)PIPERAZINE

Daphnia magna	48H EC50	58	mg/l
FISH	96H LC50	2190	mg/l
GREEN ALGA (Selenastrum capricornutum)	72H ErC50	>1000	mg/l

## DODECYLPHENOL

DAPHNIA	48H EC50	0.037	mg/l
FISH	96H LC50	0.14	mg/l

## TRIETHYLENETETRAMINE

ALGAE	72H ErC50	>10	mg/l
Daphnia magna	48H EC50	33.9	mg/l
FISH	96H LC50	>100	mg/l

### 12.2. Persistence and degradability

Persistence and degradability: No data available.

### 12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

### 12.4. Mobility in soil

Mobility: Partially soluble in water.

### 12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

UN number: UN2735

[cont...]



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## 14.2. UN proper shipping name

Shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.  
(2-PIPERAZIN-1-YLETHYLAMINE; TRIETHYLENETETRAMINE)

## 14.3. Transport hazard class(es)

Transport class: 8

## 14.4. Packing group

Packing group: II

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

## 14.6. Special precautions for user

Tunnel code: E

Transport category: 2

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

### 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

- H302: Harmful if swallowed.
- H302+312: Harmful if swallowed or in contact with skin.
- 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.
- H319: Causes serious eye irritation.
- H361f: Suspected of damaging fertility.
- 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.

[cont...]

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Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name: RX449TC/GY

Synonyms: EHC: 2861100001022

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

Company name: Robnor ResinLab Ltd

31 Athena Avenue

Elgin Industrial Estate

Swindon

Wiltshire

SN2 8EJ

United Kingdom

Tel: +44(0) 1793 823741

Fax: +44(0) 1793 827033

Email: [eusds@robnor.co.uk](mailto:eusds@robnor.co.uk)**1.4. Emergency telephone number**

Emergency tel: +44(0) 1793 823741

(office hours only)

**Section 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification under CLP: Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317; Muta. 2: H341; Aquatic Chronic 2: H411

Most important adverse effects: Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing genetic defects [kidney][liver][bone marrow]. Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

Label elements:

Hazard statements: H318: Causes serious eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H341: Suspected of causing genetic defects [kidney][liver][bone marrow].

H411: Toxic to aquatic life with long lasting effects.

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Hazard pictograms: GHS05: Corrosion  
GHS07: Exclamation mark  
GHS08: Health hazard  
GHS09: Environmental



Signal words: Danger

Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P261: Avoid breathing mist.  
P305+351+338: 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 doctor.  
P302+352: IF ON SKIN: Wash with plenty of water/soap and water.  
P308+313: IF exposed or concerned: Get medical attention.  
P273: Avoid release to the environment.

## 2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

Hazardous ingredients:

#### ALUMINIUM HYDROXIDE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
244-492-7	21645-51-2	Substance with a Community workplace exposure limit.	-	30-50%

ZINC OXIDE - REACH registered number(s): 01-2119463881-32-XXXX

-	1314-13-2	-	Aquatic Chronic 1: H410; Aquatic Acute 1: H400	10-30%
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BISPHENOL A EPOXY RESIN (MW <700) - REACH registered number(s): 01-2119456619-26-XXXX

500-033-5	25068-38-6	-	Skin Irrit. 2: H315; Eye Irrit. 2: H319; Skin Sens. 1: H317; Aquatic Chronic 2: H411	10-30%
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1,4-BUTANEDIOL DIGLYCIDYL ETHER - REACH registered number(s): 01-2119494060-45-XXXX

219-371-7	2425-79-8	-	Acute Tox. 4: H302+312+332; Skin Sens. 1: H317; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315	1-10%
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GLYCIDYL NEODECANOATE - REACH registered number(s): 01-2119431597-33-XXXX

247-979-2	26761-45-5	-	Skin Sens. 1: H317; Muta. 2: H341; Aquatic Chronic 2: H411	1-10%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. If irritation occurs or persists, seek medical attention. Transfer to hospital if necessary.

**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact. May cause sensitisation in susceptible individuals.

**Eye contact:** There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

**Exposure hazards:** In combustion emits toxic fumes.

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## 5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS.

### 6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.

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

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

### 7.3. Specific end use(s)

Specific end use(s): No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

Hazardous ingredients:

ALUMINIUM HYDROXIDE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL

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UK	4 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	-	-
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### ZINC OXIDE

UK	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	-	-
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### DNEL/PNEC Values

Hazardous ingredients:

#### ALUMINIUM HYDROXIDE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	10.76 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	3.59 mg/m <sup>3</sup>	Workers	Local

#### ZINC OXIDE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	5 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	0.5 mg/m <sup>3</sup>	Workers	Local
DNEL	Dermal	83 mg/kg	Workers	Systemic
PNEC	Fresh water	20.6 ug/L	-	-
PNEC	Marine water	6.1 ug/L	-	-
PNEC	Microorganisms in sewage treatment	100 ug/L	-	-
PNEC	Fresh water sediments	117.8 mg/kg	-	-
PNEC	Marine sediments	56.5 mg/kg	-	-
PNEC	Soil (agricultural)	35.6 mg/kg	-	-

#### BISPHENOL A EPOXY RESIN (MW <700)

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	12.25 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal	8.33 mg/kg	Workers	Systemic
PNEC	Fresh water	6 ug/L	-	-
PNEC	Marine water	600 ng/L	-	-
PNEC	Microorganisms in sewage treatment	10 mg/L	-	-
PNEC	Fresh water sediments	996 ug/kg	-	-
PNEC	Marine sediments	99.6 ug/kg	-	-
PNEC	Soil (agricultural)	196 ug/kg	-	-
PNEC	Food chain	11 mg/kg	-	-

#### 1,4-BUTANEDIOL DIGLYCIDYL ETHER

Type	Exposure	Value	Population	Effect
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DNEL	Inhalation	4.7 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal	6.66 mg/kg	Workers	Systemic
PNEC	Fresh water	24 ug/L	-	-
PNEC	Marine water	2.4 ug/L	-	-
PNEC	Microorganisms in sewage treatment	100 mg/L	-	-
PNEC	Fresh water sediments	84 ug/kg	-	-
PNEC	Marine sediments	8.4 ug/kg	-	-
PNEC	Soil (agricultural)	2.7 ug/kg	-	-
PNEC	Food chain	28 ug/kg	-	-

## GLYCIDYL NEODECANOATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	2.7 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal	1.9 mg/kg	Workers	Systemic
PNEC	Fresh water	1.2 ug/L	-	-
PNEC	Marine water	120 ng/L	-	-
PNEC	Microorganisms in sewage treatment	50 mg/L	-	-

## 8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

## Section 9: Physical and chemical properties

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

State: Liquid

Colour: Grey

Odour: Perceptible odour

Viscosity: Viscous

Boiling point/range°C: >200

Relative density: 2.09

### 9.2. Other information

Other information: No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

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## 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

## 10.4. Conditions to avoid

Conditions to avoid: Heat.

## 10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Strong bases.

## 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

Hazardous ingredients:

#### ALUMINIUM HYDROXIDE

ORAL	RAT	LD50	>2000	mg/kg
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#### ZINC OXIDE

DUST/MIST	RAT	4H LC50	>5.7	mg/l
ORL	MUS	LD50	7950	mg/kg

#### BISPHENOL A EPOXY RESIN (MW <700)

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>2000	mg/kg

#### 1,4-BUTANEDIOL DIGLYCIDYL ETHER

DERMAL	RAT	LD50	>2150	mg/kg
ORAL	RAT	LD50	1118	mg/kg
VAPOURS	RAT	4H LC50	>11.3	mg/l

#### GLYCIDYL NEODECANOATE

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>2000	mg/kg

[cont...]

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Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Germ cell mutagenicity	--	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact. May cause sensitisation in susceptible individuals.

**Eye contact:** There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

Hazardous ingredients:

#### ALUMINIUM HYDROXIDE

Daphnia magna	48H EC50	>100	mg/l
FISH	96H LC50	>100	mg/l
GREEN ALGA ( <i>Selenastrum capricornutum</i> )	72H ErC50	>100	mg/l

#### ZINC OXIDE

Daphnia magna	48H EC50	7.1	mg/l
GREEN ALGA ( <i>Selenastrum capricornutum</i> )	72H IC50	136	µg/l
ZEBRAFISH ( <i>Brachydanio rerio</i> )	96H LC50	3.31	mg/l

#### BISPHENOL A EPOXY RESIN (MW <700)

Daphnia magna	48H EC50	1.7	mg/l
GREEN ALGA ( <i>Selenastrum capricornutum</i> )	72H ErC50	2.4	mg/l
RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	96H LC50	1.2	mg/l

[cont...]

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## 1,4-BUTANEDIOL DIGLYCIDYL ETHER

Scenedesmus Subspicatus	72H ErC50	110	mg/l
ZEBRAFISH (Brachydanio rerio)	96H LC50	24	mg/l

## GLYCIDYL NEODECANOATE

Daphnia magna	48H EC50	4.8	mg/l
GREEN ALGA (Senastrum capricornutum)	72H ErC50	1.2	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	5	mg/l

### 12.2. Persistence and degradability

Persistence and degradability: Not readily biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

### 12.4. Mobility in soil

Mobility: Non-volatile.

### 12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

UN number: UN3082

### 14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(BISPHENOL A EPOXY RESIN (MW <700); ZINC OXIDE)

### 14.3. Transport hazard class(es)

Transport class: 9

[cont...]

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## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

## 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

### 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H302+312+332: Harmful if swallowed, in contact with skin or if inhaled.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H341: Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

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.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.