

SAFETY DATA SHEET HX449TC/BK

Page: 1

Compilation date: 23/08/2012

Revision date: 10/05/2016

Revision No: 1a

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: HX449TC/BK

Synonyms: EHC: 28611000001023

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

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

HX449TC/BK

Page: 2

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; | 10-30% |
|-----------|----------|---|--|--------|
| | | | Acute Tox. 4: H302; Skin Sens. 1: H317; | |
| | | | Aquatic Chronic 3: H412 | |

DODECYLPHENOL - REACH registered number(s): 01-2119432403-51

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

HX449TC/BK

Page: 3

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% |
|--------------|------------------|---------------------------------------|--|-------|
| TRIETHYLENET | ETRAMINE - REACH | registered number(s): 01-2119487919-1 | 3-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% |

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.

HX449TC/BK

Page: 4

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

HX449TC/BK

Page: 5

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

Hazardous ingredients:

N-(BETA-AMINOETHYL)PIPERAZINE

| Туре | Exposure | Value | Population | Effect |
|------|------------------------------------|------------|------------|----------|
| DNEL | Inhalation (repeated dose) | 3.6 mg/m3 | Workers | Systemic |
| DNEL | Inhalation | 21.4 mg/m3 | Workers | Systemic |
| DNEL | Dermal (repeated dose) | 3.3 mg/kg | Workers | Systemic |
| DNEL | Dermal | 20 mg/kg | Workers | Systemic |
| DNEL | Dermal | 6 ug/cm2 | 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

| Туре | Exposure | Value | Population | Effect |
|------|------------------------------------|------------|------------|----------|
| DNEL | Inhalation | 1 mg/m3 | Workers | Systemic |
| DNEL | Inhalation | 5380 mg/m3 | 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.

HX449TC/BK

Page: 6

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 |

HX449TC/BK

Page: 7

N-(BETA-AMINOETHYL)PIPERAZINE

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

DODECYLPHENOL

| ORAL | RAT | LD50 | 2140 | ma/ka |
|------|-----|------|------|-------|
| | | | | 99 |

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 |
|-------|-----------|-------|------|

HX449TC/BK

Page: 8

| DAPHNIA | 48H EC50 | >1000 | mg/l |
|---------|----------|-------|------|
|---------|----------|-------|------|

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/I |

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

HX449TC/BK

Page: 9

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.

HX449TC/BK

Page: 10

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.



RX449TC/GY

Page: 1

Compilation date: 23/08/2012

Revision date: 10/05/2016

Revision No: 2

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: RX449TC/GY

Synonyms: EHC: 28611000001022

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

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.

RX449TC/GY

Page: 2

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

$\label{thm:max-decomposition} \textbf{Hazardous ingredients:}$

ALUMINIUM HYDROXIDE

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

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

| - | 1314-13-2 | - | Aquatic Chronic 1: H410; Aquatic Acute | 10-30% |
|---|-----------|---|--|--------|
| | | | 1: H400 | |

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; | 10-30% |
|-----------|------------|---|--|--------|
| | | | Skin Sens. 1: H317; Aquatic Chronic 2: | |
| | | | H411 | |

RX449TC/GY

Page: 3

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% |
|--------------|------------------|---------------------------------------|--|-------|
| GLYCIDYL NEO | DECANOATE - REAC | Hregistered number(s): 01-2119431597- | , | |
| 247-979-2 | 26761-45-5 | - | Skin Sens. 1: H317; Muta. 2: H341; | 1-10% |

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 neccessary.

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.

RX449TC/GY

Page: 4

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 | in. STEL 8 hour TWA | 15 min. STEL |
|-------------------------|---------------------|--------------|
|-------------------------|---------------------|--------------|

RX449TC/GY

Page: 5

| | UK | 4 mg/m3 | 10 mg/m3 | - | - | |
|---|------------|---------|----------|---|---|--|
| 7 | ZINC OXIDE | | | | | |
| | UK | 5 mg/m3 | 10 mg/m3 | - | - | |
| | | | | | | |

DNEL/PNEC Values

Hazardous ingredients:

ALUMINIUM HYDROXIDE

| Туре | Exposure | Value | Population | Effect |
|------|------------|-------------|------------|----------|
| DNEL | Inhalation | 10.76 mg/m3 | Workers | Systemic |
| DNEL | Inhalation | 3.59 mg/m3 | Workers | Local |

ZINC OXIDE

| Туре | Exposure | Value | Population | Effect |
|------|------------------------------------|-------------|------------|----------|
| DNEL | Inhalation | 5 mg/m3 | Workers | Systemic |
| DNEL | Inhalation | 0.5 mg/m3 | 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)

| Туре | Exposure | Value | Population | Effect |
|------|------------------------------------|-------------|------------|----------|
| DNEL | Inhalation | 12.25 mg/m3 | 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 Laposure Value Fopulation Lit | Туре | Exposure | Value | Population | Effec |
|--|------|----------|-------|------------|-------|
|--|------|----------|-------|------------|-------|

RX449TC/GY

Page: 6

| DNEL | Inhalation | 4.7 mg/m3 | 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

| Туре | Exposure | Value | Population | Effect |
|------|--------------------------|-----------|------------|----------|
| DNEL | Inhalation | 2.7 mg/m3 | 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 | 50 mg/L | - | - |
| | treatment | | | |

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.

RX449TC/GY

Page: 7

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 |
|---------------------------|
|---------------------------|

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 |

RX449TC/GY

Page: 8

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 (Selenastrum capricornutum) | 72H ErC50 | >100 | mg/l |

ZINC OXIDE

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

BISPHENOL A EPOXY RESIN (MW <700)

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

RX449TC/GY

Page: 9

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 (Selenastrum 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

RX449TC/GY

Page: 10

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.

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