

SAFETY DATA SHEET

EPIREZ MULTI-PURPOSE EPOXY CONCRETE REPAIR [MULTI II] HARDENER

Infosafe No.: C61G1
ISSUED Date : 20/08/2021
ISSUED by: ITW POLYMERS & FLUIDS

Section 1 - Identification

Product Identifier

EPIREZ MULTI-PURPOSE EPOXY CONCRETE REPAIR [MULTI II] HARDENER

Company Name

ITW POLYMERS & FLUIDS

Address

100 Hassall Street Wetherill Park
NSW 2164 AUSTRALIA

Telephone/Fax Number

Tel: +61 2 9757 8800

Emergency Phone Number

+61 1800 951 288; +61 3 9573 3188

Recommended use of the chemical and restrictions on use

Relevant identified uses

Hardener component of a two-part epoxy concrete repair system.

The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

Use according to manufacturer's directions.

Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions.

Additional Information

Website : www.itwpf.com.au

EMERGENCY RESPONSE

Primary Number : +61 1800 951 288

Alternative Number 1 : +61 3 9573 3188

Alternative Number 2 : Not Available

Once connected and if the message is not in your preferred language then please dial 01

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classification [1] : Corrosive to Metals Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2

Signal Word (s)

WARNING

Hazard Statement (s)

H290 May be corrosive to metals.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

Pictogram (s)

Corrosion, Exclamation mark, Health hazard

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Precautionary Statement – Prevention

P201 Obtain special instructions before use.

P260 Do not breathe mist/vapours/spray.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P234 Keep only in original packaging.

Precautionary Statement – Response

P308+P313 IF exposed or concerned: Get medical advice/ attention.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/attention if you feel unwell.

Precautionary Statement – Storage

P405 Store locked up.

Precautionary Statement – Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Other Information

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Legend: 1. Classified by ; 2. Classification drawn from HCIS ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Triethylenetetramine	112-24-3	1-10 %weight
Ingredients determined not to be hazardous		>60 %weight

Other Information

Substances

See section below for composition of Mixtures

Section 4 - First Aid Measures

Inhalation

If fumes, aerosols or combustion products are inhaled remove from contaminated area.

Other measures are usually unnecessary.

Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.

Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).

As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.

Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.

This must definitely be left to a doctor or person authorised by him/her.

(ICSC13719)

Ingestion

If swallowed do NOT induce vomiting.

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If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Observe the patient carefully.

Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Seek medical advice.

Skin

If skin contact occurs:

Immediately remove all contaminated clothing, including footwear.

Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation.

Eye

If this product comes in contact with the eyes:

Wash out immediately with fresh running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Indication of immediate medical attention and special treatment needed if necessary

For acute or short-term repeated exposures to highly alkaline materials:

Respiratory stress is uncommon but present occasionally because of soft tissue edema.

Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.

Oxygen is given as indicated.

The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

Neutralising agents should never be given since exothermic heat reaction may compound injury.

* Catharsis and emesis are absolutely contra-indicated.

* Activated charcoal does not absorb alkali.

* Gastric lavage should not be used.

Supportive care involves the following:

Withhold oral feedings initially.

If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.

Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.

Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Foam.

Dry chemical powder.

BCF (where regulations permit).

Carbon dioxide.

Specific Methods

Alert Fire Brigade and tell them location and nature of hazard.

Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water course.

Use fire fighting procedures suitable for surrounding area.

Specific hazards arising from the chemical

Fire Incompatibility: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as

ignition may result

Fire/Explosion Hazard:

Combustible.

Slight fire hazard when exposed to heat or flame.

Heating may cause expansion or decomposition leading to violent rupture of containers.

On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include:

carbon dioxide (CO₂)

hydrogen fluoride

nitrogen oxides (NO_x)

other pyrolysis products typical of burning organic material.

May emit corrosive fumes.

Hazchem Code

2X

Decomposition Temperature

Not Available

Section 6 - Accidental Release Measures

Clean-up Methods - Small Spillages

Clean up all spills immediately.

Avoid contact with skin and eyes.

Wear impervious gloves and safety goggles.

Trowel up/scrape up.

Clean-up Methods - Large Spillages

Clear area of personnel and move upwind.

Alert Fire Brigade and tell them location and nature of hazard.

Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water course.

Other Information

Personal Protective Equipment advice is contained in Section 8 of the SDS.

Section 7 - Handling and Storage

Precautions for Safe Handling

Safe handling

DO NOT allow clothing wet with material to stay in contact with skin

Limit all unnecessary personal contact.

Wear protective clothing when risk of exposure occurs.

Use in a well-ventilated area.

Avoid contact with incompatible materials.

Other information

Store in original containers.

Keep containers securely sealed.

Store in a cool, dry, well-ventilated area.

Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container

Lined metal can, lined metal pail/ can.

Plastic pail.

Polyliner drum.

Packing as recommended by manufacturer.

Storage incompatibility

Avoid contact with copper, aluminium and their alloys.

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Avoid reaction with oxidising agents
strong acids

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient: triethylenetetramine

Material name: Not Available

TEEL-1: 3 ppm

TEEL-2: 14 ppm

TEEL-3: 83 ppm

Ingredient: triethylenetetramine

Original IDLH: Not Available

Revised IDLH: Not Available

Engineering Controls

Use in a well-ventilated area

General exhaust is adequate under normal operating conditions.

Refer also to protective measures for the other component used with the product. Read both SDS before using; store and attach SDS together.

Respiratory Protection

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Eye and Face Protection

Chemical goggles.

Full face shield may be required for supplementary but never for primary protection of eyes.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Hand Protection

NOTE:

The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

Wear chemical protective gloves, e.g. PVC.

Personal Protective Equipment

Other protection

Overalls.

PVC Apron.

PVC protective suit may be required if exposure severe.

Eyewash unit.

Thermal Hazards

Not Available

Footwear

Wear safety footwear or safety gumboots, e.g. Rubber

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Grey combustible paste with an amine-like odour; not miscible with water.
Odour	Not Available	Melting/Freezing Point	Not Available
Boiling Point	Not Available	Decomposition Temperature	Not Available
Solubility in Water	Immiscible	pH	Not Available (as supplied) Not Available as a solution (1%)
Vapour Pressure	Not Available	Relative Vapour Density (Air=1)	Not Available
Evaporation Rate	Not Available	Odour Threshold	Not Available
Viscosity	Not Available	Volatile Component	Not Available
Partition Coefficient: n-octanol/water (log value)	Not Available	Surface Tension	Not Available
Flash Point	>100°C (Pensky-Martens Closed Cup)	Flammability	Not Applicable
Auto-Ignition Temperature	Not Available	Explosion Limit - Upper	Not Available
Explosion Limit - Lower	Not Available	Explosion Properties	Not Available
Molecular Weight	Not Available	Oxidising Properties	Not Available
Initial boiling point and boiling range	Not Available	Relative Density	(Water = 1): 1.6-1.7

Other Information

Taste: Not Available

Gas group: Not Available

VOC g/L: Not Available

Section 10 - Stability and Reactivity

Reactivity

See section 7

Chemical Stability

Unstable in the presence of incompatible materials.

Product is considered stable.

Hazardous polymerisation will not occur.

Possibility of hazardous reactions

See section 7

Conditions to Avoid

See section 7

Incompatible Materials

See section 7

Hazardous Decomposition Products

See section 5

Section 11 - Toxicological Information

Toxicology Information

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Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

Epirez Multi-Purpose Epoxy Concrete Repair [Multi II] Hardener

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. As such, they require careful handling. In general, the low-molecular weight polyamines have been positive in the Ames assay (for genetic damage); however, this is probably due to their ability to chelate copper.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

For alkyl polyamines:

The alkyl polyamines cluster consists of two terminal primary and at least one secondary amine groups and are derivatives of low molecular weight ethylenediamine, propylenediamine or hexanediamine. Toxicity depends on route of exposure. Cluster members have been shown to cause skin irritation or sensitisation, eye irritation and genetic defects, but have not been shown to cause cancer.

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Triethylenetetramine is a severe irritant to skin and eyes and may induce skin sensitisation. Acute exposure to saturated vapour via inhalation was tolerated without impairment but exposure to aerosol may lead to reversible irritations of the mucous membranes in the airways. Studies done on experimental animals showed that it does not cause cancer or foetal developmental defects.

Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).

Acute Toxicity : Data available but does not fill the criteria for classification

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual.

Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucus.

Inhalation

Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma".

Skin

The material can produce chemical burns following direct contact with the skin.

Amine epoxy-curing agents (hardeners) may produce primary skin irritation and sensitisation dermatitis in predisposed individuals. Cutaneous reactions include erythema, intolerable itching and severe facial swelling.

Open cuts, abraded or irritated skin should not be exposed to this material

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Skin Corrosion/Irritation

Data available to make classification

Eye

The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

Serious Eye Damage/Irritation

Data available to make classification

Respiratory Sensitisation

Data available to make classification

Skin Sensitisation

Data available to make classification

Carcinogenicity

Data available but does not fill the criteria for classification

Reproductive Toxicity

Data available to make classification

STOT - Single Exposure

Data available but does not fill the criteria for classification

STOT - Repeated Exposure

Data available to make classification

Aspiration Hazard

Data available but does not fill the criteria for classification

Mutagenicity

Data available but does not fill the criteria for classification

Chronic Effects

Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

Section 12 - Ecological Information

Ecological Information

Toxicity

Not Available

Ingredient : Epirez Multi-Purpose Epoxy Concrete Repair [Multi II] Hardener

Endpoint : Not Available

Test Duration (hr) : Not Available

Effect : Not Available

Value : Not Available

Species : Not Available

BCF: Not Available

Ingredient : Epirez Multi-Purpose Epoxy Concrete Repair [Multi II] Hardener

Endpoint : Not Available

Test Duration (hr) : Not Available

Effect : Not Available

Value : Not Available

Species : Not Available

BCF: Not Available

Prevent, by any means available, spillage from entering drains or water courses.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient: triethylenetetramine

Persistence: Water/Soil: LOW

Persistence: Air: LOW

Mobility

Mobility in soil

Ingredient : triethylenetetramine

Mobility : LOW (KOC = 309.9)

Bioaccumulative Potential

Ingredient: triethylenetetramine

Bioaccumulation: LOW (BCF = 5)

Section 13 - Disposal Considerations

Waste Disposal

Product / Packaging disposal

Recycle wherever possible or consult manufacturer for recycling options.

Consult State Land Waste Management Authority for disposal.

Material may be disposed of by controlled burning in an approved incinerator or buried in an approved landfill.

Prior to disposal in a landfill the material should be mixed with the other component and reacted to render the material inert.

Section 14 - Transport Information

UN Number

1760

Proper Shipping Name

CORROSIVE LIQUID, N.O.S.(contains triethylenetetramine)

Transport Hazard Class

8

Packing Group

III

Hazchem Code

2X

IERG Number

37

IATA UN Number

1760

IATA Proper Shipping Name

CORROSIVE LIQUID, N.O.S. *(contains triethylenetetramine)

IATA Transport Hazard Class

8

IATA Packing Group

III

IMDG UN Number

1760

IMDG Proper Shipping Name

CORROSIVE LIQUID, N.O.S.(contains triethylenetetramine)

IMDG Transport Hazard Class

8

IMDG Packing Group

III

Marine Pollutant

NO

Not Applicable

Additional Information

Land transport (Not Applicable)

UN number: 1760

Packing group: III

UN proper shipping name: CORROSIVE LIQUID, N.O.S. (contains triethylenetetramine)

Environmental hazard: No relevant data

Transport hazard class(es)

Class: 8

Subrisk: Not Applicable

Special precautions for user

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Special provisions: 223 274

Limited quantity: 5 L

Air transport (ICAO-IATA / DGR)

UN number: 1760

Packing group: III

UN proper shipping name: Corrosive liquid, n.o.s. * (contains triethylenetetramine)

Environmental hazard: No relevant data

Transport hazard class(es)

ICAO/IATA Class: 8

ICAO / IATA Subrisk: Not Applicable

ERG Code: 8L

Special precautions for user

Special provisions: A3 A803

Cargo Only Packing Instructions: 856

Cargo Only Maximum Qty / Pack: 60 L

Passenger and Cargo Packing Instructions: 852

Passenger and Cargo Maximum Qty / Pack :5 L

Passenger and Cargo Limited Quantity Packing Instructions: Y841

Passenger and Cargo Limited Maximum Qty / Pack: 1 L

Sea transport (IMDG-Code / GGVSee)

UN number: 1760

Packing group: III

UN proper shipping name: CORROSIVE LIQUID, N.O.S. (contains triethylenetetramine)

Environmental hazard: Not Applicable

Transport hazard class(es)

IMDG Class: 8

IMDG Subrisk: Not Applicable

Special precautions for user

EMS Number: F-A , S-B

Special provisions: 223 274

Limited Quantities: 5 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Source : Not Available

Ingredient : Epirez Multi-Purpose Epoxy Concrete Repair [Multi II] Hardener

Pollution Category : Not Available

Section 15 - Regulatory Information

Regulatory Information

Safety, health and environmental regulations / legislation specific for the substance or mixture triethylenetetramine(112-24-3) is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory : China - IECSC

Status : Yes

National Inventory : Europe - EINEC / ELINCS / NLP

Status : Yes

National Inventory : Japan - ENCS

Status : Yes

National Inventory : Korea - KECI

Status : Yes

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National Inventory : New Zealand - NZIoC

Status : Yes

Legend: Y = All ingredients are on the inventory

Poisons Schedule

S5

Global Inventory Status

Country/Region Inventory	Status Description	Country/Region Inventory	Status Description
Canada (DSL/NDSL)	National Inventory : Canada - DSL Status : Yes National Inventory : Canada - NDSL Status : No (triethylenetetramine)	Philippines (PICCS)	National Inventory : Philippines - PICCS Status : Yes
USA (TSCA)	National Inventory : USA - TSCA Status : Yes		

Section 16 - Any Other Relevant Information

Empirical Formula & Structural Formula

Not Applicable

User Codes

User Title Label	User Codes
Wis Numbers	00739168
Wis Numbers	04116880

Other Information

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

S.GHS.AUS.EN

Chemical Name : Not Applicable

Other means of identification : Not Available

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

This SDS has been transcribed into Infosafe GHS format from an original, issued by the manufacturer on the date shown. Any disclaimer by the manufacturer may not be included in the transcription.

END OF SDS

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