SAFETY DATA SHEET

EPIREZ EPOXY ELECTRICAL MAINTENANCE KIT [324A] RESIN

Infosafe No.: HXFOF ISSUED Date : 18/10/2016 ISSUED by: ITW POLYMERS AND FLUIDS

1. IDENTIFICATION

GHS Product Identifier EPIREZ EPOXY ELECTRICAL MAINTENANCE KIT [324A] RESIN

Company Name

ITW POLYMERS AND FLUIDS (ABN 63 004 235 063)

Address 100 Hassall Street Wetherill Park NSW 2164 Australia

Telephone/Fax Number Tel: +61 2 9757 8800 Fax: +61 2 9757 3855

Emergency phone number 1800 385 556 / 0438 465 960

Emergency Contact Name (02) 9652-1713 A/HRS

Recommended use of the chemical and restrictions on use

Relevant identified uses: Base or Part A of a 2 pack epoxy adhesive Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers Use according to manufacturer's directions. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Electrical repair compound

Additional Information

EMERGENCY RESPONSE Primary Number: 1800 039 008 Alternative Number 1: 1800 039 008 Alternative Number 2: +612 9186 1132

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

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Eye Damage/Irritation: Category 2A Hazardous to the Aquatic Environment - Acute Hazard: Category 2 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2 Sensitization - Skin: Category 1 Skin Corrosion/Irritation: Category 2

Signal Word (s) WARNING

Hazard Statement (s)

H315 Causes skin irritation.H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)

Exclamation mark, Environment



Precautionary statement – Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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

Precautionary statement – Response

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

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

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

Precautionary statement – Storage

Not Applicable

Precautionary statement – Disposal

P501 Dispose of contents/container in accordance with local regulations.

Other Information

Legend:

1. Classified by; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Bisphenol A/ diglycidyl ether resin, liquid	25068-38-6	>60 %w
Reactive diluant	Not Available	10-20 %w

Other Information

Substances:

See section below for composition of Mixtures

4. FIRST-AID MEASURES

Inhalation

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

Lay patient down. Keep warm and rested.

Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

Transport to hospital, or doctor.

Ingestion

If swallowed do NOT induce vomiting.

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 contact

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

Treat symptomatically.

5. FIRE-FIGHTING 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 water delivered as a fine spray to control fire and cool adjacent 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), aldehydes, other pyrolysis products typical of burning organic material Hazchem Code

•3Z

Decomposition Temperature

Not Available

6. ACCIDENTAL RELEASE MEASURES

Clean-up Methods - Small Spillages

Environmental hazard - contain spillage. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite.

Clean-up Methods - Large Spillages

Environmental hazard - contain spillage. Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves.

Other Information

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

7. HANDLING AND STORAGE

Precautions for Safe Handling

Safe handling: DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.

Other information: Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container: Metal can or drum Packaging as recommended by manufacturer.

Check all containers are clearly labelled and free from leaks. Storage incompatibility: Avoid cross contamination between the two liquid parts of product (kit). If two part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur. This excess heat may generate toxic vapour Avoid reaction with amines, mercaptans, strong acids and oxidising agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values INGREDIENT DATA Not Available

EMERGENCY LIMITS Ingredient: bisphenol A/ diglycidyl ether resin, liquid Material name: Epoxy resin (EPON 1001) TEEL-1: 90 mg/m3 TEEL-2: 990 mg/m3 TEEL-3: 5900 mg/m3

Ingredient: bisphenol A/ diglycidyl ether resin, liquid Material name: Epoxy resin (EPON 1007) TEEL-1: 90 mg/m3 TEEL-2: 990 mg/m3 TEEL-3: 5900 mg/m3

Ingredient: bisphenol A/ diglycidyl ether resin, liquid Material name: Epoxy resin (EPON 820)

TEEL-1: 41 mg/m3 TEEL-2: 450 mg/m3 TEEL-3: 2700 mg/m3

Ingredient: bisphenol A/ diglycidyl ether resin, liquid Material name: Epoxy resin ERL-2795 TEEL-1: 32 mg/m3 TEEL-2: 350 mg/m3 TEEL-3: 2100 mg/m3

Ingredient: bisphenol A/ diglycidyl ether resin, liquid Original IDLH: Not Available Revised IDLH: Not Available

Ingredient: reactive diluant Original IDLH: Not Available Revised IDLH: Not Available

Appropriate Engineering Controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

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

Eye Protection

Safety glasses with side shields.

Chemical goggles.

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

When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butatoluene rubber), boots and aprons.

DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin).

DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use.

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care.

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.

Thermal Hazards

Not Available

Body Protection

Other protection: Overalls. P.V.C. apron. Barrier cream.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance

Clear viscous combustible liquid mixture; immiscible with water.

Odour

Not Available

Decomposition Temperature Not Available

Solubility in Water Immiscible

pH Not Applicable (as supplied) Not Applicable as a solution (1%)

Vapour Pressure Not Available

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 Not Available

Surface tension Not Available

Flash Point >100 °C (PMCC)

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 Applicable

Oxidising Properties Not Available

Initial boiling point and boiling range Not Available Relative density 1.1 (Water = 1)

Melting/Freezing Point Not Available

Other Information Taste: Not Available Gas group: Not Available VOC g/L: Not Available

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.

Conditions to Avoid See section 7

Incompatible materials See section 7

Hazardous Decomposition Products See section 5

Possibility of hazardous reactions See section 7

11. TOXICOLOGICAL INFORMATION

Toxicology Information

Epirez Epoxy Electrical Maintenance Kit [324A] Resin TOXICITY: Not Available IRRITATION: Not Available

Bisphenol A/diglycidyl ether resin, liquid TOXICITY: Dermal (rat) LD50: >800 mg/kg[1] Oral (rat) LD50: 13447 mg/kg[1] IRRITATION: Eye (rabbit): 100mg - Mild

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

BISPHENOL A/DIGLYCIDYL ETHER RESIN, LIQUID

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.

The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics

Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable differences in activity. Several derivatives of BPA exhibited significant thyroid hormonal activity towards rat pituitary cell line GH3, which releases growth hormone in a thyroid hormone-dependent manner. However, BPA and several other derivatives did not show such activity.

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

In mice, dermal application of bisphenol A diglycidyl ether (BADGE) (1, 10, or 100 mg/kg) for 13 weeks produced mild to moderate chronic active dermatitis. At the high dose, spongiosis and epidermal micro abscess formation were observed.

In rats, dermal application of BADGE (10, 100, or 1000 mg/kg) for 13 weeks resulted in a decrease in body weight at the high dose. The no-observable effect level (NOEL) for dermal exposure was 100 mg/kg for both sexes.

Foetoxicity has been observed in animal studies Oral (rabbit, female) NOEL 180 mg/kg (teratogenicity; NOEL (maternal 60 mg/kg

Acute Toxicity: Data Not Available to make classi

Ingestion

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

Inhalation

Not normally a hazard due to non-volatile nature of product.

Skin

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

This material can cause inflammation of the skin on contact in some persons.

Epoxy materials may cause allergic and/or contact dermatitis responses, which may occur on exposure or may become apparent only after repeated exposures. Sensitisation is possible. Photoallergic dermatitis may result from contact with the material. This type of response can be elicited only in individuals who have been previously allergically sensitised to the chemical agent and appropriate radiation.

The material may accentuate any pre-existing dermatitis condition

Eye

This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.

Skin corrosion/irritation

Data required to make classification available

Serious eye damage/irritation

Data required to make classification available

Mutagenicity

Data Not Available to make classification

Respiratory sensitisation

Data required to make classification available

Skin Sensitisation

Data required to make classification available

Carcinogenicity

Data Not Available to make classification

Reproductive Toxicity Data Not Available to make classification

STOT-single exposure Data Not Available to make classification

STOT-repeated exposure Data Not Available to make classification

Aspiration Hazard

Data Not Available to make classification

Chronic Effects

Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

NOT AVAILABLE

Ingredient: bisphenol A/diglycidyl ether resin, liquid Endpoint: LC50 Test Duration (hr): 96 Effect: Not Available Value: 1.2mg/L Species: Fish BCF: Not Available

Ingredient: bisphenol A/diglycidyl ether resin, liquid Endpoint: EC50 Test Duration (hr): 48 Effect: Not Available Value: 1.1mg/L Species: Crustacea BCF: Not Available

Ingredient: bisphenol A/diglycidyl ether resin, liquid Endpoint: EC50 Test Duration (hr): 72 Effect: Not Available Value: 9.4mg/L Species: Algae or other aquatic plants BCF: Not Available

Ingredient: bisphenol A/diglycidyl ether resin, liquid Endpoint: EC50 Test Duration (hr): 48 Effect: Not Available Value: 1.7mg/L Species: Crustacea BCF: Not Available

Ingredient: bisphenol A/diglycidyl ether resin, liquid Endpoint: NOEC Test Duration (hr): 504 Effect: Not Available Value: 0.3mg/L Species: Crustacea BCF: Not Available

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites. DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient: bisphenol A/ diglycidyl ether resin, liquid Persistence: Water/Soil: HIGH Persistence: Air: HIGH

Mobility Ingredient: bisphenol A/ diglycidyl ether resin, liquid Mobility: LOW (KOC = 51.43)

Bioaccumulative Potential

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.

14. TRANSPORT INFORMATION

U.N. Number 3082 **UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Transport hazard class(es) 9 **Packing Group** Ш **Hazchem Code** •3Z **IERG Number** 47 **Other Information** Labels Required: Marine Pollutant: Environment HAZCHEM: ·3Z Land transport (ADG) UN number: 3082 Packing group: III UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A/ diglycidyl ether resin, liquid) Environmental hazard: No relevant data Transport hazard class(es): Class: 9 Subrisk: Not Applicable Special precautions for user: Special provisions: 274 331 335 375 AU01 Limited quantity: 5 L Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in; (a) packagings; (b) IBCs; or (c) any other receptacle not exceeding 500 kg(L). - Australian Special Provisions (SP AU01) - ADG Code 7th Ed. Air transport (ICAO-IATA / DGR) UN number: 3082 Packing group: III

Environmental hazard: No relevant data Transport hazard class(es): ICAO/IATA Class: 9 ICAO / IATA Subrisk: Not Applicable ERG Code: 9L Special precautions for user: Special provisions: A97 A158 A197 Cargo Only Packing Instructions: 964 Cargo Only Maximum Qty / Pack: 450 L Passenger and Cargo Packing Instructions: 964 Passenger and Cargo Limited Quantity Packing Instructions: Y964 Passenger and Cargo Limited Maximum Qty / Pack: 30 kg G

Sea transport (IMDG-Code / GGVSee) UN number: 3082 Packing group: III UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A/ diglycidyl ether resin, liquid) Environmental hazard: Marine Pollutant Transport hazard class(es): IMDG Class: 9 IMDG Subrisk: Not Applicable Special precautions for user: EMS Number: F-A, S-F Special provisions: 274 335 969 Limited Quantities: 5 L

Transport in bulk according to Annex II of MARPOL and the IBC code: Epirez Epoxy Electrical Maintenance Kit [324A] Resin

15. REGULATORY INFORMATION

Regulatory information

BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID(25068-38-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS Australia Hazardous Substances Information System - Consolidated Lists Australia Inventory of Chemical Substances (AICS)

National Inventory: Australia - AICS Status: Y

National Inventory: Canada - DSL Status: Y

National Inventory: Canada - NDSL Status: N (bisphenol A/ diglycidyl ether resin, liquid)

National Inventory: China - IECSC Status: Y

National Inventory: Europe - EINEC / ELINCS / NLP Status: Y

National Inventory: Japan - ENCS Status: N (bisphenol A/ diglycidyl ether resin, liquid)

National Inventory: Korea - KECI Status: Y

National Inventory: New Zealand - NZIoC

Status: Y

National Inventory: Philippines - PICCS Status: Y

National Inventory: USA - TSCA Status: Y

Legend:

Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

Ingredients with multiple cas numbers: Name: bisphenol A/ diglycidyl ether resin, liquid CAS No: 25068-38-6, 25085-99-8

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.

Poisons Schedule

S5

16. OTHER INFORMATION

Other Information Version No: 6.1.1.1 Safety Data Sheet according to WHS and ADG requirements Initial Date: Not Available S.GHS.AUS.EN

END OF SDS

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