

SAFETY DATA SHEET



1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

Name: PL-3

Company/undertaking identification:

Registered company name: VISHAY MEASUREMENTS GROUP UK LTD Address: Stroudly Road Basingstoke Hampshire RG24 8FW ENGLAND Telephone: +44 (0) 1256 462131 Fax: +44 (0) 1256 471441 Email : vmm.us@vishaymg.com

Emergency telephone: (00-1) 703-527-3887.

Association/Organisation: CHEMTREC.

2 - HAZARDS IDENTIFICATION

This product is not classed as flammable. Refer to the recommendations regarding the other products present on the site Possibility of irritation to the eyes and skin.

Possibility of skin sensitisation. The preparation may also irritate the skin and prolonged contact may aggravate this effect.

Possibility of category three carcinogenic effects.

Possibility of category three mutagenic effects.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Preparation classification:





Dangerous for the environment

| R 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
|---------|---|
| R 43 | May cause sensitisation by skin contact. |
| R 36/38 | Irritating to eyes and skin. |
| R 40 | Limited evidence of a carcinogenic effect. |
| R 68 | Possible risk of irreversible effects. |
| | Contains epoxy constituents. See information supplied by the manufacturer. |

3 - COMPOSITION/INFORMATION ON INGREDIENTS

Full text of risk phrases appearing in section 3: see section 16.

Hazardous substances present on their own:

(present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state)

| | | | | | | , |
|--------------|-----------|-----------|----------------------|-------|----------------------------------|-----------------|
| INDEX | CAS | EC | Name | Symb. | R: | % |
| 603-039-00-7 | 2426-08-6 | 219-376-4 | BUTYL GLYCIDYL ETHER | Xn | 10 37 40.C3 43 52/53 68 20/22 | 2.5 <= x % < 10 |

Other substances representing a hazard:

| INDEX | CAS | EC | Name | Symb. | R: | % |
|--------------|------------|-----------|---|-------|----------------|-----------------|
| 603-074-00-8 | 25068-38-6 | 500-033-5 | REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDR IN) EPOXY RESIN (NUMBER | Xi N | 36/38 43 51/53 | 50 <= x % < 100 |
| | | | AVERAGE MOLECULAR WEIGHT < 700) | | | |

Substances present at a concentration below the minimum danger threshold:

No known substance in this category present.

Other substances with occupational exposure limits:

No known substance in this category present.

4 - FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing in an unconscious person.

In the event of exposure by inhalation:

If a large quantity is inhaled, move the patient into the fresh air and keep him/her warm and still.

In the event of splashes or contact with eyes:

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

Refer the patient to an ophthalmologist, in particular if there is any redness, pain or visual impairment.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

DO NOT use solvents or thinners.

In the event of swallowing:

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Keep still. DO NOT induce vomiting.

Call a doctor immediately and show him the label.

5 - FIRE-FIGHTING MEASURES

Not relevant.

Special protective equipment for fire-fighters:

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid any contact with the skin and eyes.

Consult the safety measures listed under headings 7 and 8.

Environmental precautions:

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Use drums to dispose of waste recovered in accordance with applicable regulations (see heading 13).

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Methods for cleaning up:

Clean preferably with a detergent, do not use solvents

7 - HANDLING AND STORAGE

The regulations relating to storage premises apply to workshops where the product is handled.

Anyone with a history of skin sensitisation must on no account handle such products

Handling:

Handle in well-ventilated areas.

Fire prevention:

Prevent access by unauthorised personnel.

Recommended equipment and procedures:

For personal safety, see §8.

Observe precautions stated on label and also industrial safety regulations

Packages which have been opened must be reclosed carefully and stored in an upright position

Avoid contact of product with the skin and eyes

Prohibited equipment and procedures:

Smoking, eating and drinking are prohibited in premises where the preparation is used

Never open the packages under pressure

Storage:

Keep the container tightly closed in a dry place.

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The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Use personal protection equipment as per Directive 89/686/EEC.

Anyone with a history of skin sensitisation must on no account handle such products.

Technical measures:

Ensure adequate ventilation, if possible with extractor fans at work posts and appropriate general extraction.

If this ventilation is insufficient to maintain the concentration of solvent vapors below the exposure limits, wear breathing apparatus

Exposure limit values per INRS ED 984:

| France | VME-ppm: | VME-mg/m3: | VLE-ppm: | VLE-mg/m3: | Notes: | TMP N°: |
|------------------|--------------------|------------|------------|-------------|------------|---------|
| 2426-08-6 | 25 | 135 | - | - | C3.M3 | - |
| Exposure limit v | alues (2003-2006): | | | | | |
| Switzerland | VME-mg/m3: | VME-ppm: | VLE-mg/m3: | VLE-ppm: | Temps: | RSB: |
| 2426-08-6 | 135 mg/m3 | 25 ppm | 270 mg/m3 | 50 ppm | 4x15 | RS |
| ACGIH/TLV | TWA: | STEL: | Ceiling: | Definition: | Criterion: | |
| 2426-08-6 | 3 ppm | - | - | - | - | |

Respiratory protection:

Where workers encounter concentrations higher than the exposure limits, they must wear suitable, approved masks.

Hand protection:

Protective creams may be used for exposed skin, but they should not be applied after contact with the product.

Due to the solvents present, it is recommended that polyvinyl alcohol or nitrile rubber gloves be worn

Eye and face protection:

Avoid contact with eyes.

Wear safety goggles.

Provide eye washes in workshops where the product is constantly handled

Skin protection:

For further information, see § 11 of S.D.S. - Toxicological information.

9 - PHYSICAL AND CHEMICAL PROPERTIES

| General information: | |
|---|---------------------------|
| Physical state: | fluid liquid |
| Important health, safety and environmental information | n: |
| pH of the substance or preparation: | not relevant. |
| The pH is impossible to measure or its value is not relev | ant. |
| Boiling point/boiling range: | not specified. |
| Flash point interval: | Flash point > 60°C |
| Flash point: | 73.30 °C. |
| Vapour pressure: | Below 110 kPa (1.10 bar). |
| Density: | >1 |
| Density: | 1.13 |
| Water solubility: | Insoluble. |
| Vapour density: | > 1 (Air=1) |
| Other information: | |
| melting point/melting range: | not specified. |
| Self-ignition temperature: | not specified. |
| Decomposition point/decomposition range : | not specified. |
| | |

10 - STABILITY AND REACTIVITY

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and nitrogen oxide

Materials to avoid:

Keep away from oxidising agents and also highly acidic or alkaline materials.

11 - TOXICOLOGICAL INFORMATION

No data is available regarding the preparation itself.

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Exposure to vapors from solvents contained in the preparation beyond the exposure limits stated may produce effects harmful to health, such as: Irritation of mucous membrane and respiratory system, kidneys, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness. Prolonged or repeated contact with the preparation may strip the skin of its natural oil and thus cause non-allergic dermatitis on contact and absorption through the epidermis.

Splashes in the eyes may cause irritation and reversible damage

It is generally agreed that substances contained carry the risk of noxious, irreversible, non-lethal effects after a single exposure

It is generally agreed that substances contained are likely to cause the appearance of major lesions which persist for at least twenty-four hours after application to the eye of an animal

and are likely to cause significant irritation which lasts for at least twenty four hours after application to the healthy, unbroken skin of an animal for a period of up to 4 hours.

It is generally agreed that substances contained are likely to cause, among certain predisposed subjects, a sensitisation reaction by cutaneous route

On the basis of the properties of the epoxide components and toxicological data relating to similar preparations, the preparation may cause sensitisation of the skin and the respiratory organs and may also be an irritant

Constituents with a low molecular weight irritate the eyes, mucous membranes and the skin

Repeated contact with the skin may cause irritation and hypersensitisation, possibly in combination with other epoxide compounds.

It is generally agreed that substances contained are likely to cause category 3 carcinogenic effects.

It is generally agreed that substances contained are likely to cause category 3 mutagenic effects.

12 - ECOLOGICAL INFORMATION

No ecological data on the product itself is available.

The product must not be allowed to run into drains or waterways.

Ecotoxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other adverse effects:

Germany: WGK 2 (VwVwS vom 17/05/99, KBws)

13 - DISPOSAL CONSIDERATIONS

Do not pour into drains or waterways.

Waste:

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

14 - TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2009 - IMDG 2008 - ICAO/IATA 2009). Classification:



Pollutants to the aquatic environment:



UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

| ADR/RID | Class | Code | Pack gr. | Label | Ident. | LQ | Provis. | EQ | Cat. | Tunnel |
|---------|-------|---------|----------|-------|--------|---------|---------|----|------|--------|
| | 9 | M6 | III | 9 | 90 | LQ7 | 274 335 | E1 | 3 | E |
| | | | | | | | 601 | | | |
| IMDG | Class | 2°Label | Pack gr. | LQ | EMS | Provis. | EQ | | | |

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| | 9 | - | III | 5 L | F-A,S-F | 179 274 | E1 | | | |
|------|-------|---------|----------|----------|----------|---------|-------|----------|----|---|
| | | | | | | 335 909 | | | | |
| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo | note | EQ | |
| | 9 | - | III | 914 | 450 L | 914 | 450 L | A97 A158 | - | - |
| | 9 | - | III | Y914 | 30 kg G | - | - | A97 A158 | - | - |

15 - REGULATORY INFORMATION

This preparation was classified in compliance with the directive known as <All preparations> 1999/45/EC and its adaptations In addition directive 2004/73/EC with the 29° adaptation of directive 67/548/EEC (Hazardous substances) have been taken into account. This product is not classed as flammable.

Contains epoxide compounds - refer to the information supplied by the manufacturer. This information is found on this safety data sheet. **Preparation classification:**

Preparation classification:





Dangerous for the environment

Contains:

| 219-376-4 | BUTYL GLYCIDYL ETHER |
|-----------------|---|
| 500-033-5 | REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT < 7 |
| Particular haza | ards associated with the preparation and safety recommendations: |
| R 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R 43 | May cause sensitisation by skin contact. |
| R 36/38 | Irritating to eyes and skin. |
| R 40 | Limited evidence of a carcinogenic effect. |
| R 68 | Possible risk of irreversible effects. |
| | Contains epoxy constituents. See information supplied by the manufacturer. |
| S 36/37 | Wear suitable protective clothing and gloves. |
| S 61 | Avoid release to the environment. Refer to special instructions/Safety data sheets. |
| S 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S 39 | Wear eye/face protection. |
| S 60 | This material and its container must be disposed of as hazardous waste. |
| S 24 | Avoid contact with skin. |

Particular provisions:

Germany: WGK 2 (VwVwS vom 17/05/99, KBws)

NFPA 704 Label: Health=2 Flammability=3 Instability=1 Special Hazards=none

16 - OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties

Full text of risk phrases appearing in section 3:

| R 10 | Flammable. |
|---------|---|
| R 20/22 | Harmful by inhalation and if swallowed. |
| R 36/38 | Irritating to eyes and skin. |
| R 37 | Irritating to respiratory system. |
| R 40.C3 | Limited evidence of a carcinogenic effect. |
| R 43 | May cause sensitisation by skin contact. |
| R 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R 52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R 68 | Possible risk of irreversible effects. |