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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Name of the product: **CHS-EPOXY 498**

Product identifier: Modified liquide low molecular weight epoxy resin.

Registration Number of the substance: Mix

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For impregnating, encapsulating, and potting operations in electronic applications.

Uses advised against: There are no uses advised against identified.

1.3. Details of the supplier of the safety data sheet

Company/undertaking:

Spolek pro chemickou a hutní výrobu, akciová společnost
Revoluční 1930/86, Ústí nad Labem 400 32, Czech Republic
Tel: +420 477 161 111 Fax.: +420 477 163 333
Responsible person: msds@spolchemie.cz

1.4. Emergency telephone number

CZ: +420 477 162 094 / EN: +420 476 709 826 non-stop service

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

According to 1272/2008/EC: Skin Irrit.2: H315, Skin Sens.1: H317, Eye Irrit.2: H319, Aquatic Chronic 2: H411

According to 67/548/EEC, 1999/45/EC: Xi; N, R36/38, R43, R51/53, S2, S24, S28, S37/39, S61

Hazards to man and the environment: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

Full text of H, EUH, P, R and S- Phrases is listed in point 16.

2.2. Label elements



WARNING

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

Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

CAS: -

Index: -

Contents: 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane (number average molecular weight <=700), oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Obligatory phrasing: Not determined.

2.3. Other hazards

Not determined.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Identifier | CAS/ EINECS/ Registration number | Classification 67/548/EHS | Classification 1272/2008/ES | Content % |
|--|--|-------------------------------|---|--------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane (number average molecular weight <=700) | 25068-38-6/ 500-033-5/ 01-2119456619-26-0018 | Xi; R36/38 - R43 N; R51/53 | Skin Irrit.2: H315, Skin Sens.1: H317, Eye Irrit.2: H319, Aquatic Chronic 2: H411 | 50-100 |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs | 68609-97-2/ 271-846-8/ 01-2119485289-22-xxxx | Xi; R38 R43 | Skin Irrit.2: H315, Skin Sens.1: H317 | 10-40 |

Full text of H, EUH, P, R a S- Phrases is listed in point 16.

4. FIRST AID MEASURES

4.1. Description of first aid measures

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

After inhalation: Remove victim to fresh air, and remove impregnated clothing (change clothing). Seek medical advice.

After skin contact: Remove soiled clothing and rinse affected area with clear warm (30-32°C) water as intensively as possible. Obtain medical attention.

After eye contact: Rinsing should be undertaken at the earliest possible time with water jet, and for a sufficiently long time, but for at least 20 minutes; obtain medical attention and continue rinsing also while transporting victim.

After ingestion: Wash out mouth with water. Obtain medical attention without delay. DO NOT INDUCE VOMITING.

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

Not determined.

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

Not determined.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water fog, dry chemical media, carbon dioxide, foam.

Extinguishing media to be avoided: High pressure water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces oxides of carbon, aldehydes, acids and unidentified mixtures of organic compounds.

5.3. Advice for firefighters

Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Protective clothing including eye, respiratory passages and hand protection.

6.2. Environmental precautions

Avoid release of product or components to the environment, sewers and surface water or soil.

6.3. Methods and material for containment and cleaning up

Dam up spilled product, contain with inert material (e. g. kieselguhr, sand). Place into an impervious container and dispose of at hazardous chemical waste collection point or incinerate in a furnace where permitted under local regulations.

6.4. Reference to other sections

Additional advice : Refer to section 8, 13.

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7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Observe working instructions. Ensure good ventilation and local exhaust at the workplace. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed storerooms. Keep away from sources of ignition and other kinds of substances. Store in the original containers kept tightly closed. Storerooms should be well-ventilated, dry, provided with a source of drinking water supply. Storage temperature should be kept between +5 and +25 °C. Prevent access of unauthorised personnel.

7.3. Specific end use(s)

Store separately from oxidizing agents.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. Control parameters

Not determined.

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Local exhaust recommended.

8.2.2 Occupational exposure controls

Respiratory protection: A filter against organic vapours should be worn.

Hand protection: Protective rubber gloves.

Eye / face protection: Safety goggles or safety shield.

Skin protection: Twilled fabric clothing, footwear.

8.2.3 Environmental exposure controls

Avoid release of product or components to the environment, sewers and surface water or soil.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|---|------------------------|
| Physical State: | Liquid. |
| Colour: | Clear. |
| Odour: | Slight characteristic. |
| pH: | Not determined. |
| Boiling point / boiling range (°C): | Not determined. |
| Melting point / freezing point (°C): | Not applicable. |
| Flash point (°C): | > 200 |
| Flammability (solid, gas): | Not determined. |
| Explosive properties: | Not explosive. |
| Oxidising properties: | Not determined. |
| Vapour pressure: | Not determined. |
| Relative density (g/cm³): | 1,10 (20°C) |
| Solubility: | Not determined. |
| Water solubility (g/l): | Not miscible. |
| Partition coefficient: n-octanol/water: | Not determined. |
| Auto-ignition temperature (°C): | Not determined. |
| Viscosity: | 500 - 700 mPa.s |
| Vapour density: | Not determined. |
| Evaporation rate: | Not determined. |

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Other information: Not determined.

9.2. Other information

Miscibility: Not determined.

Fat solubility (oil to be specified): Not determined.

Conductivity: Not determined.

Gas group: Not determined.

10. STABILITY AND REACTIVITY**10.1. Reactivity**

Not determined.

10.2. Chemical stability

Not determined.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

Elevated temperature.

10.5. Incompatible materials

Strong oxidising materials, strong Lewis or mineral acids, strong mineral and organic bases.

10.6. Hazardous decomposition products

Oxides of carbon, aldehydes, acids and unidentified mixtures of organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Akute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Irritating to skin.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: May cause sensitisation by skin contact.

Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT- single exposure: Based on available data, the classification criteria are not met.

STOT- repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Other information

Not determined.

12. ECOLOGICAL INFORMATION**12.1. Toxicity**

LC 50 (96 h, fish, mg/l): Not determined.

EC 50 (48 h, daphnia, mg/l): Not determined.

IC 50 (72 h, algae, mg/l): Not determined.

Other hazards: Classification of the mixture on the basis of information about components: Dangerous for the environment chronically - Category 2

Water hazard classification: WGK 2

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12.2. Persistence and degradability

The product is with difficulty biodegradable.

COD: Not determined.

BOD5: Not determined.

12.3. Bioaccumulative potential

Not determined.

12.4. Mobility in soil

Not determined.

12.5. Results of PBT and vPvB assessment

Individual components of the mixture are not considered as PBT and vPvB substances.

12.6. Other adverse effects

No effect known.

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Uncured residues (waste of category N, waste code 08 04 13) should be placed into impervious containers and disposed of by incineration in a suitable unit for disposal of industrial waste, cured residues (waste of category O, waste code 08 04 10) should be placed into impervious containers and rendered harmless either by combustion in suitable incinerators for industrial waste, or disposed of at a licensed waste disposal facility.

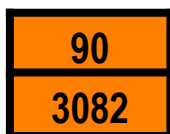
Waste of category N, waste type code 15 01 10. Properly emptied packagings should be disposed of like scrap iron. When treating empty containers, do not use processes applying naked flames (gas welding).

Handling with wastes is regulated by Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

Handling with wastes is regulated by Czech law 185/2001 Sb.

14. TRANSPORT INFORMATION**14.1. UN number, 14.2. UN proper shipping name, 14.3. Transport hazard class(es), 14.4. Packing group**

3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Modified liquide low molecular weight epoxy resin., 9, III

**14.5. Environmental hazards**

Marine pollutant.

14.6. Special precautions for user

Remarks:

EmS: F-A/S-F

Other transport information: ADR/RID, IMDG, IATA

Tunnel restriction codes: (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Spolek pro chemickou a hutní výrobu, akciová společnost

Revoluční 1930/86

400 32 Ústí nad Labem, Czech Republic

The firm is registered in Ústí nad Labem court in section B, file 47.

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classification, packaging and labelling of dangerous substances.

Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods.

Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations.

Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.

Other regulatory information:

Not determined.

15.2. Chemical safety assessment

The chemical safety report has not been prepared yet.

16. OTHER INFORMATION**H, EUH, P, R, S - Phrases wording**

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.

P262 Do not get in eyes, on skin, or on clothing.

P273 Avoid release to the environment.

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

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.

R36/38 Irritating to eyes and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S2 Keep out of the reach of children.

S24 Avoid contact with skin.

S28 After contact with skin, wash immediately with plenty of water.

S37 Wear suitable gloves.

S37/39 Wear suitable gloves and eye/face protection.

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S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional information

CAS Number(1) 25068-38-6 / 68609-97-2

Europe EINECS NLP # 500-033-5 / 271-846-8

United States TSCA 25068-38-6 / 68609-97-2

Canada DSL 25068-38-6 / 68609-97-2

Australia AICS 25068-38-6 / 68609-97-2

Philippines PICCS 25068-38-6 / 68609-97-2

China SEPA 25068-38-6 / 68609-97-2

Revision data

Changes made in accordance with Regulation (EC) No 1272/2008 and Regulation (EC) No 453/2010 .