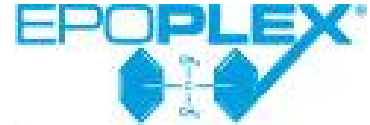


Safety Data Sheet
Prepared in Accordance with HCS 29
C.F.R. 1910.1200



1. Identification of the Substance/Mixture and the Company/Undertaking

- 1.1 Product Identifier** 9250B0-9999 **Revision Date:** 04/16/2019
Product Name: Epoplex LS65qs Hardener **Supersedes Date:** New SDS
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Hardener for 2 components coatings - Industrial use.
- 1.3 Details of the supplier of the safety data sheet**
- Manufacturer:** EPOPLEX, A DIVISION OF STONCOR GROUP, INC
1000 EAST PARK AVENUE
MAPLE SHADE, NJ 08052

+1 856 7797500 (US)
- Datasheet Produced by:** ehs@stonhard.com
- 1.4 Emergency telephone number:** CHEMTREC 1-800-424-9300 (Inside US)
CHEMTREC +1 703 5273887 (Outside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 1
Hazardous to the aquatic environment, Acute, category 1
Hazardous to the aquatic environment, Chronic, category 1
Reproductive Toxicity, category 2
STOT, single exposure, category 3, RTI
Skin Corrosion, category 1
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

Diethylenetriamine, 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine, 4-nonylphenol, branched

HAZARD STATEMENTS

| | | |
|---|--------|---|
| Acute Toxicity, Oral, category 4 | H302 | Harmful if swallowed. |
| Acute Toxicity, Dermal, category 4 | H312 | Harmful in contact with skin. |
| Skin Corrosion, category 1 | H314-1 | Causes severe skin burns and eye damage. |
| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
| Acute Toxicity, Inhalation, category 1 | H330-1 | Fatal if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation. |
| Reproductive Toxicity, category 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Hazardous to the aquatic environment, Acute, category 1 | H400 | Very toxic to aquatic life. |
| Hazardous to the aquatic environment, Chronic, category 1 | H410 | Very toxic to aquatic life with long lasting effects. |

PRECAUTION PHRASES

| | |
|----------------|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P284 | Wear respiratory protection. |
| P301+310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P301+330+331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P302+352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P308+313 | IF exposed or concerned: Get medical advice/attention. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P352 | Wash with plenty of soap and water. |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |
| P403+233 | Store in a well-ventilated place. Keep container tightly closed. |

2.3 Other hazards

This product contains a component that is toxic by inhalation when aerosolized or sprayed. Please refer to section 11 of the SDS for toxicity information. Review the toxicity against the intended use. If product is not being aerosolized or sprayed, the inhalation toxicity may not be applicable.

This product is classified as a "Acute Toxicity, Inhalation, Category 1" due to containing Diethylenetriamine (CAS # 111-40-0). Numerous Industrial Hygiene air monitoring studies have been conducted by Stonhard to determine actual levels of exposure to Diethylenetriamine during product installations to application personnel. In each case levels of exposure were found to be well below the ACGIH Threshold Limit Value and NIOSH Recommended Exposure Limit of 1 ppm.

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>%</u> |
|----------------|--|----------|
| 84852-15-3 | 4-nonylphenol, branched | 25 - <50 |
| 111-40-0 | Diethylenetriamine | 25 - <50 |
| 31326-29-1 | 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | 25 - <50 |

| <u>CAS-No.</u> | <u>GHS Symbols</u> | <u>GHS Hazard Statements</u> | <u>M-Factors</u> |
|----------------|-------------------------|------------------------------|------------------|
| 84852-15-3 | GHS05-GHS07-GHS08-GHS09 | H302-314-361-400-410 | 0 |
| 111-40-0 | GHS05-GHS06 | H302-312-314-317-330-335 | 0 |
| 31326-29-1 | GHS07 | H302-312 | 0 |

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe burns. Harmful in contact with skin and if swallowed. Irritating to eyes and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage**7.1 Precautions for safe handling**

INSTRUCTIONS FOR SAFE HANDLING: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection**8.1 Control parameters****Ingredients with Occupational Exposure Limits (US)**

| <u>Name</u> | <u>CAS-No.</u> | <u>ACGIH TWA</u> | <u>ACGIH STEL</u> | <u>ACGIH Ceiling</u> |
|--|----------------|------------------|-------------------|----------------------|
| 4-nonylphenol, branched | 84852-15-3 | | | |
| Diethylenetriamine | 111-40-0 | 1 PPM | | |
| 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | 31326-29-1 | | | |

| <u>Name</u> | <u>CAS-No.</u> | <u>OSHA PEL</u> | <u>OSHA STEL</u> |
|--|----------------|-----------------|------------------|
| 4-nonylphenol, branched | 84852-15-3 | | |
| Diethylenetriamine | 111-40-0 | 4 MGM3, 1 PPM | |
| 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | 31326-29-1 | | |

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. Respirator with filter for organic vapor.

EYE PROTECTION: Safety glasses.

HAND PROTECTION: Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|---|---------------------------------|
| Appearance: | MOBILE LIQUID / AMBER |
| Physical State | LIQUID |
| Odor | FAINT ODOR |
| Odor threshold | Not determined |
| pH | NO DATA |
| Melting point / freezing point (°C) | Not determined |
| Boiling point/range (°C) | N.D. - N.D. |
| Flash Point, (°F / °C) | >236F / >113C |
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Not determined |
| Upper/lower flammability or explosive limits | NOT DETERMINED - NOT DETERMINED |
| Vapour Pressure | 2.17 mmHg @ 21C |
| Vapour density | NO DATA |
| Relative density | Not determined |
| Solubility in / Miscibility with water | SLIGHT |
| Partition coefficient: n-octanol/water | Not determined |
| Auto-ignition temperature (°C) | Not determined |
| Decomposition temperature (°C) | Not determined |
| Viscosity | NOT DETERMINED |
| Explosive properties | Not determined |
| Oxidising properties | Not determined |

9.2 Other information

| | |
|--------------------------|-------|
| VOC Content g/l: | 5 |
| Specific Gravity (g/cm3) | 0.000 |

10. Stability and Reactivity**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur.

10.4 Conditions to avoid

Direct sources of heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information**11.1 Information on toxicological effects****Acute Toxicity:**

| | |
|------------------|----------------|
| Oral LD50: | No information |
| Inhalation LC50: | No information |

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|--|-----------------------|--------------------|----------------------------|-----------------|-----------------------|
| 84852-15-3 | 4-nonylphenol, branched | 580 mg/kg oral rat | | | 0.000 | 0.000 |
| 111-40-0 | Diethylenetriamine | 1080 mg/kg, oral, rat | 1090 mg/kg | 10 mg/L / 1 hour, inh, rat | 0.000 | 0.000 |
| 31326-29-1 | 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | 540 mg/kg, oral (rat) | 1494 mg/kg, rabbit | | 0.000 | 0.000 |

Additional Information:

This product is classified as a "Acute Toxicity, Inhalation, Category 1" due to containing Diethylenetriamine (CAS # 111-40-0). Numerous Industrial Hygiene air monitoring studies have been conducted by Stonhard to determine actual levels of exposure to Diethylenetriamine during product installations to application personnel. In each case levels of exposure were found to be well below the ACGIH Threshold Limit Value and NIOSH Recommended Exposure Limit of 1 ppm. This product is classified as a "Reproductive Toxicity - Category 2" due to containing a substance classified as a reproductive toxin via ingestion / oral exposure route only. Normal product application methods by trained crew members would not present a risk of oral exposure or ingestion.

12. Ecological Information

12.1 Toxicity:

| | |
|-----------------------------|----------------|
| EC50 48hr (Daphnia): | No information |
| IC50 72hr (Algae): | No information |
| LC50 96hr (fish): | No information |

12.2 Persistence and degradability:

No information

12.3 Bioaccumulative potential:

No information

12.4 Mobility in soil:

No information

12.5 Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects:

No information

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>EC50 48hr</u> | <u>IC50 72hr</u> | <u>LC50 96hr</u> |
|----------------|--|------------------|------------------|------------------|
| 84852-15-3 | 4-nonylphenol, branched | .035 mg/L | .0563 mg/L | .1383 mg/l |
| 111-40-0 | Diethylenetriamine | 780 mg/l | No information | 430 mg/l |
| 31326-29-1 | 4,4' - isopropylidenediphenol oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | No information | No information | |

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

| | |
|---|--|
| 14.1 UN number | UN3267 |
| 14.2 UN proper shipping name | CORROSIVE LIQUID, BASIC, ORGANIC, n.o.s. |
| Technical name | (CONTAINS 4-NONYLPHENOL, BRANCHED, DIETHYLENETRIAMINE) |
| 14.3 Transport hazard class(es) | 8 |
| Subsidiary shipping hazard | Not applicable |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | Not applicable |
| EmS-No.: | F-A, S-B |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code | Not applicable |

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Toxicity (any route of exposure), Reproductive toxicity, Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|-------------------------|----------------|
| 4-nonylphenol, branched | 84852-15-3 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. Clean Air Act:

| | |
|------------------------------|--|
| EPA Coating Category: | TRAFFIC MARKING COATINGS |
| EPA VOC Content Limit (g/l): | 150 |
| Product VOC Content (g/l) | 5.0 |
| Thinning Recommendations: | The coating is to be applied without thinning. |
| Application Recommendations: | FOR PROFESSIONAL USE ONLY. |

* As per the federal EPA definition for coating categories in 40 CFR 59.401.

** Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

U.S. State Regulations: As follows -**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|------------------------|----------------|
| No Chemical Name Found | |

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

California Proposition 65:

No Proposition 65 Chemicals exist in this product.

International Regulations: As follows -*** Canadian DSL:**

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

| | |
|------|---|
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Reasons for revision

This Safety Data Sheet (SDS) has been revised to meet updated national hazard communication standards which have adopted the provisions of the UN GHS system. There have been both formatting and content changes based on the GHS classification (if applicable), Please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

| | |
|--------|---|
| CLP | Classification, Labeling & Packaging Regulation |
| EC | European Commission |
| EU | European Union |
| US | United States |
| CAS | Chemical Abstract Service |
| EINECS | European Inventory of Existing Chemical Substances |
| REACH | Registration, Evaluation, Authorization of Chemicals Regulation |
| GHS | Globally Harmonized System of Classification and Labeling of Chemicals |
| LTEL | Long term exposure limit |
| STEL | Short term exposure limit |
| OEL | Occupational exposure limit |
| ppm | Parts per million |
| mg/m3 | Milligrams per cubic meter |
| TLV | Threshold Limit Value |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| OSHA | Occupational Safety & Health Administration |
| PEL | Permissible Exposure Limits |
| VOC | Volatile organic compounds |
| g/l | Grams per liter |
| mg/kg | Milligrams per kilogram |
| N/A | Not applicable |
| LD50 | Lethal dose at 50% |
| LC50 | Lethal concentration at 50% |
| EC50 | Half maximal effective concentration |
| IC50 | Half maximal inhibitory concentration |
| PBT | Persistent bioaccumulative toxic chemical |
| vPvB | Very persistent and very bioaccumulative |
| EEC | European Economic Community |
| ADR | International Transport of Dangerous Goods by Road |
| RID | International Transport of Dangerous Goods by Rail |
| UN | United Nations |
| IMDG | International Maritime Dangerous Goods Code |
| IATA | International Air Transport Association |
| MARPOL | International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 |
| IBC | International Bulk Container |
| RTI | Respiratory Tract Irritation |
| NE | Narcotic Effects |

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.