# 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**

9175B9

**Revision Date:** 03/07/2024

**Supersedes Date:** 01/05/2023

**Product Name:** EPOPLEX LS90 ISO-HV

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

Base component of 2 components coating - Industrial use. For use by appropriately trained applicators. Advised against: others than recommended

**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:**

+1 703-741-5970 - North America
+1 800-424-9300
+55 11 4349 1359 - South America
+52 55 8526 4930 - Central America
+44 20 3885 0382 - Middle East, Eastern Europe, Western Europe, and Africa
+65 3163 8374 - Asia, South Asia, And Oceania

## 2. Hazard Identification

**2.1 Classification of the substance or mixture**

Acute Toxicity, Inhalation, category 1
Skin Sensitizer, category 1
STOT, single exposure, category 3, RTI

### 2.2 Label elements

**Symbol(s) of Product**

**Signal Word**

Danger

**Named Chemicals on Label**

Hexamethylene diisocyanate, hexamethylene diisocyanate, oligomers

**HAZARD STATEMENTS**

| | | |
|---|---|---|
| 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. |

**PRECAUTION PHRASES**

| | |
|---|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| 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. |
| 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. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P403+233 | Store in a well-ventilated place. Keep container tightly closed. |

### 2.3 Other hazards

No Information

**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**

| Name According to EEC | EINEC No. | CAS-No. | % | Classifications | |
|---|---|---|---|---|---|
| hexamethylene diisocyanate, oligomers | 931-274-8 | 28182-81-2 | 75-100 | H317-330-335 | Acute Tox. 1 Inhalation, Skin Sens. 1, STOT SE 3 RTI |
| Hexamethylene diisocyanate | 212-485-8 | 822-06-0 | 0.1 - <1.0 | H302-311-315-317-3 19-330-334-335 | Acute Tox. 1 Inhalation, Acute Tox. 3 Dermal, Acute Tox. 4 Oral, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1, STOT SE 3 RTI |

| CAS-No. | M-Factors |
|---|---|
| 28182-81-2 | |

**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:** 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

Harmful by inhalation, 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

Heating or fire can release toxic gas.

### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. ABC powder. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Water reactive.

## 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. Keep the container open.

### 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 8 and 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. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.
**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:** Keep from any possible contact with water.
**STORAGE CONDITIONS:** Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

### 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)**

| Name | CAS-No. | ACGIH TWA | ACGIH STEL | ACGIH Ceiling |
|---|---|---|---|---|
| hexamethylene diisocyanate, oligomers | 28182-81-2 | | | |
| Hexamethylene diisocyanate | 822-06-0 | 0.005 PPM | | |

| Name | CAS-No. | OSHA PEL | OSHA STEL |
|---|---|---|---|
| hexamethylene diisocyanate, oligomers | 28182-81-2 | | |
| Hexamethylene diisocyanate | 822-06-0 | | |

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

### 8.2 Exposure controls

**Personal Protection**
**RESPIRATORY PROTECTION:** Respirator with filter for organic vapor.
**EYE PROTECTION:** Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses. Safety goggles.
**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:** | CLEAR/PALE YELLOW |
| **Physical State** | LIQUID |
| **Odor** | ODORLESS |
| **Odor threshold** | Not determined |
| **pH** | N/A |
| **Melting point / freezing point (°C)** | Not determined |
| **Boiling point/range (°C)** | N.D. - N.D. |

| | |
|---|---|
| **Flash Point, (°F / °C)** | 385F / 196C |
| **Evaporation rate** | Not determined |
| **Flammability (solid, gas)** | Not determined |
| **Upper/lower flammability or explosive limits** | N/A - N/A |
| **Vapour Pressure** | 4.7X10^-7 mmHg @ 20C |
| **Vapour density** | NO DATA |
| **Relative density** | Not determined |
| **Solubility in / Miscibility with water** | REACTS WITH WATER |
| **Partition coefficient: n-octanol/water** | Not determined |
| **Auto-ignition temperature (°C)** | Not determined |
| **Decomposition temperature (°C)** | Not determined |
| **Viscosity** | 2500 mPa.s |
| **Explosive properties** | Not determined |
| **Oxidising properties** | Not determined |

**9.2 Other information**

| | |
|---|---|
| **VOC Content g/l:** | 10.0 |
| **Specific Gravity (g/cm3)** | 1.119 |

## 10. Stability and Reactivity

**10.1 Reactivity**
No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**
Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Stable under normal conditions.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation does not occur.

**10.4 Conditions to avoid**
Keep from any possible contact with water.

**10.5 Incompatible materials**
Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials. Contact with water or moist air liberates irritating gas.

**10.6 Hazardous decomposition products**
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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:**

| CAS-No. | Chemical Name | Oral LD50 | Dermal LD50 | Vapor LC50 | Gas LC50 | Dust/Mist LC50 |
|---|---|---|---|---|---|---|
| 28182-81-2 | hexamethylene diisocyanate, oligomers | 5000 mg/kg, oral, rat | >2000 mg/kg, rabbit | 0.39 mg/l, 4 h, rat | | |
| 822-06-0 | Hexamethylene diisocyanate | 746 mg/kg, rat | 959 mg/kg, rat | 0.124 mg/l, 4 h, rat | 0.000 | 0.000 |

**Additional Information:**

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

## 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

| CAS-No. | Chemical Name | EC50 48hr | IC50 72hr | LC50 96hr |
|---|---|---|---|---|
| 28182-81-2 | hexamethylene diisocyanate, oligomers | 127 mg/l | 199 mg/l | >100 mg/l |
| 822-06-0 | Hexamethylene diisocyanate | No information | No information | 82.8 mg/l |

## 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. This product does not contain any substances listed in Table 1 of 40 CFR 261.24. Please refer to Section 3 of this Safety Data Sheet (SDS) for a listing of chemical components in this product.

## 14. Transport Information

| | | |
|---|---|---|
| **14.1** | **UN number** | N/A |
| **14.2** | **UN proper shipping name** | Not regulated for transport |
| | **Technical name** | Not applicable |
| **14.3** | **Transport hazard class(es)** | N/A |
| | **Subsidiary shipping hazard** | Not applicable |
| **14.4** | **Packing group** | Not applicable |
| **14.5** | **Environmental hazards** | Not applicable |
| **14.6** | **Special precautions for user** | Not applicable |
| | **EmS-No.:** | N/A |
| **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), 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:

| Chemical Name | CAS-No. | % |
|---|---|---|
| Hexamethylene diisocyanate | 822-06-0 | 0.3 |

### 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) | 10.0 |
| 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.

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

### 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. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

**Reasons for revision**

Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
03 - Composition/Information On Ingredients
09 - Physical and Chemical Properties
15 - Regulatory Information
Revision Statement(s) Changed

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.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

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 |
| IMO | International Maritime Organization |
| Note P: | The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene |
| Note 10: | The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm. |

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.