SAFETY DATA SHEET

1. Identification

Product identifier MT CONCRETE SEAL
Other means of identification
   SDS number 571N-72A
   Product code HIL00492
Recommended use Concrete Floor Coating
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
   Company name HILLYARD INDUSTRIES
   Address 302 North Fourth St.
   St. Joseph, MO 64501
Contact person Regulatory Affairs
Telephone number (816) 233-1321 (Ext. 8285)
Fax (816) 383-8485
E-mail regulatoryaffairs@hillyard.com
Emergency telephone # (800) 424-9300
(Only in the event of chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals.)

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards
   Acute toxicity, inhalation Category 5
   Reproductive toxicity Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.
Label elements

Signal word Danger
Hazard statement May be harmful if inhaled. May damage fertility or the unborn child.
Precautionary statement
Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
Response If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. 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.
Storage Store locked up.
Disposal Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information Use With Adequate Ventilation. Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means to insure fresh air entry during application and drying. Do not get in eyes, on skin, or on clothing. Do not take internally.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methyl-2-Pyrrolidinone</td>
<td></td>
<td>872-50-4</td>
<td>1 - &lt; 3</td>
</tr>
<tr>
<td>2-(2-ethoxyethoxy)ethanol</td>
<td></td>
<td>111-90-0</td>
<td>1 - &lt; 3</td>
</tr>
<tr>
<td>Triethylamine</td>
<td></td>
<td>121-44-8</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

Other components below reportable levels 90 - 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors and spray mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid inhalation of vapors and spray mists. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylamine (CAS 121-44-8)</td>
<td>PEL</td>
<td>100 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylamine (CAS 121-44-8)</td>
<td>STEL</td>
<td>3 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1 ppm</td>
</tr>
</tbody>
</table>

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methyl-2-Pyrrolidinone (CAS 872-50-4)</td>
<td>TWA</td>
<td>40 mg/m3</td>
</tr>
<tr>
<td>2-(2-ethoxyethoxy)ethanol (CAS 111-90-0)</td>
<td>TWA</td>
<td>140 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methyl-2-Pyrrolidinone (CAS 872-50-4)</td>
<td>100 mg/l</td>
<td>5-Hydroxy-N-methyl-2-pyrrolidone</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Exposure guidelines

**US - California OELs: Skin designation**
Triethylamine (CAS 121-44-8) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**
Triethylamine (CAS 121-44-8) Can be absorbed through the skin.

**US WEEL Guides: Skin designation**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4) Can be absorbed through the skin.

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

**Eye/face protection**
Chemical splash goggles where there is a potential for eye contact.

**Skin protection**

- **Hand protection**
  Wear protective gloves.
- **Other**
  None normally required. If unable to avoid prolonged or repeated contact with skin, wear impervious clothing.

**Respiratory protection**
Not normally required with adequate ventilation. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
9. Physical and chemical properties

**Appearance**
- Milky emulsion

**Physical state**
- Liquid.

**Form**
- Liquid.

**Color**
- Milky white

**Odor**
- Non-objectional odor

**Odor threshold**
- Not available.

**pH**
- 7 - 8

**Melting point/freezing point**
- Not applicable / Not available

**Initial boiling point and boiling range**
- > 200 °F (> 93.3 °C)

**Flash point**
- > 200.0 °F (> 93.3 °C) Tag Closed Cup

**Evaporation rate**
- < 1 Ethyl ether = 1

**Flammability (solid, gas)**
- Not available.

**Upper/lower flammability or explosive limits**
- Explosive limit - lower (%)
  - Not available.

- Explosive limit - upper (%)
  - Not available.

**Vapor pressure**
- 17.2 mm Hg

**Vapor density**
- 1.205 Air = 1

**Relative density**
- 1.03 g/cm³

**Solubility(ies)**
- Solubility (water)
  - 100 % Complete

**Partition coefficient (n-octanol/water)**
- Not available.

**Auto-ignition temperature**
- Not available.

**Decomposition temperature**
- Not available.

**Viscosity**
- Not available.

**Other information**
- Density
  - 8.62 lb/gal

- Percent volatile
  - 74 - 75 %

- VOC (Weight %)
  - < 250 g/l

10. Stability and reactivity

**Reactivity**
- The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**
- Material is stable under normal conditions.

**Possibility of hazardous reactions**
- No dangerous reaction known under conditions of normal use.

**Conditions to avoid**
- Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**Incompatible materials**
- Strong oxidizing agents.

**Hazardous decomposition products**
- No hazardous decomposition products are known.

11. Toxicological information

**Information on likely routes of exposure**
- **Inhalation**
  - May be harmful if inhaled.

- **Skin contact**
  - No adverse effects due to skin contact are expected.

- **Eye contact**
  - Direct contact with eyes may cause temporary irritation.

- **Ingestion**
  - Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

May be harmful if inhaled.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MT CONCRETE SEAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>66210.4219 mg/kg estimated</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Mouse</td>
<td>1209.1898 mg/l, 2 Hours estimated</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>1209.1898 mg/l, 2 Hours estimated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>84.6433 mg/l, 1 Hours estimated</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>96522.9375 mg/kg estimated</td>
</tr>
<tr>
<td></td>
<td>Rabbit</td>
<td>52302.9453 mg/kg estimated</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>42117.9531 mg/kg estimated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>643.4809 ml/kg estimated</td>
</tr>
</tbody>
</table>

| **Components**                   |         |                                       |
| **1-Methyl-2-Pyrrolidinone (CAS 872-50-4)** |     |                                       |
| **Acute**                        |         |                                       |
| **Dermal**                       |         |                                       |
| LD50                             | Rabbit  | 8000 mg/kg                            |
| **Oral**                         |         |                                       |
| LD50                             | Mouse   | 5130 mg/kg                            |
|                                  | Rat     | 3914 mg/kg                            |
|                                  |         | 4.2 ml/kg                             |

| **2-(2-ethoxyethoxy)ethanol (CAS 111-90-0)** |     |                                       |
| **Acute**                        |         |                                       |
| **Dermal**                       |         |                                       |
| LD50                             | Rabbit  | 8476 mg/kg                            |
|                                  | Rat     | 6000 mg/kg                            |
| **Oral**                         |         |                                       |
| LD50                             | Mouse   | 6.58 g/kg                             |
|                                  | Rat     | 1920 mg/kg                            |

| **Triethylamine (CAS 121-44-8)** |     |                                       |
| **Acute**                       |         |                                       |
| **Dermal**                      |         |                                       |
| LD50                             | Rabbit  | 416 mg/kg                             |
|                                   |         |                                       |
| **Inhalation**                  |         |                                       |
| LC50                             | Mouse   | 6 mg/l, 2 Hours                       |
|                                  | Rat     | 6 mg/l, 2 Hours                       |
|                                  |         | 0.42 mg/l, 1 Hours                    |
| **Oral**                        |         |                                       |
| LD50                             | Mouse   | 546 mg/kg                             |
|                                  | Rabbit  | 365 mg/kg                             |
|                                  | Rat     | 460 mg/kg                             |

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization
Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Reproductive toxicity
May damage fertility or the unborn child.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT CONCRETE SEAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45939.8438 mg/l, 96 hours estimated</td>
</tr>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-(2-ethoxyethoxy)ethanol (CAS 111-90-0)</td>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 10000 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition coefficient n-octanol / water (log Kow)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methyl-2-Pyrrolidinone</td>
<td>-0.54</td>
</tr>
<tr>
<td>2-(2-ethoxyethoxy)ethanol</td>
<td>-0.54</td>
</tr>
<tr>
<td>Triethylamine</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
14. Transport information

DOT
Not regulated as dangerous goods.

15. Regulatory information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**
Triethylamine (CAS 121-44-8) Listed.

**SARA 304 Emergency release notification**
Not regulated.

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard</th>
<th>Delayed Hazard</th>
<th>Fire Hazard</th>
<th>Pressure Hazard</th>
<th>Reactivity Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**SARA 302 Extremely hazardous substance**
Not listed.

**SARA 311/312 Hazardous chemical**
No

**SARA 313 (TRI reporting)**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methyl-2-Pyrrolidinone</td>
<td>872-50-4</td>
<td>1 - &lt; 3</td>
</tr>
</tbody>
</table>

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
Triethylamine (CAS 121-44-8)

**Safe Drinking Water Act (SDWA)**
Not regulated.

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**
Not listed.

**US. Massachusetts RTK - Substance List**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)
Triethylamine (CAS 121-44-8)

**US. New Jersey Worker and Community Right-to-Know Act**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)
Triethylamine (CAS 121-44-8)

**US. Pennsylvania Worker and Community Right-to-Know Law**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)
Triethylamine (CAS 121-44-8)

**US. Rhode Island RTK**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4)
Triethylamine (CAS 121-44-8)

**US. California Proposition 65**
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**
1-Methyl-2-Pyrrolidinone (CAS 872-50-4) Listed: June 15, 2001
International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-11-2015
Version # 01
HMIS® ratings

- Health: 2
- Flammability: 0
- Physical hazard: 0

Disclaimer
No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose, or of any nature are made with respect to the product(s) or information contained in this material safety data sheet. The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate. The buyer or user assumes all risks associated with the use, misuse or disposal of this product. The buyer or user is responsible to comply with all federal, state or local regulations concerning the use, misuse or disposal of these products.