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Date: Sept. 28, 2017

Version: 001

Material Safety Data Sheet

1. PRODUCT INFORMATION

<u>Product name:</u>	HEMI-Link[®]-Hydroxyethyl
<u>Chemical name:</u>	2-Hydroxyethylmaleimide
<u>Synonyms:</u>	N-(2-Hydroxyethyl)maleimide; N-(Ethanol)maleimide, HEMI
<u>CAS #:</u>	1585-90-6
<u>Formula:</u>	C ₆ H ₇ NO ₃
<u>Molecular weight:</u>	141.12 g/mol
<u>Melting point:</u>	74 °C
<u>Physical form:</u>	White/Off-white solid.
<u>Water-soluble:</u>	Yes

2. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

- Avoid contact with skin and eyes.
- Avoid formation of dust and aerosols.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Keep container tightly closed in a dry and well-ventilated place.
- Recommended storage temperature: 2 - 8 °C
- Light sensitive.
- Stable under recommended storage conditions.

3. HAZARDS IDENTIFICATION

OSHA Hazards: Irritant

GHS Classification:


- Acute toxicity: Oral, Category 5
- Eye irritation: Category 2A

HMIS Classification:

Health hazard: 2
Flammability: 0
Physical hazards: 0



GHS Label elements, including hazard and precautionary statements:

- Pictogram 
- Signal word: Warning
- H303: May be harmful if swallowed.
- H319: Causes serious eye irritation.
- P305 + P351 + P338, if in eyes:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

NFPA Rating:

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.

4. FIRST AID MEASURES

General advice: Consult a physician for all situations listed below in this section. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.



5. FIREFIGHTING MEASURES

Conditions of flammability: Not flammable or combustible.

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions.
- Carbon oxides, nitrogen oxides (NO_x).

6. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level of protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Hands should be washed before breaks and at the end of the workday.

7. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment and avoid breathing dust.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and/or shovel if needed. Keep in suitable closed containers for disposal.



8. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: OSHA identifies no component of this product present at levels greater than or equal to 0.1% as a carcinogen or potential carcinogen.

Reproductive toxicity: No data available

Teratogenicity: No data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

No data available

Aspiration hazard: No data available

Potential health effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs and Symptoms of Exposure: Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: No data available

Additional Information: RTECS: Not available



9. ECOLOGICAL INFORMATION

Toxicity: No data available

Persistence and degradability: No data available

Bio-accumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: no data available

10. DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

11. TRANSPORT INFORMATION

DOT (US): Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

12. REGULATORY INFORMATION

OSHA Hazards: Irritant

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SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

13. OTHER INFORMATION

- The above information is believed to be correct, but does not purport to be all-inclusive and shall only be used as a guide.
- The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.
- JE PolyDesign, LLC (United States), and JE PolyDesign AB (Sweden), and its Affiliates, shall not be held liable for any damage resulting from handling or from contact with the above product.