

## MVB Hardener - Part B

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	MVB Hardener - Part B
<b>Other Means of Identification</b>	N/A
<b>Product Family</b>	Epoxy Hardeners
<b>Recommended Use</b>	Industrial concrete coating.
<b>Restrictions on Use</b>	This product is designed as part of a system in 2 parts and must be mixed, according to manufacturer's instructions, with the appropriate partner product before use.
<b>Manufacturer</b>	R&D Technical Solutions Ltd., 7000 Davand Drive, Mississauga, ON, L5T 1J5, 905-795-9900, <a href="http://www.rdsolutions.ca">www.rdsolutions.ca</a>
<b>Emergency Phone No.</b>	CANUTEC, 1-613-996-6666, 24 HR

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Skin irritation - Category 2; Serious eye damage - Category 1; Respiratory sensitization - Category 1; Skin sensitization - Category 1

#### Label Elements



Signal Word:

Danger

Hazard Statement(s):

H315 Causes skin irritation.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

P284 In case of inadequate ventilation wear respiratory protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Ethylenediamine	107-15-3	1.0-5.0		
Diethylenetriamine	111-40-0	1.0-5.0		2,2'-iminodiethylamine
Phenol	108-95-2	0.1-1.0		

### Notes

Any concentration shown as a range is to protect confidentiality or due to batch variations.

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

#### Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse with lukewarm, gently flowing water for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

#### Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Centre or doctor.

#### Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Get medical advice or attention if you feel unwell or are concerned.

### Most Important Symptoms and Effects, Acute and Delayed

None known.

### Immediate Medical Attention and Special Treatment

#### Target Organs

This product is unlikely to target specific organs. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

#### Special Instructions

Not applicable.

#### Medical Conditions Aggravated by Exposure

None known.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Smothering the fire with large quantities of dirt or sand is usually the best option for extinguishing fires, if safe to do so.

#### Unsuitable Extinguishing Media

Do not use direct water stream - may cause fire to spread.

### Specific Hazards Arising from the Product

Does not burn. Closed containers may rupture violently when heated releasing contents.

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Not known to generate any hazardous decomposition products in a fire.

#### **Special Protective Equipment and Precautions for Fire-fighters**

No special precautions are necessary.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

#### **Personal Precautions, Protective Equipment, and Emergency Procedures**

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

#### **Environmental Precautions**

It is good practice to prevent releases into the environment. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Minimize the use of water to prevent environmental contamination.

#### **Methods and Materials for Containment and Cleaning Up**

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product.

Suitable absorbents are: clay, dirt, sand, Milsorb®.

#### **Other Information**

Report spills to local health, safety and environmental authorities, as required.

## **SECTION 7. HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

Do not get in eyes, on skin or on clothing. Avoid ALL unprotected contact with this product or with contaminated equipment/surfaces. Wear personal protective equipment to avoid direct contact with this chemical. Avoid generating vapours or mists. General hygiene considerations: do NOT eat, drink or store food in work areas. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

#### **Conditions for Safe Storage**

Store in an area that is: well-ventilated. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control Parameters**

Not available.

Consult local authorities for provincial or state exposure limits.

#### **Appropriate Engineering Controls**

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

#### **Individual Protection Measures**

##### **Eye/Face Protection**

Wear chemical safety goggles. Wear chemical safety goggles and face shield when contact is possible.

##### **Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots. Chemical-resistant, impervious gloves which comply with an approved standard should be worn at all times when handling.

Neoprene rubber, polyvinyl alcohol, polyvinyl chloride.

##### **Respiratory Protection**

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

#### **Basic Physical and Chemical Properties**

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<b>Appearance</b>	Red - brown liquid. Particle Size: Not available
<b>Odour</b>	amine-like
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	Not available (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	> 66 °C (151 °F)
<b>Flash Point</b>	104 °C (219 °F)
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable (liquid).
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	0.99935 at 25 °C (77 °F)
<b>Solubility</b>	Practically insoluble in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); 700 centipoises at 25 °C (77 °F) (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Liquid
<b>Molecular Formula</b>	Not available
<b>Molecular Weight</b>	Not available
<b>Bulk Density</b>	Not available
<b>Surface Tension</b>	Not available
<b>Critical Temperature</b>	Not available
<b>Electrical Conductivity</b>	Not available
<b>Vapour Pressure at 50 deg C</b>	Not available
<b>Saturated Vapour Concentration</b>	Not available
<b>VOC</b>	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

None known.

### Hazardous Decomposition Products

None known.

## SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

### Likely Routes of Exposure

Skin contact; skin absorption; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ethylenediamine	Not applicable	Not applicable	Not applicable

Inhalation ATEmix = 490 mg/L (4-hour exposure) (dust/mist)

<5% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (inhalation)

Oral ATEmix = 12788.92 mg/kg

Dermal ATEmix = 11497.33 mg/kg

### Skin Corrosion/Irritation

Causes skin irritation. May cause an allergic skin reaction.

### Serious Eye Damage/Irritation

There is limited evidence of serious eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

May cause severe nose and throat irritation.

#### Skin Absorption

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

#### Ingestion

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Can cause effects as described for skin contact.

### Aspiration Hazard

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

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

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

### Respiratory and/or Skin Sensitization

May cause sensitization through inhalation. May cause severe asthma-like symptoms (respiratory sensitization) based on information for closely related chemicals. May cause an allergic reaction (skin sensitization) based on limited evidence.

### Carcinogenicity

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

### Reproductive Toxicity

#### Development of Offspring

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

#### Sexual Function and Fertility

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

#### Effects on or via Lactation

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

### Germ Cell Mutagenicity

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

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This product has not been tested.

### Ecotoxicity

No information was located.

### Persistence and Degradability

No information was located.

### Bioaccumulative Potential

No information was located.

### Mobility in Soil

No information was located.

### Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

### Special Precautions

Not applicable

### Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

##### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not listed on the DSL or NDSL.

#### USA

##### Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Compliance & Documentation Coordinator

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**Revision Indicators** The following SDS content was changed on June 14, 2019:  
SECTION 2. HAZARD IDENTIFICATION; Classification; Label Elements.  
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.

**Key to Abbreviations** ACGIH® = American Conference of Governmental Industrial Hygienists

IARC = International Agency for Research on Cancer

NIOSH = National Institute for Occupational Safety and Health

OSHA = US Occupational Safety and Health Administration

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**References**

NTP = National Toxicology Program  
CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

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