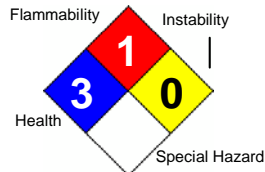


# 1-ESD 100% Solids Epoxy Coating Hardener - Part B



<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL</b>	<b>0</b>
<b>PPE</b>	<b>X</b>



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## 1. Product and Company Identification

<b>Product Code:</b>	1-ESD-RCB		
<b>Product Name:</b>	1-ESD 100% Solids Conductive Epoxy Coating Hardener - Part B		
<b>Trade Name:</b>	1-ESD 100% Solids Conductive Epoxy Coating Hardener - Part B		
<b>Manufacturer Information</b>			
<b>Company Name:</b>	Epoxy Systems, Inc. 20774 W Pennsylvania Ave Dunnellon, FL		
<b>Phone Number:</b>	+1 (352) 489-1666		
<b>Emergency Contact:</b>	PERS (USA)	(800)633-8253	
<b>Alternate Emergency Contact:</b>	PERS (International)	+1 (801)629-0667	
<b>Intended Use:</b>	Industrial floor coatings.		

## 2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Skin Sensitization, Category 1A	Exclamation point	Warning	May cause an allergic skin reaction
Skin Corrosion/Irritation, Category 1A	Corrosive	Danger	Causes severe skin burns and eye damage
Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage
Acute Toxicity: Oral, Category 4	Exclamation point	Warning	Harmful if swallowed
Acute Toxicity: Inhalation, Category 4	Exclamation point	Warning	Harmful if inhaled
Acute Toxicity: Skin, Category 4	Exclamation point	Warning	Harmful in contact with skin

### GHS Hazard Phrases

- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H302 - Harmful if swallowed.
- H332 - Harmful if inhaled.

### GHS Precaution Phrases

- P281 - Use personal protective equipment as required.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.

### GHS Response Phrases

- P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313 - If eye irritation persists, get medical advice/attention.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P315 - Get immediate medical advice/attention.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P309+311 - Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

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**GHS Storage and Disposal Phrases**

P403+235 - Store in cool/well-ventilated place. P501 - Dispose of contents/container to local, state, and federal authority requirements.

**Potential Health Effects (Acute and Chronic)**

Corrosive to eyes and skin. Causes burns. May be harmful if swallowed. Irritating to respiratory system. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Aspiration hazard if swallowed. Can enter lungs and cause damage.

**Inhalation**

Corrosive to respiratory tract. May cause respiratory sensitization.

**Skin Contact**

Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Eye Contact**

Corrosive/irritation to eyes. Causes eye burns.

**Ingestion**

Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

**Recommended Exposure Limits**

Not established.

**Medical Conditions Generally Aggravated By Exposure**

Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

**OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

**3. Composition/Information on Ingredients**

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Benzenemethanol	100-51-6	25 - 35 %
2. 1,3-Benzenedimethanamine	1477-55-0	25 - 35 %
3. Isophoronediamine	2855-13-2	25 - 35 %
4. Phenol, 4-nonyl-, branched	84852-15-3	5.0 - 15 %
5. Diethylenetriamine	111-40-0	1.0 - 5.0 %
6. 4,4'-Isopropylidenediphenol	80-05-7	1.0 - 5.0 %

**4. First Aid Measures**

**Emergency and First Aid Procedures**

**In Case of Inhalation**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.

**In Case of Skin Contact**

In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

**In Case of Eye Contact**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention immediately.

**In Case of Ingestion**

If swallowed, wash out mouth with water provided person is conscious. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Get medical attention immediately.

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**Signs and Symptoms Of Exposure**

Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: Can cause severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Inhalation: Vapors are irritating to the respiratory system, may cause throat pain and cough.

**5. Fire Fighting Measures**

**Flash Pt:** > 200.00 F Method Used: Pensky-Marten Closed Cup

**Explosive Limits:** LEL: NE UEL: NE

**Autoignition Pt:** No data available.

**Fire Fighting Instructions**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Flammable Properties and Hazards**

Combustible material: may burn but does not ignite readily.

**Hazardous Combustion Products**

In a fire, product may produce the following: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Fire may produce irritating, corrosive and/or toxic gases.

**Suitable Extinguishing Media**

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

**Unsuitable Extinguishing Media**

Do not use a direct water stream, which may spread fire.

**6. Accidental Release Measures**

**Steps To Be Taken In Case Material Is Released Or Spilled**

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL.

Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

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

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Where splashing is possible, full chemically resistant protective clothing, and boots are required.

**Environmental Precautions**

Prevent entry into waterways, sewers, basements or confined areas.

**7. Handling and Storage**

**Hazard Label Information:**

Avoid contact with eyes. Do not get on skin and clothing. Avoid inhalation of vapor or mist. Store in a closed container.

**Precautions To Be Taken in Handling**

Provide adequate ventilation. Wear all personal protection required in section 8.

**Precautions To Be Taken in Storing**

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible material.

**Other Precautions**

Wash thoroughly after handling.

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**8. Exposure Controls/Personal Protection**

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Benzenemethanol	100-51-6	No data.	No data.	No data.
2. 1,3-Benzenedimethanamine	1477-55-0	No data.	CEIL: mg/m3	No data.
3. Isophoronediamine	2855-13-2	No data.	No data. No	No data.
4. Phenol, 4-nonyl-, branched	84852-15-3	No data.	data. TLV:	No data.
5. Diethylenetriamine	111-40-0	No data.	1 ppm	No data.
6. 4,4'-Isopropylidenediphenol	80-05-7	No data.	No data.	No data.

**Protective Equipment Summary - Hazard Label Information:**

Neoprene gloves Safety glasses, or goggles. Impervious clothing. Chemical resistant boots

**Respiratory Equipment (Specify Type)**

Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

**Eye Protection**

Safety glasses, or goggles.

**Protective Gloves**

Nitrile rubber and Neoprene are recommended.

**Other Protective Clothing**

Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.

**Engineering Controls (Ventilation etc.)**

Good general ventilation should be sufficient to control airborne levels. Safety shower and eye bath.

**Work/Hygienic/Maintenance Practices**

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

**Environmental Exposure Controls**

Avoid runoff into storm sewers and ditches which lead to waterways.

**9. Physical and Chemical Properties**

<b>Physical States:</b>	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	NE
<b>Decomposition Temperature:</b>	NE
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	> 200.00 F Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: NE UEL: NE
<b>Specific Gravity (Water = 1):</b>	~ 1.019 - 1.043
<b>Density:</b>	~ 8.50 - 8.70 LB/GL
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	NE
<b>Evaporation Rate:</b>	NE

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**Solubility in Water:** NE  
**Percent Volatile:** N.A.  
**VOC / Volume:** NP  
**HAP / Volume:** NP  
**Saturated Vapor Concentration:** NE

**Appearance and Odor**

Odor: amine-like.  
Appearance: Liquid. amber.

**10. Stability and Reactivity**

**Stability:** Unstable [ ] Stable [ X ]

**Reactivity**

Avoid: acids, alkalis, oxidizing agents.

**Conditions To Avoid - Instability**

Extreme temperatures.

**Incompatibility - Materials To Avoid**

Avoid strong acids, bases, and oxidizing agents.

**Hazardous Decomposition Or Byproducts**

Nitrogen oxides, Phenolics. Carbon monoxide, Carbon dioxide.

**Possibility of Hazardous** Will occur [ ] Will not occur [ X ]

**Polymerization:**

**Conditions To Avoid - Hazardous Reactions**

Will not undergo hazardous polymerization in normal storage conditions.

**11. Toxicological Information**

**Toxicological Information**

May cause sensitization by skin contact.

**Chronic Toxicological Effects**

Skin sensitization.

**Irritation or Corrosion**

Corrosive! Damages skin and eyes.

**Symptoms related to Toxicological Characteristics**

Skin: Contact with substance may cause severe burns to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Eyes: Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Permanent eye damage including blindness could result.

Inhalation: Inhalation of vapors/fumes causes respiratory irritation with throat discomfort, coughing or difficulty breathing.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Benzenemethanol	100-51-6	n.a.	n.a.	n.a.	n.a.
2. 1,3-Benzenedimethanamine	1477-55-0	n.a.	n.a.	n.a.	n.a.
3. Isophoronediamine	2855-13-2	n.a.	n.a.	n.a.	n.a.
4. Phenol, 4-nonyl-, branched	84852-15-3	n.a.	n.a.	n.a.	n.a.
5. Diethylenetriamine	111-40-0	n.a.	n.a.	n.a.	n.a.
6. 4,4'-Isopropylidenediphenol	80-05-7	n.a.	n.a.	n.a.	n.a.

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**12. Ecological Information**

**General Ecological Information**

Avoid release to the environment. Do not empty into drains. May be hazardous to the environment if released in large quantities.

**Results of PBT and vPvB assessment**

No data available.

**Persistence and Degradability**

Not readily biodegradable.

**Bioaccumulative Potential**

No data available.

**Mobility in Soil**

not reported, unknown.

**13. Disposal Considerations**

**Waste Disposal Method**

Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.

**14. Transport Information**

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name**

Corrosive Liquid, N.O.S. (M-Phenylenebis(methylamine), Isophoronediamine)

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person offering the product for transport.

**DOT Hazard Class:**

8

**DOT Hazard Label:**

CORROSIVE

**UN/NA Number:**

UN1760

**Packing Group:**

II

**Precautionary Label**

Corrosive! Damages skin and eyes. Avoid skin and eye contact. May cause eye and skin irritation. May cause skin sensitization. Wear protective equipment and clothing. Always read MSDS/SDS before use.

**AIR TRANSPORT (ICAO/IATA)**

**ICAO/IATA Shipping Name**

Corrosive Liquid, N.O.S. (M-Phenylenebis(methylamine), Isophoronediamine)

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person offering the product for transport.

**UN Number:**

1760

**Hazard Class:**

8 - CORROSIVE

**Packing Group:**

II

**MARINE TRANSPORT (IMDG/IMO)**

**IMDG/IMO Shipping Name**

Corrosive Liquid, N.O.S. (M-Phenylenebis(methylamine), Isophoronediamine)

Note: The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. Shipment compliance is the responsibility of the person

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**Hardener - Part B**  
offering the product for transport.

**UN Number:** 1760  
**Hazard Class:** 8 - CORROSIVE  
**Packing Group:** II  
**IMDG EMS Number:** FA,SB  
**Marine Pollutant:** No

**15. Regulatory Information**

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Benzenemethanol	100-51-6	No	No	No	No
2. 1,3-Benzenedimethanamine	1477-55-0	No	No	No	No
3. Isophoronediamine	2855-13-2	No	No	No	No
4. Phenol, 4-nonyl-, branched	84852-15-3	No	No	No	No
5. Diethylenetriamine	111-40-0	No	No	No	No
6. 4,4'-Isopropylidenediphenol	80-05-7	No	No	Yes	No

**Regulatory Information**

SARA Section 311/312: Acute Health Hazard.

**16. Other Information**

CA=CIRCA NA=NOT AVAILABLE NE=NOT ESTABLISHED NR=NOT REGULATED NP= NOT APPLICABLE PR=PROPRIETARY TS=TRADE SECRET ?=UNKNOWN.

**Company Policy or Disclaimer**

The information contained in this MSDS is taken from sources believed to be accurate as of the date hereof; however Epoxy Systems, Inc. makes no expressed or implied warranty in respect to the accuracy of the information or the suitability of the recommendations, and assumes no liabilities to any user thereof.

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