# 620 100% Solids Chemical Resistant Conductive

# **Epoxy Hardener- Part B**





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# 1. Product and Company Identification

Product Code: 620ESD-RCB

Product Name: 620 100% Solids Chemical Resistant Conductive Epoxy Hardener- Part B

Trade Name: 620 100% Solids Chemical Resistant Conductive Epoxy Hardener- Part B

**Manufacturer Information** 

Company Name: Key Resin Company

4050 Clough Woods Dr. Batavia, OH 45103

Batavia, OTT 10100

**Phone Number:** +1 (513)943-4225

Emergency Contact: Chemtrec (USA) (800)424-9300

Alternate Emergency Contact: Chemtrec (International) +1 (703)527-3887

### 2. Hazards Identification

Skin Sensitization, Category 1A  Skin Sensitization, Category 1A  Skin Corrosion/Irritation, Category 1A  Skin Corrosive Danger  Serious Eye Damage/Eye Irritation, Category 1  Acute Toxicity: Oral, Category 4  Acute Toxicity: Inhalation, Category 4  Acute Toxicity: Skin, Category 4  Exclamation point  Acute Toxicity: Skin, Category 4  Exclamation Warning Harmful if inhaled  point  Harmful in contact with skin  point					
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  Acute Toxicity: Inhalation, Category 4 Exclamation point  Acute Toxicity: Skin, Category 4 Exclamation Warning Harmful if inhaled  Acute Toxicity: Skin, Category 4 Exclamation Warning Harmful in contact with skin	GHS Classification	Placard Key word		GHS hazard phrase	
Serious Eye Damage/Eye Irritation, Category 1 Corrosive Danger Causes serious eye damage  Acute Toxicity: Oral, Category 4 Exclamation point  Acute Toxicity: Inhalation, Category 4 Exclamation Warning Harmful if inhaled point  Acute Toxicity: Skin, Category 4 Exclamation Warning Harmful in contact with skin	Skin Sensitization, Category 1A		Warning	May cause an allergic skin reaction	
Acute Toxicity: Oral, Category 4  Exclamation Warning Harmful if swallowed  Point  Acute Toxicity: Inhalation, Category 4  Exclamation Warning Harmful if inhaled  Point  Acute Toxicity: Skin, Category 4  Exclamation Warning Harmful in contact with skin	Skin Corrosion/Irritation, Category 1A	Corrosive	Danger	Causes severe skin burns and eye damage	
point  Acute Toxicity: Inhalation, Category 4  Exclamation Warning Harmful if inhaled point  Acute Toxicity: Skin, Category 4  Exclamation Warning Harmful in contact with skin	Serious Eye Damage/Eye Irritation, Category 1	Corrosive	Danger	Causes serious eye damage	
point  Acute Toxicity: Skin, Category 4 Exclamation Warning Harmful in contact with skin	Acute Toxicity: Oral, Category 4		Warning	Harmful if swallowed	
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Acute Toxicity: Inhalation, Category 4		Warning	Harmful if inhaled	
	Acute Toxicity: Skin, Category 4		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**

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 2	25 - 35 %		
2. 1,3-Benzenedimethanamine 1477	7-55-0 2	25 - 35 %		
3. Isophoronediamine 285	5-13-2 2	25 - 35 %		
4. Phenol, 4-nonyl-, branched 84852	2-15-3 5	5.0 - 15 %		
5. Diethylenetriamine 11	I-40-0 1	1.0 - 5.0 %		
4. Phenol, 4-nonyl-, branched 84852				

### 4. First Aid Measures

80-05-7 1.0 - 5.0 %

### **Emergency and First Aid Procedures**

### In Case of Inhalation

6. 4,4'-Isopropylidenediphenol

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

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

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

No data available. **Autoignition Pt:** 

### **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**

CO2, 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. 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 data.
4.	Phenol, 4-nonyl-, branched	84852-15-3	No data.	No data.	No data.
5.	Diethylenetriamine	111-40-0	No data.	TLV: 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 **Physical States:** [ ] Gas [X] Liquid [ ] Solid

ΝE **Melting Point:** 

ΝE **Boiling Point: Decomposition Temperature:** NE

**Autoignition Pt:** No data.

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

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

**Specific Gravity (Water = 1):** ~ 1.019 - 1.043 ~ 8.50 - 8.70 LB/GL **Density:** 

Vapor Pressure (vs. Air or mm Hg): NE **Vapor Density (vs. Air = 1):** NE **Evaporation Rate:** NE

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Solubility in Water:

Percent Volatile:

NA.

VOC / Volume:

NP

NP

**Appearance and Odor** 

Odor: amine-like.

**Saturated Vapor Concentration:** 

Appearance: Liquid. amber.

# 10. Stability and Reactivity

Stability: Unstable [ ] Stable [ X ]

NE

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.

На	zardous 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.

8 **DOT Hazard Class:** 

**DOT Hazard Label: CORROSIVE** UN1760 **UN/NA Number:** 

**Packing Group:** 

**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

Ш **Packing Group:** 

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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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

### **Regulatory Information**

SARA 302 Extremely Hazardous Substances: None.

SARA Section 311/312: Acute Health Hazard.

SARA 313 Toxic Chemicals: 80-05-7 4,4'-Isopropylidenediphenol.

CERCLA Reportable Quantity: None.

### 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 the Key Resin Company 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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