

# Clear Epoxy Encapsulating and Potting Compound

832C



### ATTENTION

Mixing ratio for this product is **2 parts A to 1 part of B**. Please be advised that there is a misprint on our label for one of the production runs.

### For high voltage applications

Protects sensitive electronic components from impact, shock, vibration, heat, conductivity, moisture, chemicals. Allows visual inspection.

### Features

- Non-porous, water and chemical resistant
- Extremely impact resistant (contains a form of nylon)
- Affords total security, once cast it can not be removed
- Excellent machining properties
- Non-conductive, an electrical insulator
- Low toxicity
- Suitable for explosion proof components (spark arresting)
- Easy and simple to mix
- Long pot life
- Can be cured in one hour at 65°C (150°F)
- This product is RoHS compliant



### Encapsulating & Potting Compound Available

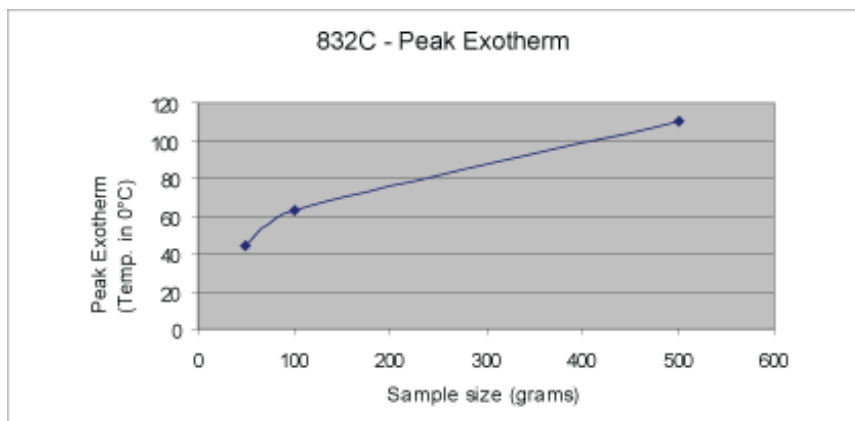
colors:

- [Clear](#)  
 [Black](#)

### Specifications

Uncured Properties - Resin [Part A]	
<a href="#">Viscosity</a>	2,500 cps
Specific Gravity	1.1273
Color	Clear (yellow tint), colorless
Uncured Properties - Hardener [Part B]	
<a href="#">Viscosity</a>	11,000 cps
Specific Gravity	0.9564
Color	Clear, amber tint
Cured Properties - Physical	
Mixed <a href="#">Viscosity</a>	3,300 cps
Mixed Specific Gravity	1.0577
Volume Mix Ratio (resin:hardener)	2.0: 1
Mass Mix Ratio (resin:hardener)	2.3: 1

Working time (100g)		60 minutes
Tensile Elongation	ASTM D 638	3276 psi / 6.4% elongation
Compression Strength/modulus	ASTM D 695	8971 psi / 315000 psi
Flexural strength/modulus	ASTM D 790	5549 psi / 370,000 psi
Izod impact strength	ASTM D 256	0.700 ft-lbs / inch notch, 0.214" thickness
Shore <u>Hardness</u>	ASTM D 2240	85 (initial) - 85 (10 sec) averages
Coefficient of Thermal Expansion	ASTM E 831	0.036" / 10 " @ 32°F, 0.020"/10" @72°F
Lap shear strength	ASTM 1002	702 psi
<b>Curing Time (100g)</b>		
@ room temp.		24 hours
@ 65°C		60 minutes
@ 80°C		45 minutes
@ 100°C		35 minutes
<b>Cured Properties - Temperature</b>		
Constant Service Temperature	140°C (284°F)	
Intermediate Service Temperature	145°C (293°F)	
Heat deflection temp. 264 psi	ASTM D 648	43.548°C (92.22°F)
<b>Cured Properties - Electrical</b>		
Volume Resistivity (ASTM D257)	1.22 x 10 <sup>16</sup> ohm · cm	
Surface Resistivity (ASTM D257)	5.50 x 10 <sup>15</sup> ohm · cm	
Dielectric Constant (ASTM D150)	3.23 @ 60Hz 3.19 @ 10 <sup>3</sup> Hz 2.99 @ 10 <sup>6</sup> Hz	
Dielectric strength (0.114"thk)	ASTM D 149	425 V / mil, 60 Hz
Insulative	Yes	
Conductive	No	
<b>Chemical and Solvent Resistance</b>		
	Change after 3 days	Change after 45 days
Hydrochloric Acid	< 0%	< 1 %
Isopropyl Alcohol	< 0.3 %	< 1 %
Ethyl Lactate	< 3 %	< 7 %
Acetone	< 7%	destroyed
Xylene	< 2%	< 9 %
Iso hexanes	< 5 %	< 8 %
Mineral spirits	< 0.3 %	< 0.3 %



Sample Size (grams)	Peak Exotherm (Temp. in 0°C)	Time in Minutes
50	44	155
100	63	110
500	110	65

## Available Sizes

Catalog Number	Sizes Available	Description
832C-375ML	375 ml (12 oz.)	Liquid
832C-3L	3 L (0.8 gallon)	Liquid
832C-60L	60 L (16 gallons)	Liquid

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# Material Safety Data Sheet

## Section 1: Product Identification

**MSDS Code: 832C - Part A****Name: Encapsulating Epoxy Kit****Related Part Numbers: 832C-375ML; 832C-3L; 832C-60L**

Use: Encapsulating and potting compound.

## Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
25068-38-6	Reaction product of epichlorohydrin and biphenyl A	80 - 95	N/e	N/e	N/e
68609-97-2	Alkyl glycidyl ether	5 - 20	N/e	N/e	N/e

## Section 3: Hazards Identification

**WHMIS Codes:** D2B**NFPA Ratings:** Health 1 Flammability 0 Reactivity 0**HMIS Ratings:** Health 1 Flammability 0 Reactivity 0**Eyes:** Non-irritating**Skin:** Prolonged exposure may cause skin irritation. May cause allergic reaction in some individuals.**Inhalation:** At room temperature, exposure to vapors is unlikely due to physical properties. Higher temperatures may generate vapor levels sufficient to cause irritation.**Ingestion:** Single dose oral toxicity is low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury.**Chronic:** No information available.

## Section 4: First Aid Measure

**Eyes:** Remove contact lenses. Flush with water or saline for 20 minutes. Get medical aid if symptoms persist.**Skin:** Wash skin with large amounts of soap and water. Get medical aid if symptoms persist.**Inhalation:** Immediately remove from exposure to fresh air. Get medical aid if symptoms persist.**Ingestion:** Do not induce vomiting. If conscious, give 1-2 glasses of water. Get medical aid.

## Section 5: Fire Fighting Measures

**Autoignition Temperature:** N/e **Flash Point:** 154°C **LEL / UEL:** N/e**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.**General Information:** N/a

### Section 6: Accidental Release Measures

**Spill Procedure:** Remove all sources of ignition. Provide adequate ventilation. Wear appropriate personal protection. Sprinkle absorbent compound onto spill, then sweep into a plastic or metal container. Wipe up further residue with paper towel and place in container. Wash spill area with soap and water.

### Section 7: Handling and Storage

**Handling:** Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Do not expose container to heat or flame.

**Storage:** Keep away from sources of ignition. Store in a cool, dry, well-ventilated area, away from incompatible substances.

### Section 8: Exposure Controls

**Routes of entry:** Eyes, ingestion, inhalation, and skin.

**Ventilation:** Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.

**Personal Protection:** Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate protective clothing to prevent skin contact. Use a NIOSH approved respirator when necessary.

### Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Liquid	<b>Odor:</b>	Mild	<b>Solubility:</b>	Negligible	<b>Evaporation Rate:</b>	N/e
<b>Boiling Point:</b>	216°C	<b>Specific Gravity:</b>	1.13	<b>Vapor Pressure:</b>	N/e	<b>Vapor Density:</b>	>1 (Air=1)
						<b>pH:</b>	N/a

### Section 10: Stability and Reactivity

**Stability:** Stable at normal temperatures and pressures.

**Conditions to avoid:** Oxidizing agents.

**Incompatibilities:** N/a

**Polymerization:** Will not occur.

**Decomposition:** Carbon dioxide, and carbon monoxide, phenol compounds.

### Section 11: Toxicological Information

**Sensitization:** (effects of repeated exposure) This product is a skin sensitizer.

**Carcinogenicity:** (risk of cancer) No

**Teratogenicity:** (risk of malformation in an unborn fetus) No

**Reproductive Toxicity:** (risk of sterility) No

**Mutagenicity:** (risk of heritable genetic effects) No

<b>Lethal Exposure Concentrations:</b>	<b>Ingestion (LD50):</b> 2000 mg/kg	<b>Inhalation (LC50):</b> N/e	<b>Skin (LD50):</b> N/e
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## Section 12: Ecological Information

**General Information:** Avoid runoff into storms and sewers, which lead into waterways. Water runoff can cause environmental damage.

**Environmental Impact Data:** (percentage by weight)

CFC: 0

HFC: 0

Cl.Solv: 0

VOC: 0

HCFC: 0

ODP: 0

## Section 13: Disposal Information

**General Information:** Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage.

## Section 14: Transportation Information

**Ground:**

Non-regulated

**Air:**

Non-regulated

**Sea:**

Non-regulated

## Section 15: Regulatory Information

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.**

**SARA** (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

None of the chemicals in this product have a reportable quantity.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain any chemicals subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**CAA** (Clean Air Act, USA)

This product does not contain any class 1-ozone depletors.

This product does not contain any class 2-ozone depletors.

This product does not contain any chemicals listed as hazardous air pollutants.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

**Health Canada**

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Container regulations.

**Environment Canada**

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

**Industry and Science Canada**

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance to chapter 4 prohibitions.