

MATERIAL SAFETY DATA SHEET

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SECTION 1 PRODUCT IDENTIFICATION

Product Name: **CHO-BOND SV712**
General Name: Conductive Epoxy

SECTION 2 COMPOSITION INFORMATION

<u>Components & CAS. No.</u>	<u>Weight %</u>	<u>Exposure Limits</u>
Silver 7440-22-4	60 - 85	OSHA PEL TWA: 0.01 mg/m ³ ; ACGIH TLV TWA: 0.1 mg/m ³ .
o-Cresyl glycidyl ether 2210-79-9	<10	Not Established
Amine Compound Proprietary	<5	Not Established
Epoxy Resin 25068-38-6	15-25	Not Established

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview: Silver/gray paste. May cause severe irritation of the eye and skin as well as skin sensitization. May cause irritation of the mucous membranes and respiratory tract. Chronic health effects. Refer to other sections of the MSDS for more detail.

Routes of Entry: Inhalation, skin and eye contact.

Acute Effects

Eye: Contact may cause severe eye irritation.

Skin: Contact may cause severe skin irritation. Contact may cause sensitization, an allergic skin reaction, with symptoms including reddening, swelling, rash, scaling or blistering. Persons sensitized may exhibit these symptoms on subsequent contact with very small amounts of material or as a result of exposure to vapor.

Inhalation: This product contains o-cresyl glycidyl ether that upon inhalation may cause irritation of mucous membranes and respiratory tract and central nervous system depression.

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Ingestion: Harmful if swallowed.

Chronic Effects: Prolonged and repeated contact with silver may result in argyria, a blue-gray discoloration of the eyes, skin or other body tissue. Once deposited, there is no known means by which the silver can be eliminated; the pigmentation is permanent.

o-Cresyl glycidyl ether has been reported to be mutagenic in in-vitro tests.

Special Condition Effects: Not applicable.

Aggravated Medical Conditions: No data available for this product mixture.

SECTION 4 FIRST AID MEASURES

Handle in accordance with good industrial hygiene and safety practices by avoiding unnecessary exposure and by removing material from the eyes, skin and clothing.

Eye: Immediately and gently flush the eyes with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.

Skin: Immediately remove contaminated clothing. Immediately, continuously and gently wash skin for at least 15 minutes. Use soap and water if skin is intact; use only water if skin is not intact. Get immediate medical attention. If irritation persists or if symptoms of exposure develop (see SECTION 3 - HAZARDS IDENTIFICATION) get medical attention.

Inhalation: Remove to fresh air. Get immediate medical attention if irritation persists, breathing becomes difficult or if symptoms as outlined in SECTION 3 develop.

Ingestion: Get medical attention. Never give anything by mouth to an unconscious, drowsy or convulsing person.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: Not established. >200°F

Autoignition Temp: Not established.

Flammability Limits: Not established.

Extinguishing Media: Carbon dioxide, water, water foam, dry chemical.

Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing. If large quantities of material are involved, evacuate area and fight fire from a safe distance.

Unusual Fire Hazards: Decomposition and combustion products may be toxic.

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SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill response operations must be conducted in accordance with the provisions of 29 CFR 1910.120. Observe all recommendations identified in Sections 5 and 8.

Procedures: Limit access to spill area. Collect spill material for reuse or salvage. Cover remaining spilled materials with inert material to absorb residue. Transfer absorbed materials to appropriate containers. Observe all applicable local, state and federal waste management regulations.

SECTION 7 HANDLING AND STORAGE

Handling: Do not allow contact with eyes. Do not allow skin contact. Avoid exposure by inhalation. Wash thoroughly after handling and before eating, drinking or smoking. Use with adequate ventilation. Manage exposures with engineering controls and/or personal protective equipment.

Storage: Store in tightly closed container. Keep away from heat, sparks, flames and other ignition sources. Prevent contact and storage with incompatible materials.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

The recommendations described in this section are provided as general guidance for minimizing exposure. Because usage conditions vary with customer applications, specific exposure controls should be developed by a person knowledgeable in the intended usage condition and equipment.

Ventilation: Provide local exhaust ventilation to capture vapors or mist generated by the process. Ventilation must be sufficient to maintain airborne levels of Section 2 ingredients below their exposure limits.

Eyes: Wear safety eye wear including safety glasses with side shields and chemical goggles.

Skin: Wear protective gloves and, if appropriate, chemical resistant clothing to prevent skin contact. Wash thoroughly after handling and before eating, drinking or smoking. Remove contaminated clothing or shoes immediately and thoroughly clean before reuse.

Inhalation: No respiratory protection should be required. However, use NIOSH/MSHA approved respiratory protection if adequate exhaust ventilation is not provided or air sampling indicates exposure limits are exceeded. The type of respirator selected will depend on the conditions of use. Respiratory protection programs must comply with 29 CFR 1910.134.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Silver/gray paste
Specific Gravity:	3.4
Boiling Point:	Not Established.
Vapor Pressure (25°C):	Not Established.
Vapor Density:	Not Established.
Solubility in Water:	Insoluble.
Volatile Content (Wt%):	Not Established.

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SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Hazardous Polymerization:	Will not occur.
Condition to Avoid:	Avoid storage in open containers, exposure to ignition sources and exposure to incompatible materials.
Incompatibilities:	Incompatible with strong oxidizers, strong acids, organic bases, amines. Reaction with some curing agents may produce considerable heat.
Hazardous Decomposition:	Thermal decomposition and burning may produce carbon monoxide, carbon dioxide, aldehydes, acids, nitrogen oxides, and traces of incompletely burned carbon products.

SECTION 11 TOXICOLOGY INFORMATION: Complete data not yet available.

SECTION 12 ECOLOGICAL INFORMATION: Complete data not yet available.

SECTION 13 DISPOSAL INFORMATION: Complete data not yet available.

SECTION 14 TRANSPORTATION INFORMATION

This product is not regulated as a hazardous material by the U.S. Department of Transportation.

SECTION 15 REGULATORY AND MISCELLANEOUS INFORMATION

TSCA:	All components of this product are listed on the TSCA inventory.
SARA 313 Chemicals:	Silver 7440-22-4
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