

MATERIAL SAFETY DATA SHEET

**CHOMERICS DIVISION
PARKER HANNIFIN CORPORATION
77 DRAGON COURT
WOBURN, MA 01888
TEL: 781-935-4850**

SECTION 1 PRODUCT IDENTIFICATION

Product Name: **CHO-BOND 1029, Part B**
General Chemical Description: Conductive Adhesive

SECTION 2 COMPOSITION INFORMATION

<u>Components & CAS. No.</u>	<u>Weight %</u>	<u>Exposure Limits</u>
Silver & Silver Coated Copper		
Copper 7440-50-8	>75	OSHA PEL TWA: 1 mg/m ³ ; ACGIH TLV TWA: 1 mg/m ³ .
Silver 7440-22-4	<20	OSHA PEL TWA: 0.01 mg/m ³ ; ACGIH TLV TWA: 0.1 mg/m ³ .
Silicone Compounds <i>68083-19-2 & Proprietary</i>	<10	Not Established

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview: Silver dry powder mild odor. May cause mild irritation of eyes, mucous membranes and respiratory tract. Chronic health hazards. Refer to other sections of the MSDS for more detailed information.

HMIS Rating: Health: 1 Flammability: 1 Reactivity: 0

Routes of Entry: Inhalation, skin and eye contact.

Acute Effects

Eye: Contact may cause mild eye irritation.

Skin: Prolonged or repeated contact may cause skin irritation.

Inhalation: No irritation expected due to the low volatility of this product at room temperature. However, vapors at elevated temperatures may cause irritation of the mucous membranes and respiratory tract.

Ingestion: Harmful if swallowed.

CHO-BOND 1029 PART B

Chronic Effects: Prolonged or 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.

Special Condition Effects:

When heated to temperatures above 150°C, in the presence of air, this product may form traces of formaldehyde. Formaldehyde is a potential cancer hazard, sensitizer and irritant. When handling at elevated temperatures, provide ventilation to control vapor exposure within OSHA guidelines. Review the OSHA Formaldehyde regulation for details.

Aggravated Medical Conditions: No data is 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 thoroughly flush the eyes with large amounts of water occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.

Skin: Remove contaminated clothing. Remove material from skin and wash area thoroughly with soap and water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air. Get immediate medical attention if irritation persists or breathing becomes difficult.

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.

Flammable 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.

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. Dike area to contain the release. Prevent release from entering sewers or waterways. Collect spill materials for reuse or salvage. Cover remaining spilled materials with inert material to absorb residue. Transfer liquids and absorbed materials to appropriate containers. Observe all applicable local, state and federal waste management regulations.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid contact with eyes. Avoid prolonged or repeated skin contact. Minimize exposure by inhalation. Avoid exposure to vapors at elevated temperatures. Wash thoroughly after handling and before eating, drinking or smoking. Use with adequate ventilation.

Storage: Store in a cool dry location with adequate ventilation. Store in tightly closed container. Keep away from open flame and heat 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: Local exhaust ventilation should not be required. However, if the product is processed at elevated temperatures, provide local exhaust ventilation to capture vapors, mists or fumes generated. 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 if splashing may occur.

Skin: Wear protective gloves to minimize skin contact. Wash thoroughly after handling and before eating, drinking or smoking. Remove contaminated clothing or shoes 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 condition of use. Respiratory protection programs must comply with 29 CFR 1910.134.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Silver dry powder.
Specific Gravity: >1
Boiling Point : Not Established.
Vapor Pressure (25°C): Not Established.
Vapor Density: Not Established.
Solubility in Water: Insoluble.
Volatile Content (Wt%): Not Established.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Condition to Avoid: Avoid storage in open containers, exposure to open flame or exposure to incompatible substances. May generate flammable hydrogen gas on contact with acids, bases or oxidizing materials.

Incompatibilities: Strong oxidizers, acids, bases, metallic catalysts (i.e. tin) and noble metal catalysts.

Hazardous Decomposition: Thermal or chemical decomposition may produce carbon monoxide, carbon dioxide, silicon dioxide, silver & copper compounds, traces of incompletely burned carbon products, formaldehyde and hydrogen gas.

SECTION 11 TOXICOLOGY INFORMATION

All available toxicology information has been provided in Section 3 of this document.

SECTION 12 ECOLOGICAL INFORMATION

No data on ecological effects is available.

SECTION 13 DISPOSAL INFORMATION

Since regulations vary, consult applicable regulations or authorities before disposing of this material.

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: Copper 7440-50-8 Silver 7440-22-4

CHO-BOND 1029 PART B

Date Prepared: 3-15-2007
Document Number: 1029B
Supersedes: 11-17-1999
Prepared By: Chomerics Safety Department

Revision Information: HMIS Rating added. Appearance changed from paste to dry powder.

This information and recommendations herein are based upon data considered true and accurate. However, Chomerics makes no warranties, express or implied as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and material are not within the control of Chomerics, Chomerics assumes no responsibility for injury to the user or third persons. The material described herein is sold pursuant to Chomerics' Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state or local laws and regulations.