

Material Safety Data Sheet

(12642-14)

Section 1: Chemical Product and Company Identification

Product Name: 2-Part Conductive Silver Paint (Part B)

Catalog Number: 12642-14

CAS#: See Section 2 below

Contact Information:

Electron Microscopy Sciences

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Hatfield, PA 19440

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1-215-412-8450 (fax)

Order Online: emsdiasum.com

CHEMTREC (24-Hour Emergency

Telephone), call: 1-800-424-9300

Section 2: Composition and Information on Ingredients

CAS#	Chemical Name	% by weight	ACGIH TWA	OSHA PEL	OSHA STEL
140-31-8	1-(2-aminoethyl)-piperazine	2-5	N/E	N/E	N/E
84852-15-3	Nonyl phenol	20-30	N/E	N/E	N/E
9046-10-0	Poly[oxy(methyl-1,2-ethanediyl)]	3-8	N/E	N/E	N/E
68411-71-2	Reaction product with diglycidyl ether of bisphenol A	1.0	N/E	N/E	N/E
80-05-7	4,4'-isopropylidenediphenol	0.1-1.0	N/E	N/E	N/E
111-40-0	diethylenetriamine	1.0	1 ppm	N/E	N/E
7440-22-4	Silver	40-70	0.1mg/m3	0.01mg/m3	N/E

Section 3: Hazards Identification

WHIMS Codes: D2A, D2B, E

NFPA Ratings: Health: 3

Flammability: 1

Reactivity: 1

HMIS Ratings: Health: 3

Flammability: 1

Reactivity: 1

Eyes: Direct contact will cause severe burns and may cause permanent damage, including blindness.

Skin: Contact may cause skin irritation. May cause an allergic reaction of the skin.

Inhalation: Harmful if inhaled. May cause severe irritation to the respiratory tract.

Ingestion: Harmful if swallowed. Moderate toxicity. Swallowing may burn mouth, throat and stomach.

Chronic: Repeated skin contact may cause dermatitis. Inhalation or ingestion of silver compounds may cause argyria (permanent blue-gray discoloration of the eyes, skin, mucous membranes, and internal organs). At high concentrations inhalation of fumes may cause metal fume fever and may cause central nervous system depression. Material is harmful and may cause chemical pneumonia and lung damage or fatal if liquid is aspirated into the lungs.

Section 4: First Aid Measures

Eyes:	Remove contact lenses if worn. Flush eyes with large quantities of clean water for at least 20 minutes. Get immediate medical attention.
Skin:	Thoroughly wash skin with soap. Remove contaminated clothing and wash before reuse. Solvents should not be used to clean hands because they increase the penetration of the material into the skin. Get medical aid if symptoms persist.
Inhalation:	Remove from exposure area to fresh air immediately. If not breathing give artificial respiration. If Breathing is difficult give oxygen by trained personnel. Get immediate medical attention if symptoms persist..
Ingestion:	Do not induce vomiting. If conscious, give 1 to 2 glasses of water. Get medical attention.

Section 5: Fire and Explosion Data

Auto-Ignition Temperature:	N/E	Flash Point:	>93°C	LEL/UEL:	N/E
Extinguishing Media:	Use carbon dioxide, dry chemical or water fog.				
General Information:	Hazardous combustion may produce carbon monoxide, carbon dioxide, irritating or Toxic vapors and gases, oxides of nitrogen and ammonia.				

Section 6: Accidental Release Measures

Spill Procedure:	Remove all sources of ignition. Provide adequate ventilation. Wear appropriate personal protection. Wipe up with paper towel and place in container. Wash spill area with soap and water.
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Section 7 : Handling and Storage

Handling:	Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not ingest or inhale. Do not expose full or empty container to heat or flame.
Storage:	Keep away from sources of ignition. Store under 26°C (80°F) in a dry, well ventilated area away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

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 (i.e., latex gloves). Use a NIOSH approved respirator when necessary.

Section 9: Physical and Chemical Properties

Physical state: Liquid Odor: Amine Solubility: None Evaporation Rate: N/E
Boiling Point: N/E Specific gravity: 2.20 Vapor pressure: N/E Vapor Density: >1 (air=1) pH: N/A

Section 10: Stability and Reactivity Data

Stability: Stable at room temperatures and pressures.

Conditions to Avoid: Contamination by those materials referred to under incompatibility. Avoid temperatures above 26°C (80°F).

Incompatibilities: Avoid strong oxidizers, bases, acids, peroxides, chlorates and permanganates.

Polymerization: Hazardous polymerization will not occur.

Decomposition: Carbon dioxide, carbon monoxide, hydrocarbons, ammonia, and oxides of nitrogen .

Section 11: Toxicological Information

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

Carcinogenicity (risk of cancer): This material does not contain 0.1% or more of any chemical listed by IARC, NTP, or OSHA as a carcinogen.

Teratogenicity (risk of malformation in An unborn fetus): No

Reproductive Toxicity (risk of sterility): No

Mutagenicity (risk of inheritable genetic Effects): No

Lethal Exposure Concentrations: Ingestion (LD50): N/E Inhalation (LC50): N/E Skin (LD50): N/E

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 Considerations

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

Section 14: Transport Information

Ground: Non-regulated Air: Non-regulated Sea: Non-regulated

Section 15: Other 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 of 1986, USA, 40 CFR 372.4) – 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 depleting substances.

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

RoHS (The restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2004). This product is RoHS compliant.

Section 16: Other Information:

Last Updated: February 4, 2005

Verified and Printed: February 14, 2011

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Electron Microscopy Sciences be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Electron Microscopy Sciences has been advised of the possibility of such damages.