

RADIO SHACK 64-2313A
MATERIAL SAFETY DATA SHEET

TWIN TUBE EPOXY

Index STOCK NO.

S-208 EPOXY RESIN

ITW Brand Merchandising, 226 Gerry Drive, Wood Dale, Il 60191.
 Emergency Telephone No.: (800) 424-9300 (CHEMTREC); Other calls: (508) 777-1100

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATINGS: HEALTH: 2*
 FLAMMABILITY: 1
 REACTIVITY: 0
 1233~

REVISED: May 5, 1992

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SECTION 1. PRODUCT IDENTITY

TRADENAME: S-208 EPOXY RESIN
 CHEMICAL FAMILY: Epoxy resin

OTHER PRODUCT INFORMATION: This information applies to the resin component of the two-part kit; handle freshly-mixed resin and hardener as recommended for the hardener. After curing, the product is not hazardous.

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SECTION 2. HAZARDOUS INGREDIENTS

INGREDIENT(S)	WEIGHT PCT.	CAS NO.	TLV-TWA1,2	Notes
Bisphenol A diglycidyl ether resin Potential skin sensitizer	100	25068386	n/e	

1. "TLV" means the Threshold Limit Value exposure (8-hour time-weighted average, unless otherwise noted) established by ACGIH. "OSHA PEL" refers to the Permissible Exposure Limits for airborne contaminants as specified in 29 CFR 1900.1000.
 2. "N/E" indicates that neither TLV nor OSHA Permissible Exposure Limit has been established.

NOTES: A1--human carcinogen. A2--suspect carcinogen. C--ceiling limit (not a TWA). D--the TLV applies to dusts; this ingredient is not a dust as sold in our product. S--absorption through skin may be a significant route of exposure. "TC" indicates a "Toxic Chemical" subject to the reporting requirements of SARA Section 313 (40 CFR Sec. 372).

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SECTION 3. PHYSICAL PROPERTIES

BOILING POINT (F): n/d	VAPOR DENSITY (Air=1): >1	EVAPORATION RATE (BuAc=1): <<1
MELTING POINT (F): n/d	SPECIFIC GRAVITY: 1.2	SOLUBILITY IN WATER: Nil
PERCENT SOLIDS BY WEIGHT: 100		VAPOR PRESSURE (mmHg): Nil at 70 F
pH (5% by weight in water): 7	APPEARANCE AND ODOR: Thick, amber liquid with little odor.	

VOLATILE ORGANIC COMPOUNDS (VOC): 0 lbs/gal (EPA Reference Method 24) NOTE: "n/d" = "not determined".

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SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >400 F; METHOD: PMCC	EXPLOSIVE LIMITS IN AIR: Lower--n/d; Upper--n/d			
EXTINGUISHING MEDIA: Water	CO2	Dry chemical	Foam	Alcohol foam
	yes	yes	yes	

SPECIAL FIREFIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus and protective clothing.
 UNUSUAL FIRE AND EXPLOSION HAZARDS: None

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SECTION 5. HEALTH HAZARD DATA

EMERGENCY AND FIRST AID PROCEDURES--

EYES: Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.
 SKIN: Wash thoroughly with soap and warm water. Consult a physician if irritation develops.
 INHALATION: Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.
 INGESTION: Do not induce vomiting. Give two glasses of water to dilute (unless patient is unconscious). Get medical attention.

SECTION 5. HEALTH HAZARD DATA (cont'd)

TOXICITY DATA--Oral LD50 (rat): 11,400 mg/kg
 Dermal LD50 (rabbit): >20,000 mg/kg
 Inhalation LC50 (rat): No deaths in saturated air; Exposure time: 8 hours

SYMPTOMS OF ACUTE OVEREXPOSURE--

EYES: Mild to moderate irritation.
 SKIN: Mild to moderate irritation
 INHALATION: No data. The low vapor pressure of the resin makes inhalation unlikely in normal use.
 INGESTION: Acute oral toxicity is low. May cause gastric distress.

EFFECTS OF CHRONIC OVEREXPOSURE: Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure.

MEDICAL CONDITIONS WHICH EXPOSURE MAY AGGRAVATE: Allergies, eczema, or other skin disorders

CARCINOGENICITY--OSHA regulated?	No	ACGIH?	No	Other?	No
National Toxicology Program?	No	International Agency for Research on Cancer?	No		
Ingredient(s) listed:	None				

SECTION 6. REACTIVITY DATA

STABILITY: Chemically stable
 Conditions to avoid: Open flame and extreme heat
 Materials to avoid: Strong acids and strong oxidizing agents
 Hazardous decomposition products: Oxides of carbon; aldehydes and acids from incomplete combustion.

HAZARDOUS POLYMERIZATION: will not occur.
 Conditions to avoid: Heat is generated when this resin is mixed with amines or epoxy hardeners; be careful when mixing large amounts.

SECTION 7. SPILL OR LEAK PROCEDURES

SPILL CONTROL: Prevent skin and eye contact. Large spills may be absorbed on inert material such as sand or vermiculite. Scrape spill up into nonporous containers. Clean spill area with strong detergent and water; use solvents only with appropriate caution.

WASTE DISPOSAL: Remove to a waste facility operating in compliance with state and local regulation.

Applicable CERCLA/RCRA Hazardous Waste Codes: None
 Reportable Quantity under CERCLA, in pounds: ---

SECTION 8. PROTECTIVE EQUIPMENT

EYES: Safety glasses with side shields.
 SKIN: Impervious gloves and other gear as required to prevent skin contact.
 RESPIRATORY: None required at normal handling temperatures.
 VENTILATION: Local exhaust is recommended for confined areas. General mechanical ventilation is adequate for normal use.

SECTION 9. PRECAUTIONS FOR STORAGE, HANDLING, ETC.

Store in a cool, dry place.
 Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used.
 Remove contaminated clothing and protective gear; clean thoroughly before using again. Discard contaminated leather articles.
 Wash thoroughly after using, particularly before eating or smoking.
 If cured material is sanded or machined, use adequate precautions against nuisance particulates.

PROPER SHIPPING NAME: Not regulated
 D.O.T. HAZARD CLASS: None

ITW Brand Merchandising bases the information and recommendations in this document on data believed to be correct. No warranty of any kind, however, is made as to the information in this document.

MATERIAL SAFETY DATA SHEET

S-208 EPOXY HARDENER

Index STOCK NO.

ITW Brand Merchandising, 226 Gerry Drive, Wood Dale, IL 60191.
 Emergency Telephone No.: (800) 424-9300 (CHEMTREC); Other calls: (508) 777-1100

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATINGS: HEALTH: 2*
 FLAMMABILITY: 1
 REACTIVITY: 1
 0210

REVISED: May 5, 1992

SECTION 1. PRODUCT IDENTITY

TRADENAME: S-208 EPOXY HARDENER
 CHEMICAL FAMILY: Polymercaptan/polyamine mixture

OTHER PRODUCT INFORMATION: The following information applies to the hardener component of the two-part kit and to freshly mixed resin and hardener. After curing, S-208 Epoxy is not hazardous.

SECTION 2. HAZARDOUS INGREDIENTS

INGREDIENT(S)	WEIGHT PCT.	CAS NO.	TLV-TWA1,2	Notes
2,4,6-Tri(dimethylaminomethyl)phenol (DMP) Severe eye irritant; possible sensitizer.	10-20	90722	n/e	

- "TLV" means the Threshold Limit Value exposure (8-hour time-weighted average, unless otherwise noted) established by ACGIH. "OSHA PEL" refers to the Permissible Exposure Limits for airborne contaminants as specified in 29 CFR 1900.1000.
- "N/E" indicates that neither TLV nor OSHA Permissible Exposure Limit has been established.

NOTES: A1--human carcinogen. A2--suspect carcinogen. C--ceiling limit (not a TWA). D--the TLV applies to dusts; this ingredient is not a dust as sold in our product. S--absorption through skin may be a significant route of exposure. "TC" indicates a "Toxic Chemical" subject to the reporting requirements of SARA Section 313 (40 CFR Sec. 372).

SECTION 3. PHYSICAL PROPERTIES

BOILING POINT (F): n/d VAPOR DENSITY (Air=1): n/d EVAPORATION RATE (BuAc=1): n/d
 MELTING POINT (F): n/d SPECIFIC GRAVITY: 1.17 SOLUBILITY IN WATER: Negligible
 PERCENT SOLIDS BY WEIGHT: 100 VAPOR PRESSURE (mmHg): <<1 at 70 F
 pH (5% by weight in water): 9.5 APPEARANCE AND ODOR: Viscous, amber liquid with sulfurous odor.
 VOLATILE ORGANIC COMPOUNDS (VOC): 0 lbs/gal (EPA Reference Method 24) NOTE: "n/d" = "not determined".

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 300 F; METHOD: TCC EXPLOSIVE LIMITS IN AIR: Lower--n/d; Upper--n/d
 EXTINGUISHING MEDIA: Water CO2 Dry chemical Foam Alcohol foam
 no yes yes yes no

SPECIAL FIREFIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus and protective clothing in confined areas.
 UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION 5. HEALTH HAZARD DATA

EMERGENCY AND FIRST AID PROCEDURES--

EYES: Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.
 SKIN: Remove contaminated clothing and shoes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.
 INHALATION: Remove patient to fresh air.
 INGESTION: Do not induce vomiting. Consult a physician.

SECTION 5. HEALTH HAZARD DATA (cont'd)

TOXICITY DATA--Oral LD50 (rat): DMP: 1653 mg/kg
 Dermal LD50 (rabbit): DMP: 1350 mg/kg
 Inhalation LC50 (rat): DMP: >0.5 mg/liter; Exposure time: hours

SYMPTOMS OF ACUTE OVEREXPOSURE--

EYES: Animal tests indicate that the hardener can cause moderate to severe eye irritation.
 SKIN: Animal tests on 5-Minute Epoxy Hardener have shown it to cause little or no skin irritation.
 INHALATION: DMP vapor can cause irritation of the respiratory tract.
 INGESTION: DMP is slightly toxic by ingestion; symptoms include fatigue, muscle weakness, labored breathing, and gastric irritation.

EFFECTS OF CHRONIC OVEREXPOSURE: Prolonged or severe overexposure to DMP vapor can cause delayed lung damage and chemical pneumonia. Prolonged or repeated contact with 5-Minute Epoxy Hardener may cause skin sensitization.

MEDICAL CONDITIONS WHICH EXPOSURE MAY AGGRAVATE: None reported.

CARCINOGENICITY--OSHA regulated?	No	ACGIH?	No	Other?	No
National Toxicology Program?	No	International Agency for Research on Cancer?	No		
Ingredient(s) listed:	None				

SECTION 6. REACTIVITY DATA

STABILITY: Chemically stable
 Conditions to avoid: Open flame and extreme heat.
 Materials to avoid: Strong oxidizing agents.
 Hazardous decomposition products: Oxides of carbon, oxides of sulfur, oxides of nitrogen.

HAZARDOUS POLYMERIZATION: will not occur.
 Conditions to avoid: When this hardener is mixed with an epoxy resin heat is generated; be careful when mixing more than an ounce or so.

SECTION 7. SPILL OR LEAK PROCEDURES

SPILL CONTROL: Absorb spill on inert material such as sand or vermiculite and transfer to an impermeable container.

WASTE DISPOSAL: Remove to a waste disposal facility operating in compliance with state and local regulations.

Applicable CERCLA/RCRA Hazardous Waste Codes: None
 Reportable Quantity under CERCLA, in pounds: ----

SECTION 8. PROTECTIVE EQUIPMENT

EYES: Safety glasses with side shields.
 SKIN: Chemical resistant rubber gloves.
 RESPIRATORY: None required in normal use with proper ventilation.
 VENTILATION: Local exhaust is recommended for confined areas. General mechanical ventilation is adequate for normal use.

SECTION 9. PRECAUTIONS FOR STORAGE, HANDLING, ETC.

---Store well closed in a cool, dry place.
 ---Keep hands away from eyes when handling this hardener, or before washing after use.
 ---Wash thoroughly after using, particularly before eating or smoking.

PROPER SHIPPING NAME: Not regulated
 D.O.T. HAZARD CLASS: None

ITW Brand Merchandising bases the information and recommendations in this document on data believed to be correct. No warranty of any kind, however, is made as to the information in this document.