

MATERIAL SAFETY DATA SHEET

VERSACHEM CORPORATION
6643 42nd Terrace North
West Palm Beach, FL 33407
(407) 845-2425

CHEMICAL DATA

SECTION I IDENTIFICATION OF PRODUCT

TRADE NAME Steel Weld Epoxy Hardener	PRODUCT CODE 45-2C <i>45209 BRAVO HARDNER</i>
SYNONYM OR CROSS REFERENCE Epoxy Hardener	PROPER SHIPPING NAME Resin Solution

SECTION II HAZARDOUS INGREDIENTS

MATERIAL See Page 3 attached.	NATURE OF HAZARD Inhalation of vapor may cause nausea or headache Skin irritant
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SECTION III PHYSICAL DATA

BOILING POINT N/A	MELTING POINT N/A - paste
VAPOR PRESSURE N/A	SPECIFIC GRAVITY (water=1) 1.15
VAPOR DENSITY (AIR =1) > 1	PERCENT VOLATILE BY VOLUME (%) < 95
WATER SOLUBILITY Not soluble	EVAPORATION RATE (Ethyl Ether = 1) < 1
APPEARANCE Clear or white paste	

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (method used) COC 350° F.	FLAMMABLE LIMITS Not established	Lower	Upper
FIRE EXTINGUISHING MEDIA Water, CO ₂ , Dry Chemical			
SPECIAL FIRE-FIGHTING PROCEDURES Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially if sprayed into containers of hot, burning liquid. Self-contained breathing apparatus with a full UNUSUAL FIRE AND EXPLOSION HAZARD/facepiece operated in pressure demand or other positive pressure mode.			
N/A			

SECTION V HEALTH HAZARD

THRESHOLD LIMIT VALUE N/A
HEALTH HAZARDS Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use with adequate ventilation.
FIRST AID PROCEDURES EYES: Can cause irritation. Flush with excess water. Call a physician. SKIN: Prolonged or repeated contact can cause moderate irritation, defatting and dermatitis. Wash with soap and water. INHALATION: Excessive inhalation of vapors can cause nasal and respiratory irritation. Remove to fresh air. SWALLOWED: Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID Open flame, sparks, excessive heat (above 100° F.) and/or contact with strong oxidizing agents.
	STABLE	X	

INCOMPATABILITY (materials to avoid)

Strong acids and/or strong oxidizing agents (like peroxides).

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition will yield oxides of carbon (carbon monoxide and carbon dioxide) and acrid fumes.

HAZARDOUS
POLYMERIZATION

MAY OCCUR	X
WILL NOT OCCUR	

CONDITIONS TO AVOID Strong acids, strong oxidant and epoxy resins (amines/amids) where direct contact is under uncontrolled conditons.

SECTION VII SPILL AND DISPOSAL PROCEDURES

SPILLS Pick up large spills with inert absorbents like vermiculite or sand, and place in a proper container for disposal. Wash and clean up small spills with water and detergents.

DISPOSAL

Disposal method must comply with Local, State and Federal Regulations.

SECTION VIII PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)

Ventilate with air flow to keep vapor concentration below TLV

VENTILATION Use in well ventilated area	LOCAL Exhaust	SPECIAL See Section IX
	MECHANICAL (general) Acceptable	OTHER

PROTECTIVE GLOVES
Neoprene or equivalent recommended

EYE PROTECTION Goggles recommended to protect against accidental splashes

OTHER PROTECTIVE EQUIPMENT

Safety showers and eye wash fountains should be available.

SECTION IX HANDLING AND STORAGE PRECAUTIONS

STORAGE & HANDLING Keep away from extreme heat, open flame, or other sources of ignition. Do not store above 100° F. USE WITH ADEQUATE VENTILATION. DANGER: HARMFUL OR FATAL IF SWALLOWED! AVOID CONTACT WITH EYES! AVOID BREATHING OF VAPORS!

MISCELLANEOUS

Do not flame cut, braze, weld, or melt empty containers

Date issued: 7-18-86

Revision:

The information in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the users responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the company to make sure that the sheet is the latest one issued.

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PRODUCT RATING

HMIS LABEL CODE:

0 = least hazard to
 4 = greatest hazard

HEALTH

FLAMMABILITY

REACTIVITY

2
 1
 1

PRODUCT: Steel Weld Epoxy Hardener SECTION II - LIST OF INGREDIENTS

45-2C

	Weight % Range:	CAS #	TLV/PEL
Epoxy hardeners	Less than 32%	68410231	N/E *
Pigments & extenders:			
Titanium Dioxide: TLV-8 hr. TWA 15 mg/m ³ or 5 mg/m ³ as respirable dust		13463-67-7	As shown
Silica (SiO ₂): TLV-8 hr. TWA 10 mg/m ³		7631-86-9	As shown
Calcium Carbonate: TLV-8 hr. TWA 10 mg/m ³	Less than 70%	471-34-1	As shown
Barium Sulphate		7727-43-7	TLV 30 mppcf
Magnesium Silicates: PEL-OSHA 20 mppcf; ACGIH TLV 6 mg/m ³ (Talc - non-asbestos form)		14807-96-6	As shown **
* Not Established.			
** Available data shows hazard as dust. In this product as sold and distributed, this material is wetted down limiting the extent and severity of the potential hazard.			
CARCINOGENICITY	NTP	IARC	OSHA
None			

7-18-86