

MATERIAL SAFETY DATA SHEET

Flint Trading, Inc. 115 Todd Court, Thomasville, NC 27360

Phone: (336) 475-6600 Fax: (336) 475-7900

24 Hour Emergency Phone: 800.424.9300 CHEMTREC

1. PRODUCT NAME:

TopMark® Bonder Paste, Low Modulus (mod.), Part A

Chemical Family: Epoxy resins, diluent, fillers.

2. HAZARDOUS INGREDIENTS

NAME	CAS No.	TLV	STEL	PEL	CONTENT
Epoxy resin	25068-38-6	none	none	none	58-68%
Aliphatic glycidyl ether	74398-71-3	none	none	none	20-30%
Cresyl glycidyl ether	2210-79-9	none	none	none	1-3%

reference section 7, Health Hazard Data for LD (50)

3. PHYSICAL DATA:

Boiling Point:	>200 C	Water/Oil Distribution Coefficient:	N/D
Percent Volatile:	Slight	Solubility in Water:	Slight
Freezing Point	N/D	Specific Gravity:	1.14
Vapor Pressure@ 20C:	N/D	pH:	N/D
Vapor Density	Heavier than air	Evaporation Rate:	N/D
Odor Threshold	N/D	Odor	Slight
Appearance	Amber liquid		

N/D = Not Determined

4. FIRE AND EXPLOSION HAZARD DATA:

HMIS Flammability Rating:	1 - (Slight Hazard)
Flash Point:	>92 C (200 F) PMCC
Auto Ignition Temperature:	N/D
Limits of Flammability:	LEL: N/D UEL: N/D
EXTINGUISHING MEDIA:	CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG
SPECIAL FIRE & UNUSUAL HAZARDS:	At higher temperature vapors can cause pressure build-up in sealed containers. Use water to cool containers exposed to fire. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding not recommended.

5. REACTIVITY DATA:

HMIS Reactivity Rating:	1 - (Slight Hazard)
STABILITY:	This product requires another component to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.
INCOMPATIBILITY:	Strong acids, strong bases. Amines and mercaptans may initiate possible hazardous polymerization.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide and dioxide, aldehydes, various compounds from incomplete combustion.
HAZARDOUS POLYMERIZATION:	May occur is product is not handled per instructions.

6. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS AND LEAKS:	Ventilate area, eliminate all sources of ignition. Wear appropriate protective gear. Contain leak/spill. Salvage. Clean up residue with absorbent material.
WASTE DISPOSAL METHOD:	Handle disposal of waste material in manner which complies with local, state, province, and federal regulations. Landfill if solidified or incinerate at agency approved waste-disposal facility.

7. HEALTH HAZARD DATA:

HMIS Health Rating:	2 - (Moderate Hazard)
Primary Route Of Entry:	Dermal
Effects of Overexposure:	
Skin Contact:	Prolonged or repeated exposure may cause skin irritation and redness. Skin sensitization or allergic reaction may occur in some individuals.
Eyes:	Contact may cause irritation, redness, tearing and blurred vision.
Inhalation:	Vapors may cause severe irritation to nose, and mucous membranes.
Ingestion:	Intake can cause gastro-intestinal irritation, nausea, vomiting and diarrhea. LD (50) CAS 25068-38-6 11.4 g/kg (rat) LD (50) CAS 2210-79-9 11.4 g/kg (rat)
Chronic:	None known.

8: FIRST AID:

Inhalation:	Remove victim from exposure. If difficulty with breathing; administer oxygen and seek immediate medical assistance.
Eyes:	Flush with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.
Skin:	Wash with soap and water; get medical attention if irritation persists.
Ingestion:	Do not induce vomiting, give at least two glasses of water; get immediate medical attention. If vomiting occur spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Do not give anything by mouth to an unconscious person.

9. SPECIAL PROTECTION INFORMATION:

HMIS Personal Protection Rating:	C (Safety Glasses, Gloves, Apron)
Ventilation:	Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to prevent build-up of heavy vapors.
Personal Protection:	Use eye protection. Selection of specific items such as gloves, boots and apron will depend on the operation.

10. ADDITIONAL INFORMATION:

DOT Proper Shipping Name:	Epoxy resin mixture
DOT Hazard Class or Division:	Not regulated
Identification Number:	N/A
Packing Group:	N/A
Labels Required:	N/A
California Prop. 65:	N/A
WHMIS Classification:	Class D, Div. II, Sub. B
Storage Conditions:	Keep containers tightly sealed. Store in dry and cool areas. Avoid freezing conditions.
Shelf life:	Indefinite.
Special Instructions:	Storage recommendations: Store at room temperature. Do not allow to freeze.

The information given herein is given in good faith. No warranty, expressed or implied, is made regarding the accuracy of these data or the results obtained from the use thereof. All materials may present unknown health hazards and must be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Consult ChemCo Systems Inc. for further information.

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1. PRODUCT NAME:

TopMark® Bonder Paste, Low Modulus (mod.), Part B

Chemical Family: Aliphatic amines, fillers.

2. HAZARDOUS INGREDIENTS

NAME	CAS No.	TLV	STEL	CEIL	CONTENT
Parateriarybutylphenol	98-54-4	N/E	N/E	N/E	<40%
Benzene-1,3-dimethaneamine	1477-55-0	N/E	N/E	0.1 mg/m3	<25%
Trimethylhexane diamine	3236-53-1	N/E	N/E	N/E	>20%
Nonylphenol	25254-52-3	N/E	N/E	N/E	<5%
Tris-2,4,6-dimethyl amino methylphenol	90-72-2	N/E	N/E	N/E	1-5%
Benzyl Alcohol (BA)	100-51-6	None	None	None	5-15%

N/E = Not established

reference section 7, Health Hazard Data for LD (50)

3. PHYSICAL DATA:

Boiling Point:	>110 C	Water/Oil Distribution Coefficient:	N/D
Percent Volatile:	negligible	Solubility in Water:	slight
Freezing Point	N/D	Specific Gravity:	>1.2
Vapor Pressure@ 20C:	<0.1mm Hg	pH:	basic
Vapor Density	Heavier than air	Evaporation Rate:	N/D
Odor Threshold	N/D	Odor	Fishy
Appearance	Amber liq.		

N/D = Not Determined

4. FIRE AND EXPLOSION HAZARD DATA:

HMIS Flammability Rating:	1 - (Slight Hazard)
Flash Point:	230 F (PMCC)
Auto Ignition Temperature:	N/D
Limits of Flammability:	LEL: N/D UEL: N/D
EXTINGUISHING MEDIA:	CARBON DIOXIDE, FOAM, DRY CHEMICAL & WATER FOG
SPECIAL FIRE & UNUSUAL HAZARDS:	Self-contained respirator equipment and full protective clothing are required when smoke and fumes are generated. Electrical grounding is not recommended.

5. REACTIVITY DATA:

HMIS Reactivity Rating:	1 - (Slight Hazard)
STABILITY:	Stable. This product must be mixed with another component to react. Not sensitive to mechanical impact.
INCOMPATIBILITY:	Strong oxidizing agents, acids, epoxy resins, isocyanates and organic peroxides may result in violent explosive reactions.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide and dioxide, nitrogen oxides, aldehydes and various hydrocarbons from incomplete combustion.
HAZARDOUS POLYMERIZATION:	Will not occur unless product is mixed with epoxy resins, isocyanates or urethane prepolymers.

6. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS AND LEAKS:	Ventilate area. Wear appropriate protective gear. Contain leak/spill. Clean up residue with absorbent material. Wash down area with water and diluted acetic acid.
WASTE DISPOSAL METHOD:	Handle disposal of waste material in manner which complies with local, state, province, and federal regulations. Landfill if solidified or incinerate at agency approved waste-disposal facility.

The information given herein is given in good faith. No warranty, expressed or implied, is made regarding the accuracy of these data or the results obtained from the use thereof. All materials may present unknown health hazards and must be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Consult ChemCo Systems Inc. for further information.

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7. HEALTH HAZARD DATA:

HMIS Health Rating:	3 - (Serious Hazard)
Primary Route Of Entry:	Dermal, Inhalation
Effects of Overexposure:	
Inhalation	Due to low vapor pressure of this product, fumes will be minimal below 90F. At higher temperatures, fumes will be irritating.
Eyes:	Contact can cause severe burns, irritation, redness, tearing or blurred vision.
Skin Contact:	Short single exposure may cause moderate irritation to mild burn. Prolonged or repeated exposure may cause a severe burn. May result in an allergic reaction or sensitization response in some individuals.
Skin Absorption:	LD (50) CAS 90-72-2 1.28 g/kg (rabbit)
Ingestion:	Intake can cause gastrointestinal irritation, nausea, vomiting, diarrhea, headache and drowsiness. Can result in burns of mouth esophagus and stomach. LD (50) CAS 90-72-2 2.168g/kg (rat) LD (50) CAS 1477-55-0 1.75 g/kg (rat) LD (50) CAS 3236-53-1 1.75 g/kg (rat)
Chronic:	None known.

8: FIRST AID:

Eyes:	Flush eyes with water and/or 1% boric acid, lifting upper and lower lids occasionally for 30 minutes. Seek prompt medical attention.
Skin:	Wash with soap and water for at least 15 minutes. Remove contaminated clothing and wash before re-use. Destroy contaminated leather. Seek medical attention if irritation persists.
Ingestion:	Do not induce vomiting. Give large quantities of water or vinegar diluted with water. Get immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person.
Inhalation	Remove victim from exposure. If difficulty with breathing; administer oxygen and seek immediate medical assistance.

9. SPECIAL PROTECTION INFORMATION:

HMIS Personal Protection	C (Safety Glasses, Gloves, Apron)
Ventilation:	Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid the build up of heavy vapors.
Personal Protection:	Use eye protection and gloves. Selection of specific items such as gloves, boots and apron will depend on the operation. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH approved respirators for listed hazard. Confined spaces, rooms or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

10. ADDITIONAL INFORMATION:

DOT Proper Shipping Name:	Alkylamines, liquid, corrosive, n.o.s. (Benzene-1,3-dimethaneamine mixture)
DOT Hazard Class or Division:	8
Identification Number:	UN 2735
Packing group:	II
Labels Required:	CORROSIVE
WHMIS Classification:	Class B, Div. 3; Class D, Div. 2, Sub. A & B; Class E.
WHMIS Labeling:	Test tube, hand.
Shelf life:	18 months, minimum
Special Instructions:	Storage recommendations: Store at room temperature. Do not allow to freeze.