

F Form
Material Safety Data Sheet



Cover Sheet for Material Safety Data Sheet)
Epoxy Resin and Polyamide Curing Agent
201Epoxy Poly.doc

Product: FRS 2000, A & B

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Material Safety Data Sheet

Common Name (Trade name and synonyms): **FRS 2000, A & B**

Chemical Name: **Epoxy Resin and Polyamide Amine Curing Agent**

Chemical Family: **Epoxy; Amine**

CAS Number: **Mixture**

Section 1: Hazardous Ingredients

<u>Component</u>	<u>%</u>	<u>ACGIH TLV</u>
A: Epoxy Resin with no established TLV	>80	
Butyl Glycidyl Ether (BGE)	10-15	25 ppm
Titanium Dioxide (dispersed in resin)	1-2	10 mg/m ³
B: Polyamide with no established TLV	>90	

All ingredients are listed in the TSCA Inventory.

Section 2: Physical and Chemical Characteristics

Boiling Point (°F):	>225°F	Specific Gravity (water=1):	1.00
Vapor Pressure (mm/Hg):	Nil	Volatiles (% by volume):	0
Vapor Density (Air=1):	>1	Evaporation Rate (BuAc =1)	>1
Solubility in Water:	Negligible		
Appearance & Odor:	A: White paste B: Amber paste		

Section 3: Fire and Explosion Data

Flash Point (test method): >200°F (PMCC)

Flammable Limits in Air: (% by volume): **Lel:** N/A **Uel:** N/A

Extinguishing Media: Water spray, foam, CO₂, dry chemical

Special Fire Fighting Precautions/Procedures:

Avoid breathing smoke. In confined areas, full fire fighting equipment including a NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazards: None

Product: **FRS 2000, A & B**

Section 4: Health Hazard Information

Material Safety Data Sheet

Threshold Limit value (TLV): **Not established**
ANSI Hazard Class: **A: 4** **B: 4**
Signs and Symptoms of exposure:

Type of Exposure	Comp	
Acute Overexposure	A	Moderately irritating to skin and eyes. Possible skin sensitizer.
	B	Vapors are extremely irritating to skin and eyes
Chronic Overexposure	A	Pre-existing skin and eye disorders may be aggravated
	B	Unknown
Routes of Exposure		
Inhalation	A	Not likely to produce adverse effects due to low volatility
	B	Vapors are irritating to the skin, eyes and respiratory tract
Ingestion	A	Moderately toxic; may be harmful
	B	Moderate toxicity; may cause burns of mouth and throat
Skin Absorption	A	May possibly be absorbed through the skin in toxic amounts
	B	Repeated or prolonged exposure may be harmful
Skin Contact	A	Moderately irritating; may cause skin sensitization
	B	May cause chemical burns and/ or develop allergic reaction
Eye Contact	A	Moderately irritating
	B	Moderately irritating; permanent damage possible on prolonged exposure
Carcinogenicity		
NTP	A	No
	B	No
IARC	A	No
	B	No
OSHA	A	No
	B	No

Section 5: Emergency and First Aid Procedures

Skin: Remove contaminated clothing. Wash from skin with soap and water. Launder clothing prior to re-use.

Eyes: Flush with water for 15 minutes while holding eyelids open

Inhalation: Remove victim to fresh air. Administer oxygen if necessary

Ingestion: Do not induce vomiting. Give large doses of water. Get medical attention.

Material Safety Data Sheet

Product: FRS 2000, A & B

Section 6: Reactivity Data

Stability: Stable: X Unstable:
Conditions to Avoid: Elevated temperatures
Incompatibility (materials to avoid): Strong oxidizing agents, strong acids and bases
Hazardous Decomposition Products: Oxides of carbon and nitrogen
Hazardous Polymerization: May Occur: Will Not Occur: X
Conditions to Avoid: Large mixtures in bulk. Curing process is exothermic

Section 7: Spill and Leak Procedures:

Steps to be Taken if Material is Spilled or Released:

Avoid contact with liquid and vapors. Wipe with a cloth or collect on absorbent material. For large spills, dike and contain. Pump or shovel into salvage containers.

Waste Disposal Method:

Cure, then bury or incinerate. Remove salvage containers to a waste disposal site operating in compliance to federal, .

Section 8: Special Protection Information

Respiratory Protection (Specific Type):

For excessive vapors or to maintain below the TLV limit, NIOSH approved respirator in compliance to 29 CFR 1910.134.

Ventilation: Local Exhaust: Yes
Mechanical: Yes
Other: As required
Protective Gloves: Impervious rubber
Eye Protection: Splash-proof chemical goggles
Other Protective Equipment: For prolonged exposure, impervious clothing and
Shoes to minimize personal contact. Eye wash
Station; safety shower.

Section 9: SARA Title III Information

Section 302/304: Extremely Hazardous Substance

<u>Component</u>	<u>CAS #</u>	<u>%</u>	<u>RO (lbs)</u>	<u>TPO (lbs)</u>
None				

CERCLA Section 102 (a): Hazardous Substance

<u>Component</u>	<u>CAS #</u>	<u>%</u>	<u>RO (lbs)</u>
None			

Product: FRS 2000, A & B

Section 9: SARA Title III Information (continued):

Material Safety Data Sheet

Section 311: Hazardous Categorization

<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactive</u>	<u>Non-Applicable</u>
X	X				

Section 313: Toxic Chemicals

<u>Component</u>	<u>CAS #</u>	<u>%</u>
None		

Section 10: Special Precautions : For Industrial Use Only!

Warning Statements:

A:	May cause skin irritation; avoid contact with eyes.
B:	May cause severe eye burns.

Precautions to be taken in Handling and Storage:

Store in a cool, dry area in tightly closed containers. Avoid contact with skin and eyes. Use with adequate ventilation. Use good hygiene practices.

Other Precautions:

RCRA Status:	Not considered to be a hazardous waste
CERCLA:	Not listed
DOT Class:	A: Not regulated
	B: Not regulated

Section 11: Miscellaneous

	<u>HMIS Rating</u>	
	<u>A</u>	<u>B</u>
Health:	2	2
Flammability:	1	1
Reactivity:	0	0

This Material Safety data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1919,1200. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty expressed or implied concerning the accuracy of the information contained herein. It is the user's responsibility to determine the safety, toxicity and suitability of the product described herein. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist.

Original Date: 5/4/01 **Revision Date:** **Revision Number:**