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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: **21425 FAST CURE EPOXY PART 1**
Item No: **150345E**
Product Type: **Epoxy resin**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
ALUMINUM HYDROXIDE 21645-51-2	40-50	10 mg/m^3 TWA (dust)	Not listed
EPOXY RESIN (EPICHLOROHYDRIN, BISPHENOL A) 25085-99-8	30-50	Not listed	Not listed
TITANIUM DIOXIDE 13463-67-7	<10	10 mg/m^3	15 mg/m^3
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	<5	Not listed	Not listed
EPOXY RESIN 28906-96-9	<3	Not listed	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. May cause skin sensitization.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: Eyes: Exposure to liquid or vapor causes mild eye irritation. Symptoms may include burning, tearing, redness, stinging, blurred vision and corneal injury. Repeated skin contact may cause allergic skin reactions. Ingestion may cause nausea and vomiting.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
ALUMINUM HYDROXIDE 21645-51-2	40-50	Not Listed		
EPOXY RESIN (EPICHLOROHYDRIN, BISPHENOL A) 25085-99-8	30-50	Not Listed		Bisphenol A; Group 3, Vol. 71, pg 1285; 1999
TITANIUM DIOXIDE 13463-67-7	<10	male rat-negative, female rat-negative, male mice-negative, female mice-negative	A4	Group 2B; Vol 93,2006; Vol 47,1989
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	<5	Not Listed		
EPOXY RESIN 28906-96-9	<3	Not Listed		

Aggravated Medical Condition: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.
Inhalation: Move to fresh air in case of accidental inhalation of vapours. If not breathing, give artificial respiration. Obtain medical attention.
Skin Contact: Wash off with soap and water If skin irritation persists, call a physician Wash contaminated clothing before re-use
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°):	>400°F (204.4°C) PMCC
Recommended Extinguishing Media:	Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures:	Material will not burn unless preheated. Firefighters shoud wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact.
Hazardous Products of Combustion:	When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity
Unusual Fire/Explosion Hazards:	Heating above 149°C (300°F) in the presence of air may cause slow oxidation decomposition and above 260°C (500°F) may cause polymerization.
Lower Explosive Limit:	n/d
Upper Explosive Limit:	n/d

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:	Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers.

7. HANDLING AND STORAGE

Storage:	Store away from heat.
Handling:	Avoid contact with skin and eyes. Use in a well ventilated area. Avoid contact with vapors from heated material. Wash hands before eating and smoking. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:	Safety glasses.
Skin:	Neoprene or nitrile gloves recommended.
Ventilation:	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.
Respiratory Protection:	An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black viscous liquid
Odor:	Slight
Boiling Point:	>500°F (260°C)
pH:	Neutral
Solubility in Water:	Negligible
Specific Gravity:	1.53
VOC(Wt.%):	<1%
Vapor Pressure:	0.03 mm Hg @ 171°F
Vapor Density (Air=1):	>1
Evaporation Rate:	<1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal conditions
Hazardous Polymerization:	Will not occur
Incompatabilities:	Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines)
Conditions to Avoid:	Heat.
Hazardous Products of Combustion:	When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal:	Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number:	NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

U.S. Department of Transportation - DOT - 49 CFR (Ground)

DOT Shipping Name: Not regulated
Hazard Class: None
UN/ID Number: None

IATA (Air)

Proper Shipping Name: Not regulated
Class or Division: None
UN/ID Number: None

IMDG (Vessel)

Proper Shipping Name: Not regulated
Hazard Class: None
UN Number: None

Marine Pollutant: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

NONE

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1 , REACTIVITY 0.
Estimated HMIS Classification: HEALTH 2, FLAMMABILILTY 1, PHYSICAL HAZARD 0
(NFPA is a registered trademark of the National Fire Protection Association)
(HMIS is a registered trademark of the National Paint and Coatings Association)

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: **21425 FAST CURE EPOXY PART 2**
Item No: **150445E**
Product Type: **Epoxy hardener**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
ALUMINUM HYDROXIDE 21645-51-2	40-50	10 mg/m^3 TWA (dust)	Not listed
POLYMERCAPTAN CURING AGENT Proprietary	20-40	Not listed	Not listed
BENZYL ALCOHOL 100-51-6	<10	Not listed	Not listed
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 90-72-2	<10	Not listed	Not listed
STYRENE 100-42-5	<5	20 ppm	100 ppm

3. HAZARDS IDENTIFICATION

Toxicity: Corrosive. Severe irritation or burns, necrosis, blistering and permanent injury. Product can be absorbed through the skin and may cause nausea, headache and general discomfort. May cause lacrimation, conjunctivitis, corneal damage and may cause permanent injury (i.e. blindness). If the hardener is poorly ventilated, strongly heated or atomized, the vapor or mist can cause severe irritation of the respiratory tract, damage contacted tissue and produce scarring. Coughing and chest pain may result, nausea and vomiting in severe cases. Causes severe damage to mucous membranes if swallowed. May cause malaise, headache, discomfort, bleeding and vomiting of blood.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation

Signs and Symptoms of Exposure: Overexposure may cause eye and skin redness, difficulty breathing and vomiting. Contact with product at elevated temperatures can result in thermal burns.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
ALUMINUM HYDROXIDE 21645-51-2	40-50	Not Listed		
POLYMERCAPTAN CURING AGENT Proprietary	20-40	Not Listed		
BENZYL ALCOHOL 100-51-6	<10	male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence		
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 90-72-2	<10	Not Listed		
STYRENE 100-42-5	<5	male rat-negative; female rat-negative; male mice-equivocal; female mice-negative	A4 - Not Classifiable as a Human Carcinogen	Group 2B; Vol. 60, 1994; Monograph 82, 2002

Aggravated Medical Condition: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Obtain medical attention.

Skin Contact: Rinse immediately with plenty of water for at least 15 minutes Wash off with soap and water If skin irritation persists, call a physician

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >200°F (93.3°C)

Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures: Firefighters shoud wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact. Use water spray to cool exposed containers.

Hazardous Products of Combustion: Acrid and toxic fumes with organic amines, ammonia, oxides of carbon and nitrogen

Unusual Fire/Explosion Hazards: Sudden reaction and fire may result if product is mixed with an oxidizing agent.

Lower Explosive Limit: n/d

Upper Explosive Limit: n/d

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Wear appropriate protective and respiratory equipment. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers.

7. HANDLING AND STORAGE

Storage: Store away from heat. Do not store in reactive metal containers. Keep away from acids and oxidizers.

Handling: Avoid prolonged skin contact. Keep away from eyes. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Wash hands and face after handling this compound. Discard contaminated leather gloves and shoes. Do not mix with sodium nitrite or other nitrosating agents as cancer-causing nitrosamines could be formed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields or chemical goggles.

Skin: Neoprene or nitrile gloves recommended.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.

Respiratory Protection: An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black paste

Odor: Mercaptan

Boiling Point: >300°F (148.8°C)

pH: Does not apply

Solubility in Water: Slight

Specific Gravity: 1.4

VOC(Wt.%): 10.8%

Vapor Pressure: <5 mm Hg @ 77°F

Vapor Density (Air=1): >1

Evaporation Rate: <1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

Hazardous Polymerization: Will not occur

Incompatabilities: Strong oxidizers, Sodium/calcium hypochlorite, Peroxides, Reactive metals (e.g. Na, Ca, zinc), Acids

Conditions to Avoid: Heat. Corrodes base metals.

Hazardous Products of Combustion: Acrid and toxic fumes with organic amines, ammonia, oxides of carbon and nitrogen

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

U.S. Department of Transportation - DOT - 49 CFR (Ground)

DOT Shipping Name: Amines, liquid, corrosive,n.o.s., (Tris-2,4,6-(Dimethylaminomethyl) Phenol), Limited Quantity
Hazard Class: Class 8 PGIII
UN/ID Number: UN 2735

IATA (Air)

Proper Shipping Name: Consumer Commodity
Class or Division: Class 9
UN/ID Number: ID 8000

IMDG (Vessel)

Proper Shipping Name: Amines, liquid, corrosive,n.o.s., (Tris-2,4,6-(Dimethylaminomethyl) Phenol), Limited Quantity
Hazard Class: Class 8 PGIII
UN Number: UN 2735

Marine Pollutant: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

STYRENE

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 1 , REACTIVITY 0.
Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 1, PHYSICAL HAZARD 0
(NFPA is a registered trademark of the National Fire Protection Association)
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