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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 21426 FAST CURE EPOXY PART 1
Item No: 150345F
Product Type: Epoxy

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Weight Percent	ACGIH TLV:	OSHA PEL:
ALUMINUM HYDROXIDE 21645-51-2	40-50	10 mg/m ³ dust	15 mg/m ³ dust; 5 mg/m ³ respir.
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	30-60	Not Listed	Not Listed
TITANIUM DIOXIDE 13463-67-7	1-10	10 mg/m ³ TWA ACGIH	15 mg/m ³ TWA (total dust)
EPOXY RESIN 28906-96-9	1-10	Not Listed	Not Listed
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m ³ TWA	3.5 mg/m ³ TWA

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. May cause skin sensitization. Contact at elevated temperatures can cause permanent damage to eyes including blindness.

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.

Ingredient	Weight Percent	NTP	ACGIH Carcinogens	IARC
TITANIUM DIOXIDE 13463-67-7	1-10	male rat-negative, female rat-negative, male mice-negative, female mice-negative	A4	Group 2B; Vol 93,2006; Vol 47,1989
CARBON BLACK 1333-86-4	0.1-1.0		Group A4 - Not classifiable as a human carcinogen	Group 2B; Monograph 65, 1996

Medical Conditions Recognized as Being Aggravated by Exposure: 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. If not breathing, give artificial respiration. Obtain medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Eye Contact: Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): >400°F Method: PMCC

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

Special Fire-Fighting Procedures: Material will not burn unless preheated. Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact.

5. FIRE FIGHTING MEASURES

Hazardous Products of Combustion:

When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity
Heating above 300°F in the presence of air may cause slow oxidation decomposition and above 500°F may cause polymerization.

Unusual Fire/Explosion Hazards:

Lower Explosive Limit:

Not determined

Upper Explosive Limit:

Not determined

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 only 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:

Rubber or plastic gloves.

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 respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Clear viscous liquid

Odor:

Slight

Boiling Point:

>500°F

pH:

Neutral

Solubility in Water:

Negligible

Specific Gravity:

1.53

VOC Content(Wt.%):

<1% by weight

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.

Incompatibilities:

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (esp. primary and secondary aliphatic amines)
Heat

Conditions to Avoid:

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

Oral LD50 (rat) = 11.4 g/kg

Dermal LD50 (rabbit) = >20 ml/kg

Eye irritation: Draize = 2 (rabbit)

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)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: None
UN/ID Number: None
Marine Pollutant: None

IATA

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

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

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

NONE

CALIFORNIA PROP 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:

Listed on Inventory: YES 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 1

Estimated HMIS Classification: HEALTH 2, FLAMMABILILTY 1, PHYSICAL HAZARD 0

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HMIS is a registered trademark of the National Paint and Coatings Assn.

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Company: Permatex, Inc. 10 Columbus Blvd. Hartford, CT USA 06106

Revision Date: June/01/2006

Revision Number: 3

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 21426 FAST CURE EPOXY PART 2
Item No: 150445F
Product Type: Epoxy

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Weight Percent	ACGIH TLV:	OSHA PEL:
POLYMERCAPTAN CURING AGENT MIXTURE	20-40	Not Listed	Not Listed
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 90-72-2	5-10	Not Listed	Not Listed
BENZYL ALCOHOL 100-51-6	1-10	Not Listed	Not Listed
STYRENE 100-42-5	3-7	20 ppm TWA	100 ppm TWA

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
 Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry:

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.

Ingredient	Weight Percent	NTP	ACGIH Carcinogens	IARC
BENZYL ALCOHOL 100-51-6	1-10	male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence		
STYRENE 100-42-5	3-7	male rat-negative; female rat-negative; male mice-equivocal; female mice-negative	A4 - Not Classifiable as a Human Carcinogen	Group 2B; Vol. 60, pg. 233, 1994; Monograph 82, 2002

Medical Conditions Recognized as Being Aggravated by Exposure:

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. Keep individual calm. Obtain medical attention Never give fluids or induce vomiting if the victim is unconscious or having convulsions If spontaneous vomiting occurs, hold the victim's head lower than hips to prevent aspiration

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Immediately remove contaminated clothing and excess contaminant. Flush with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.

Eye Contact:

Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C):

>200°F Method: Estimated

Recommended Extinguishing Media:

Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures:

Firefighters should 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:

Not determined

Upper Explosive Limit:

Not determined

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. 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 thoroughly with soap and water after handling. 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:

Wear safety glasses or goggles to protect against exposure.

Skin:

Neoprene, rubber or butyl rubber gloves.

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 respirator (i.e. NIOSH, etc.) 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

pH:

Does not apply

Solubility in Water:

Slight

Specific Gravity:

1.4

VOC Content(Wt.%):

Not determined

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

Incompatibilities:

Strong oxidizers. Materials reactive with hydroxyl compounds. Sodium/calcium hypochlorite. Peroxides. Reactive metals (e.g. Na, Ca, zinc). Acids.

Conditions to Avoid:

Excessive heat. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

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)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Amines, liquid, corrosive, n.o.s., (Tris-2,4,6-(dimethylaminomethyl)phenol), Limited Quantity
Class or Division: Class 8, Packing Group III
UN/NA Number: UN 2735

IMDG

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

15. REGULATORY INFORMATION

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

STYRENE

CALIFORNIA PROP 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

TSCA Inventory Status:

Listed on Inventory: YES 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 1
Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 1, PHYSICAL HAZARD 0
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Revision Date: 01/16/2006
Revision Number: 1