Material Safety Data Sheet

For Coatings, Resins and Related Materials

•NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

•24 Hour Emergency: 1-800-123-4567 CHEMTREC: 1-800-424-9300
•National Response in Canada CANUTEC: 613-996-6666
•Outside U.S. and Canada Chemtrec: 202-483-7616

Section 1 - Chemical Product / Company Information

Product Name:	COMP A, MILPRF22750F, 16473	Revision Date:	07/02/2007
Identification Number:	01GY100	Print Date:	
Product Use/Class:	EPOXY		
Manufacturer:	Deft, Inc. (CAGE CODE 33461) 17451 Von Karman Ave Irvine, Ca. 92614	Information Phone: Emergency Phone:	(949) 474-0400 (800) 424-9300

Section 2 - Hazards Identification

*** Emergency Overview ***: Light gray liquid with solvent odor. Flammable liquid and vapors. Harmful by inhalation, in contact with skin, and if swallowed. May cause burns to the skin. Contact with eyes or skin causes irritation. Affects the central nervous system.

Effects Of Overexposure - Eye Contact: Exposure to liquid, aerosol, or vapors may cause irritation, tearing, redness, and swelling accompanied by a stinging sensation. Contact with eyes may cause blurred vision. A component may cause damage to the tissue of the eye.

Effects Of Overexposure - Skin Contact: Direct skin contact may cause irritation. Symptoms may include swelling, redness, pain, numbness, drying, rash, blistering, and skin burns. Material may pass through the skin and cause effects similar to breathing or ingestion. Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties. A component may cause allergic skin reaction (blistering, scaling, rash). A component may cause numbness.

Effects Of Overexposure - Inhalation: Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes) & acute nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, dullness, weakness, fatigue, drowsiness, unconsciousness, coma, or possible death. Exposure may cause difficult breathing, shortness of breath, coughing, or narcosis. Inhalation may cause headaches, difficult breathing, and loss of consciousness. Harmful by inhalation. Exposure to a component may cause nausea, a runny nose, narcosis, respiratory failure, coughing, convulsions, or death. A component may be harmful if inhaled in large quantities.

Effects Of Overexposure - Ingestion: Ingestion may cause gastrointestinal irritation, abdominal pain, nausea, vomiting, and diarrhea. May result in possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis that may lead to possible death. Harmful or fatal if swallowed. Ingestion causes damage to the central nervous system. It may include, acute nervous system depression, which is characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, drowsiness, unconsciousness, or coma. The gastrointestinal tract lining may be damaged through the ingestion of a component.

Effects Of Overexposure - Chronic Hazards: Prolonged contact will cause drying and cracking of the skin, due to defatting action. Repeated or prolonged contact causes sensitization, asthma, and eczemas. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Contains components listed as a Carcinogen: NTP? : No, IARC Monographs? : Yes, OSHA Regulated? : No. May cause muscle weakness and loss of coordination. Purposely concentrating and inhaling solvent vapors may cause damage to the nervous system and brain. WARNING: This product contains a chemical (carbon black) known to the state of California to cause cancer as airborne, unbound particles of respirable size. In animal studies, a component caused histopathological changes in the skeletal muscles, thymus, and brain. It also caused depression in the CNS. In animal studied a component caused damage to the respiratory tract and lungs.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Ingestion, Eye Contact

Section 3 - Composition / Information On Ingredients

Component	CAS Number	Weight % Reporting Ranges

TITANIUM DIOXIDE	13463-67-7	30-60
BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL	98-56-6	10-30
BENZYL ALCOHOL	100-51-6	3-7
ETHYL 3-ETHOXYPROPIONATE	763-69-9	1-5
ACETONE	67-64-1	1-5
TOLUENE	108-88-3	1-5
CARBON BLACK	1333-86-4	0.1-1.0

ALL INGREDIENTS ARE ON THE TSCA INVENTORY LIST, UNLESS OTHERWISE NOTED IN SECTION 8.

Section 4 - First Aid Measures

First Aid - Eye Contact: If material gets into eyes, flush with water immediately for 20 minutes. Hold eyelids open to rinse out the entire eye. Consult a physician. If symptoms develop (irritation) from airborne exposure, move to fresh air.
First Aid - Skin Contact: Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water and wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse or discard. If rash or other symptoms develop (irritation), consult a physician.
First Aid - Inhalation: Move to fresh air in case of accidental inhalation of vapors. Give oxygen or artificial respiration if needed. Asthmatic type symptoms may develop and maybe immediate or delayed by several hours. In the case of inhalation of aerosol/mist, call 911 immediately.
First Aid - Ingestion: Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical help.

Section 5 - Fire Fighting Measures

Flash Point (°F): -20 TCC LOWER EXPLOSIVE LIMIT (%): 1.0 UPPER EXPLOSIVE LIMIT (%): 12.
Extinguishing Media: Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam, Water Fog, Water Spray
Unusual Fire And Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Fire or intense heat may cause violent rupture of packages. Application to hot surfaces requires special precautions. Toxic gases may form when product burns. Remove all sources of ignition. Flammable liquid and vapors. Vapors and fumes may form explosive mixtures with air. Vapors are heavier than air and may travel/spread along the floors/ground. In addition, vapors may flow along surfaces or they can be moved by ventilation, to a distant source of ignition and flashback. Do not use a cutting or welding torch near or on a drum of product, because vapors may ignite explosively, even if the drum is empty and contains only product residue. Fire may ensue when product comes in contact with strong oxidizers. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. A component may float and ignite on the surface of water.
Special Firefighting Procedures: In the event of fire, wear self-contained breathing apparatus. Firefighters should wear full protective clothing. Flammable. Cool fire-exposed containers using water spray.

Section 6 – Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate area. Contain and remove spilled material with inert absorbent and non-sparking tools. Use personal protective equipment as necessary. Dike to prevent entering any sewer or waterway. Soak up with vermiculite or inert absorbent material and dispose of as hazardous waste.

Section 7 - Handling and Storage

Handling: Prevent prolonged breathing of vapors or spray mist. Avoid contact with eyes and skin. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Keep away from heat and sources of ignition. Use only in ventilated areas. Use safety precautions with empty containers. Empty containers may contain hazardous materials (product residues) in the form of solids, liquids, or vapors. Do not reuse empty containers without commercial cleaning or reconditioning. Always use grounding leads when transferring from one container to another. Do not drill, solder, pressurize, grind, cut, weld, or braze empty container. Do not expose empty container to static electricity, heat, flame, sparks, or any source of ignition. Protect container against physical damage.
Storage: Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Keep containers upright to prevent leakage and tightly closed in a dry, cool, and well-ventilated place. Keep away from incompatible material.

Section 8 - Exposure Controls / Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL

TITANIUM DIOXIDE	10 mg/m3	N.E.	15 mg/m3	N.E.
BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL	N.E.	N.E.	N.E.	N.E.
BENZYL ALCOHOL	N.E.	N.E.	N.E.	N.E.
ETHYL 3-ETHOXYPROPIONATE	N.E.	N.E.	N.E.	N.E.
ACETONE	500 ppm	750ppm	750 ppm	1000 ppm
TOLUENE	50 ppm	N.E.	100 ppm	150 ppm
CARBON BLACK	3.5 mg/m3	N.E.	3.5 mg/m3	N.E.

Notes

TITANIUM DIOXIDE CAS# 13463-67-7 - ACGIH/TLV & OSHA/PEL exposure limits are for the total dust. IARC Group 2B possibly carcinogenic to humans. Titanium Dioxide is considered by NIOSH to be a potential occupational carcinogen under Hazard Communication Standard, 29 CFR 1910.1200. This was based on NIOSH's interpretation of the study by Lee, Trochimowicz, and Reinhardt [1985], "Pulmonary Response of Rats Exposed to Titanium Dioxide (TiO2) by Inhalation for Two Years." "The authors of this study concluded that based on the excessive dust loading and overwhelmed clearance mechanism in the lungs of rats exposed chronically at 250 mg/m3 (6 hrs/day, 5 days/week for 2 years), the biological relevance of lung tumors to man appears to be negligible."
BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL CAS# 98-56-6 prolonged or repeated exposure to large amount through breathing or swallowing has been shown cause damage to the liver and kidneys in animal studies.
BENZYL ALCOHOL CAS# 100-51-6 - In laboratory studies, Benzyl alcohol has been shown to cause harm to the fetus of animals. Significance of these findings in humans is unknown.
ETHYL 3-ETHOXYPROPIONATE CAS# 763-69-9 - Manufacturer recommends a workplace exposure limit of 50 ppm-TWA; 100 ppm-STEL. This component has been shown to cause harm to the fetus in laboratory animals. It only caused harm at levels of overexposure that would also harm the pregnant animal. The relevance to humans is unknown. It also has been shown to cause mild, reversible liver effects in laboratory animals.
CARBON BLACK CAS# 1333-86-4 - IARC GROUP 2B: possibly carcinogenic to humans.

Engineering Controls: Local ventilation of emission sources may be necessary to maintain ambient concentrations below permissible OSHA exposure limits. Remove all ignition sources (heat, sparks, flame, and hot surfaces).
Respiratory Protection: A respirator that is recommended or approved for use in an organic vapor environment (air purifying or fresh air supplied) is necessary. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below the OSHA permissible limits.
Skin Protection: Chemical-resistant gloves (neoprene, natural rubber) should be used to prevent skin contact.
Eye Protection: Wear safety eyewear (safety glasses, safety glasses with side-shields, chemical goggles, or face shields) to prevent eye contact.
Other protective equipment: Long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse or discard. Safety shower and eyewash station should be located in immediate work area. Wear boots that are chemical-resistant.
Hygienic Practices: Wash hands before breaks, eating, smoking, using washroom, and at the end of the workday.

Section 9 - Physical and Chemical Properties

Boiling Range (°F):	N.D. - N.D.	Vapor Density:	Heavier than air
Odor:	Solvent odor	Odor Threshold:	N.D.
Appearance:	Light gray liquid	Evaporation Rate:	N.D.
Solubility in H2O:	Insoluble		
Freeze Point:	N.D.	Specific Gravity:	1.574
Vapor Pressure:	N.D.	PH:	N.A.
Physical State:	Liquid	Viscosity:	Thin liquid to heavy viscous material

(See section 16 for abbreviation legend)

Section 10 - Stability and Reactivity

Conditions To Avoid: Avoid high temperatures, sparks, or open flames. Do not breathe vapors or spray mist.
Incompatibility: Material is incompatible with strong oxidizers, alkalis (strong alkalies), reducing agents, strong acids (including Lewis and mineral), chromic anhydride, chromyl alcohol, hexachloromelamine, and hydrogen peroxide. Also, incompatible with permonosulfuric acid, chloroform, chlorine compounds, potassium t-butoxide, and thioglycol. Reacts with amines and mercaptans. Avoid contact with aluminum and iron. A component is incompatible with concentrated nitric acid or sulphuric acid, molten sulphur, or halogens.
Hazardous Decomposition: Thermal decomposition can lead to the generation and release of gases and vapors including carbon monoxide, carbon dioxide, aldehydes, and acids (organic). Sulfur oxides when burned. May produce gases containing fluorine or chlorine.
Hazardous Polymerization: Will not occur.
Stability: Stable under recommended storage conditions.

Section 11 - Toxicological Information

Product LD50: N.E. Product LC50: N.E.

Section 12 - Ecological Information

Ecological Information: No Information.

Section 13 - Disposal Information

Disposal Information: Dispose of waste in accordance with federal, state, and local environmental regulations. Empty containers will contain product residue and flammable vapors. Handle as hazardous material. Do not incinerate closed containers. EPA Hazardous Waste Number/Code: D001, F003, F005. Hazardous Waste Characteristics: Ignitability and Reactivity.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	N.A.
DOT Technical Name:	N.A.	Hazard Subclass:	N.A.
DOT Hazard Class:	Flammable liquid 3	Resp. Guide Page:	N.A.
DOT UN/NA Number:	UN-1263	IATA:	Yes

Section 15 - Regulatory Information

CERCLA – SARA Hazard Category
This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD, PRESSURIZED GAS HAZARD

SARA Section 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Component	CAS Number	Percent By Weight
TOLUENE	108-88-3	1.84

Toxic Substances Control Act:
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Component	CAS Number
ETHYL 3-ETHOXYPROPIONATE	763-69-9

U.S. State Regulations: As follows –
New Jersey Right-to-Know:
The following materials are non-hazardous, but are among the top five components in this product.

Component	CAS Number
EPOXY RESIN	25085-99-8
EPOXY RESIN	PROPRIETARY
EPOXY RESIN	25036-25-3

Pennsylvania Right-to-Know:
The following non-hazardous ingredients are present in the product at greater than 3%.

Component	CAS Number
EPOXY RESIN	25085-99-8
EPOXY RESIN	PROPRIETARY
EPOXY RESIN	25036-25-3
CERAMIC MICROSPHERES	66402-68-4

California Proposition 65:
Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

Component	CAS Number
CARBON BLACK	1333-86-4
ACRYLIC COPOLYMER	26376-86-3
FORMALDEHYDE	50-00-0
ETHYL ACRYLATE	140-88-5

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

Component	CAS Number
TOLUENE	108-88-3

ACRYLIC COPOLYMER 26376-86-3

International Regulations: As follows –
CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.
CANADIAN WHMIS CLASS: N.A.

Section 16 - Other Information

HMIS Ratings:

Health: 3	Flammability: 4	Reactivity: 1	Personal Protection: H

VOLATILE ORGANIC COMPOUNDS, GR/LTR: 221.1
VOLATILE ORGANIC COMPOUNDS, LB/GAL: 1.85
VOLATILE ORGANIC COMPOUNDS MIXED, GR/LTR: <= 340
VOLATILE ORGANIC COMPOUNDS MIXED, LB/GAL: <= 2.83
VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), GR/LTR: 172.1
VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), LB/GAL: 1.44
REASON FOR REVISION: Updated information in sections 2, 3, 4, 5, 6, 7, 8, and 10.
REGULATORY CODE: 01GY100
LAYOUT CODE: A2004R
Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined
The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

Material Safety Data Sheet

For Coatings, Resins and Related Materials

•NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

•24 Hour Emergency: 1-800-123-4567 CHEMTREC: 1-800-424-9300
•National Response in Canada CANUTEC: 613-996-6666
•Outside U.S. and Canada Chemtrec: 202-483-7616

Section 1 - Chemical Product / Company Information

Product Name:	MIL-PRF-22750F (MIL-C-22750E)	Revision Date:	05/14/2007
Identification Number:	80X109	Print Date:	06/05/2007
Product Use/Class:	POLYAMIDE		
Manufacturer:	Deft, Inc. (CAGE CODE 33461) 17451 Von Karman Ave Irvine, Ca. 92614	Information Phone: Emergency Phone:	(949) 474-0400 (800) 424-9300

Section 2 - Hazards Identification

*** Emergency Overview ***: Amber liquid with solvent odor. Flammable liquid. Harmful by inhalation, in contact with skin, and if swallowed. May cause burns to the eyes and skin. Contact with the respiratory system, skin, or eyes maybe corrosive. Contact with eyes or skin causes irritation. May cause liver and kidney damage.

Effects Of Overexposure - Eye Contact: Exposure to liquid, aerosol, or vapors may cause irritation, tearing, redness, and swelling accompanied by a stinging sensation. Direct eye contact may cause irritation. Exposure to vapors in low concentrations may cause the following temporary effects conjunctivitis, lacrimation, and corneal edema. Contact maybe corrosive to the eyes and cause burns. May cause corneal edema and conjunctivitis.

Effects Of Overexposure - Skin Contact: Direct skin contact may cause irritation. Symptoms may include drying and cracking of skin, swelling, redness, pain, numbness, rash, burning, blistering, and skin burns. Material may pass through the skin and cause effects similar to breathing or ingestion. Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties. Contact maybe corrosive to the skin and may cause sensitization.

Effects Of Overexposure - Inhalation: Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes) & acute nervous system depression characterized by the following progressive steps: headache, nausea, weakness, dizziness, staggering gait, confusion, fatigue, drowsiness, unconsciousness, or coma. Inhalation of may cause a dry nasal passageway, headaches, difficult breathing, loss of consciousness, tightness of the chest, shortness of breath, and a sore throat and cough. Contact maybe corrosive to the respiratory system.

Effects Of Overexposure - Ingestion: May result in irritation and possible corrosive action in the mouth, stomach tissue and digestive tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis. May cause nausea, vomiting, and diarrhea. Lung inflammation or other lung injury may occur if a component enters the lungs through vomiting or swallowing.

Effects Of Overexposure - Chronic Hazards: Prolonged contact will cause drying and cracking of the skin, due to defatting action. Skin sensitization, asthma, or other allergic responses may develop. Kidney and liver damage may occur from prolonged or repeated overexposures. Listed as a Carcinogen: NTP? : No, IARC Monographs? : No, OSHA Regulated? : No. Exposure may cause mild, temporary changes in the liver and low blood pressure. In animal studies, exposure to a component(s) has been shown to cause damage to the fetus, only at a level of exposure that would also harm the pregnant animal. The relevance of these findings to humans is unknown. In animal studies a component caused histopathological changes in the skeletal muscles, thymus, and brain. It also caused depression in the CNS.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Ingestion, Eye Contact

Section 3 - Composition / Information On Ingredients

Component	CAS Number	Weight % Reporting Ranges
sec-BUTYL ALCOHOL	78-92-2	30-60
BENZYL ALCOHOL	100-51-6	15-40
4,4'-METHYLENEBISCYCLOHEXANAMINE	1761-71-3	5-10
TRIETHYLENTETRAMINE	112-24-3	1-5

ALL INGREDIENTS ARE ON THE TSCA INVENTORY LIST, UNLESS OTHERWISE NOTED IN SECTION 8.

Section 4 - First Aid Measures

First Aid - Eye Contact: If material gets into eyes, flush with water immediately for 15 minutes. Hold eyelids open to rinse out the entire eye. Consult a physician. If eyes are irritated from airborne exposure, move to fresh air.
First Aid - Skin Contact: Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water and wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse or discard. If shock occurs, take measures to treat condition.
First Aid - Inhalation: Move to fresh air in case of accidental inhalation of vapors. Give oxygen or artificial respiration if needed. Asthmatic type symptoms may develop and may be immediate or delayed by several hours. In the case of inhalation of aerosol/mist consult a physician, if necessary.
First Aid - Ingestion: Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical help.

Section 5 - Fire Fighting Measures

Flash Point (°F): 72 TCC LOWER EXPLOSIVE LIMIT (%): 1.7 UPPER EXPLOSIVE LIMIT (%): 9.8
Extinguishing Media: Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam, Water Fog, Water Spray, Dry Sand
Unusual Fire And Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Fire or intense heat may cause violent rupture of packages. Application to hot surfaces requires special precautions. Toxic gases may form when product burns. Remove all sources of ignition. Vapors are heavier than air and may spread along floors. Vapors may flow along surfaces to a distant ignition source. Do not use a cutting or welding torch near or on a drum of product, because vapors may ignite explosively, even if the drum is empty and contains only product residue. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
Special Firefighting Procedures: In the event of fire, wear self-contained breathing apparatus. Firefighters should wear full protective clothing. Flammable. Cool fire-exposed containers using water spray.

Section 6 – Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate area. Contain and remove spilled material with inert absorbent and non-sparking tools. Use personal protective equipment as necessary. Dike to prevent entering any sewer or waterway.

Section 7 - Handling and Storage

Handling: Prevent prolonged breathing of vapors or spray mist. Avoid contact with eyes and skin. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Keep away from heat and sources of ignition. Always use grounding leads when transferring from one container to another.
Storage: Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Keep containers upright to prevent leakage and tightly closed in a dry, cool, and well-ventilated place.

Section 8 - Exposure Controls / Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
sec-BUTYL ALCOHOL	100 ppm	N.E.	100 ppm	N.E.
BENZYL ALCOHOL	N.E.	N.E.	N.E.	N.E.
4,4'-METHYLENEBISCYCLOHEXANAMINE	N.E.	N.E.	N.E.	N.E.
TRIETHYLENTETRAMINE	N.E.	N.E.	N.E.	N.E.

Notes
BENZYL ALCOHOL CAS# 100-51-6 - In laboratory studies, Benzyl alcohol has been shown to cause harm to the fetus of animals. Significance of these findings in humans is unknown.

Engineering Controls: Local ventilation of emission sources may be necessary to maintain ambient concentrations below permissible OSHA exposure limits. Remove all ignition sources (heat, sparks, flame, and hot surfaces).
Respiratory Protection: A respirator that is recommended or approved for use in an organic vapor

environment (air purifying or fresh air supplied) is necessary. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below the OSHA permissible limits.
Skin Protection: Chemical-resistant gloves (cotton, neoprene, rubber, polyethylene) should be used to prevent skin contact.
Eye Protection: Wear safety eyewear (safety glasses, safety glasses with side-shields, chemical goggles, or face shields) to prevent eye contact.
Other protective equipment: Long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse or discard. Safety shower and eyewash station should be located in immediate work area. Wear boots that are chemical-resistant.
Hygienic Practices: Wash hands before breaks, eating, smoking, using washroom, and at the end of the workday.

Section 9 - Physical and Chemical Properties

Boiling Range (°F):	211 - N.D.	Vapor Density:	Heavier than air
Odor:	Solvent odor	Odor Threshold:	N.D.
Appearance:	Amber liquid	Evaporation Rate:	0.75 x n-Butyl Acetate
Solubility in H2O:	Insoluble		
Freeze Point:	N.D.	Specific Gravity:	0.932
Vapor Pressure:	N.D.	PH:	N.A.
Physical State:	Liquid	Viscosity:	Thin liquid to heavy viscous material

(See section 16 for abbreviation legend)

Section 10 - Stability and Reactivity

Conditions To Avoid: Avoid high temperatures. Epoxy resins under uncontrolled conditions. Do not breathe vapors or spray mist.
Incompatibility: Material is incompatible with oxidizing agents, strong acids, alkalis, reducing agents, reactive metals, amines, sodium hypochlorite, or calcium hypochlorite. Epoxy resins under uncontrolled conditions. Avoid contact with aluminum and iron.
Hazardous Decomposition: Thermal decomposition can lead to the generation and release of gases and vapors including carbon monoxide, carbon dioxide, nitrogen oxides, aldehydes, hydrocarbons, and acids (organic).
Hazardous Polymerization: Will not occur.
Stability: Stable under recommended storage conditions.

Section 11 - Toxicological Information

Product LD50: N.E. Product LC50: N.E.

Section 12 - Ecological Information

Ecological Information: No Information.

Section 13 - Disposal Information

Disposal Information: Dispose of waste in accordance with federal, state, and local environmental regulations. Empty containers will contain product residue and flammable vapors. Handle as hazardous material. Do not incinerate closed containers. EPA Hazardous Waste Number/Code: D001, F003, F005. Hazardous Waste Characteristics: Ignitability and Reactivity.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	II
DOT Technical Name:	N.A.	Hazard Subclass:	N.A.
DOT Hazard Class:	Flammable Liquid 3	Resp. Guide Page:	N.A.
DOT UN/NA Number:	UN-1263	IATA:	Yes

Section 15 - Regulatory Information

The following components are not subject to reporting in Section 3:

Component	CAS Number	Weight % Reporting Ranges
POLYAMIDE RESIN	TRADE SECRET	10-30
AMINE	129733-57-9	5-10

CERCLA – SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

SARA Section 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Component	CAS Number	Percent By Weight
sec-BUTYL ALCOHOL	78-92-2	37.50

Toxic Substances Control Act:
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:
None

U.S. State Regulations: As follows –
New Jersey Right-to-Know:
The following materials are non-hazardous, but are among the top five components in this product.

Component	CAS Number	Percent By Weight
POLYAMIDE RESIN	TRADE SECRET	10-30
AMINE	129733-57-9	5-10

Pennsylvania Right-to-Know:
The following non-hazardous ingredients are present in the product at greater than 3%.

Component	CAS Number	Percent By Weight
POLYAMIDE RESIN	TRADE SECRET	10-30
AMINE	129733-57-9	5-10

California Proposition 65:
Warning: The following ingredients present in the product are known to the state of California to cause Cancer:
None

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.
None

International Regulations: As follows –
CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.
CANADIAN WHMIS CLASS: B2, D1B, D2B, E

Section 16 - Other Information

HMIS Ratings:
Health: 3 Flammability: 4 Reactivity: 1 Personal Protection: G

VOLATILE ORGANIC COMPOUNDS, GR/LTR: 589.3
VOLATILE ORGANIC COMPOUNDS, LB/GAL: 4.92
VOLATILE ORGANIC COMPOUNDS MIXED, GR/LTR: <= 340
VOLATILE ORGANIC COMPOUNDS MIXED, LB/GAL: <= 2.8
VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), GR/LTR: 589.3
VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), LB/GAL: 4.92
REASON FOR REVISION: SCAQMD RULE 443.1 was added to the MSDS. Information in sections 1, 2, 3, 4, 5, 6, 7, 8, 10, 14, 15 and 16 have been updated.
REGULATORY CODE: 80X109
LAYOUT CODE: A2004FDR
Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined
The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.