

## MATERIAL SAFETY DATA SHEET

### Polyurethane 501 Part A

#### SECTION I

##### Product Identification and General Information

Product Name: Polyurethane 501 Part A  
Product Class: Polyester/Acrylic Resin Dispersion  
HMIS Codes: H F R P  
1 0 0 G

Date Prepared: 4/21/99  
24 Hour Emergency Assistance: Chemtrec  
1-800-424-9300

#### SECTION II

##### Hazardous Ingredients

None

##### CAS#

##### OSHA PEL

##### ACGIH TLV

#### SECTION III

##### Physical Data

Boiling Point: 212° F  
Vapor Pressure: 29.33mm Hg @ 68° F  
Vapor Density: .569  
Specific Gravity: 1.0  
Percent Volatiles: 75%

Solubility in Water: Dispersible  
Evaporation Rate: .38  
Appearance: Light straw-colored liquid  
Odor: Slight ammonia odor

#### SECTION IV

##### Fire and Explosion Hazard Data

Flash Point: Greater than 250° F (SETA Flash c.c.)

Flammable Limits:

LEL: 16

UEL: 25

Extinguishing media: Dry chemical, carbon dioxide, foam, water.

Hazardous Combustion Products: CO<sub>2</sub>, CO and other aliphatic fragments.

Special Fire Fighting Procedures: Fire-fighter should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed to fire.

Fire and Explosion Hazards: Product will not burn but may spatter if temperature exceeds boiling points of water.

Dried solids can burn giving off hazardous decomposition products. After water evaporates, remaining material will burn.

Fire and Explosion Hazards: Toxic gases may be generated by thermal decomposition.

#### SECTION V

##### Reactivity Data

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: None known

## **SECTION VI**

### **Health Hazard Data**

Primary Route of Entry: Skin or eye contact, inhalation.

Eye Contact: Can cause moderate irritation.

Skin Contact: Can cause moderate irritation.

Inhalation: Can cause irritation to nasal passages; throat plus lungs.

Ingestion: Can cause gastrointestinal irritation.

Chronic Overexposure: Can cause damage to the respiratory system, lungs, eyes, skin and central nervous system.

## **SECTION VII**

### **First Aid**

Eyes: Flush with clean water for at least 15 minutes.

Skin: Remove contaminated clothing. Wash affected areas with soap and water.

Ingestion: Consult physician.

Inhalation: Move to fresh air.

## **SECTION VIII**

### **Special Protection Information**

Respiratory Protection: NIOSH approved organic vapor respirator should be used where ventilation is inadequate.

Ventilation: General dilution ventilation that maintains vapor levels below the appropriate exposure limit is recommended.

Eye Protection: Safety glasses or goggles are recommended.

Skin Protection: Impermeable gloves are recommended.

## **SECTION IX**

### **Spill or Leak Procedures**

Steps to be taken if material is released or spilled: Cover spill with absorbent material, collect for disposal. Wash spill area with hot water.

Waste Disposal Method: Dispose of in compliance with all local, state and federal government regulations.

## **SECTION X**

### **Shipping Data**

D.O.T. Shipping Name: Epoxy Paint

Technical Shipping Name: Polyol Solution

D.O.T. Hazard Class: Not Regulated

UN/NA Number: None

Reportable Quantity: None

D.O.T. Labels Required: None

Freight Class: 55

## MATERIAL SAFETY DATA SHEET

### Polyurethane 501 Part B

#### SECTION I

##### Product Identification and General Information

Product Name: Polyurethane 501 Part B  
Product Class: Aliphatic Polyisocyanate  
HMIS Codes: H F R P  
2 1 1 G

Date Prepared: 4/21/99  
24 Hour Emergency Assistance: Chemtrec  
1-800-424-9300

#### SECTION II

##### Hazardous Ingredients

Aliphatic Polyisocyanate  
Hexamethylene Isocyanate  
HDI Based Polyisocyanate  
Dipropylene Glycol Monomechyl Ether

<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Proprietary (*)	N/E	N/E
822-060	N/E	.005 ppm
Proprietary (*)	N/E	N/E
034590-94-8	100ppm	100 ppm

(\*) Listed in TSCA Inventory

#### SECTION III

##### Physical Data

Boiling Point: N/E  
Vapor Pressure: N/E  
Vapor Density: N/E  
Specific Gravity: N/E  
Percent Volatiles: 15%

Solubility in Water: Soluble  
Evaporation Rate: N/E  
Appearance: Clear/Pale Yellow  
Odor: Slight

#### SECTION IV

##### Fire and Explosion Hazard Data

Flash Point: Greater than 250° F (SETA Flash c.c.)

Flammable Limits:

LEL: N/E

UEL: N/E

Special Fire Fighting Procedures: Fire-fighter should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers and structures exposed to fire.

Fire and Explosion Hazards: During fire, HDI vapors and other highly toxic gases may be generated.

Closed containers may explode when exposed to extreme heat or when contaminated with water.

Extinguishing Media: Dry chemical, carbon dioxide, foam water.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, oxides of nitrogen traces of HDI and HCN.

Fire and Explosion Hazards: During fire, HDI vapors and other highly toxic gases may be generated.

Closed containers may expand when exposed to extreme heat or when contaminated with water.

#### SECTION V

##### Reactivity Data

Stability: Stable

Hazardous Polymerization: May occur; contact with moisture or other materials which react with isocyanates or temperatures over 400°F may cause polymerization.

## SECTION VI

### **Health Hazard Data**

Primary Route of Entry: Inhalation, skin contact, eye contact

Eye Contact: May cause tearing, reddening and swelling accompanied by a stinging sensation.

Skin Contact: May cause irritation, reddening, swelling, rash, scaling or blistering.

Inhalation: Vapors or mist above the TLV can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort and reduced lung function. Persons with a pre-existing non-specific bronchial hyperactivity can respond to concentrations below the TLV with similar symptoms or an asthma attack.

Exposure well above the TLV may lead to bronchitis, bronchial spasm and pulmonary edema.

Ingestion: No adverse effects found.

Chronic Overexposure: Can lead to sensitization (chemical asthma). Symptoms would include chest tightness, wheezing, cough, shortness of breath or asthmatic attack which could be immediate or delayed up to several hours after exposure. Chronic overexposure has been reported to cause lung damage which may be permanent.

## SECTION VII

### **First Aid**

Eyes: Flush with clean water for at least 15 minutes while lifting eyelids. Call physician immediately.

Skin: Remove contaminated clothing immediately. Wash affected areas thoroughly with soap (green tincture soap is recommended) and water. For severe exposures, get under safety shower after removing clothing. Get medical attention.

Ingestion: Do not induce vomiting. Give 1 or 2 cups of milk or water to drink. Consult physician.

Inhalation: Move to fresh air. Administer oxygen or artificial respiration as needed. Obtain medical attention.

## SECTION VIII

### **Special Protection Information**

Respiratory Protection: A respirator that is approved for use in isocyanate containing environments (air purifying or fresh air supplied) is necessary for spray applications or other situations such as high temperature use which may produce volatilization.

Ventilation: General dilution ventilation that maintains vapor levels below the appropriate exposure limit is recommended.

Eye Protection: Safety glasses or goggles are recommended.

Skin Protection: Impermeable gloves are recommended.

## SECTION IX

### **Spill or Leak Procedures**

Steps to be taken if material is released or spilled: Wear protective equipment to prevent exposure. Collect spill with absorbent material. Flush area with a 5% TSP/water solution.

Waste Disposal Method: Dispose of in compliance with federal, state or local government regulations.

## SECTION X

### **Shipping Data**

D.O.T. Shipping Name: Epoxy Paint

Technical Shipping Name: Aliphatic Polyisocyanate

D.O.T. Hazard Class: Not Regulated

UN/NA Number: N/A

Reportable Quantity: None

D.O.T. Labels Required: None

Freight Class: 55