

SAFETY DATA SHEET

1.0 IDENTIFICATION

- 1.1 **GHS product identifier:** Solvent-based Polyurethane 500, Part A
- 1.2 **Other means of identification:** Polyol Resin
- 1.3 **Recommended use of the chemical and restrictions on use:** N/A
- 1.4 **Supplier's details:** DIRECT COLORS, INC.
430 EAST 10TH STREET
SHAWNEE, OK 74801
INFORMATION PHONE NUMBER: 405-275-6657
- 1.5 **Emergency phone number:** 1-800-262-8200

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Flammable Liquid 3, Skin Corrosion/Irritation 2, Eye Damage/Irritation 2B, Acute Toxicity – Oral 4, Acute Toxicity – Inhalation 4

2.2 GHS label elements:



Signal Word: Warning

Hazard Statement: Flammable liquid and vapor

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection.

Response: If on skin (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: use carbon dioxide, foam, dry chemical or water fog to extinguish fire.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Warning

Hazard Statement: Causes skin irritation

Prevention: Wash hands thoroughly after handling. Wear protective gloves.

Response: If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse.

Signal Word: Warning

Hazard Statement: Causes eye irritation

Prevention: Flush eyes thoroughly after eye contact.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.



Signal Word: Warning

Hazard Statement: Harmful if swallowed

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Warning

Hazard Statement: Harmful if inhaled

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Response: If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

- 2.3 **Other hazards which do not result in classification:** Flammable Liquid

2.4 Hazards Material Information System (United States):

Health	2
Flammability	3
Physical Hazard	0

Hazard Codes: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3.0 COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Mixtures**

Chemical Identity	CAS No.	Concentration
t-Butyl Acetate	540-88-5	20-30%
Propylene Glycol Monomethyl Ether Acetate (PMA)	108-65-6	15-20%

4.0 FIRST-AID MEASURES**4.1 Description of necessary first-aid measures:**

Eye Contact: Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Obtain medical attention if irritation persists.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Call a physician if irritation persists. Wash clothing before reuse.

Inhalation: Remove victim to fresh air if effects occur. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

4.2 Most important symptoms/effects, acute and delayed:

Signs and Symptoms: Irritation as noted above.

Aggravated Medical Conditions: Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin and lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Other Health Effects: Based on animal studies, repeated exposure to components of this product may cause damage to respiratory systems. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

4.3 Indication of immediate medical attention and special treatment needed, if necessary: Contact a Poison Control Center for additional treatment information. Health studies have shown that many petroleum hydrocarbons pose potential human health risks, which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.**5.0 FIRE-FIGHTING MEASURES****5.1 Suitable extinguishing media:**

Use foam, dry chemical, water spray, or CO₂.

5.2 Specific hazards arising from the chemical:

Flash Point is 62°F. None known.

5.3 Special protective actions for fire-fighters:

Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, irritating, toxic gases are present from thermal decomposition and combustion. Use water spray to cool fire-exposed surfaces and to protect personnel. Try to cover liquid spills with foam. Closed containers may explode when exposed to extreme heat. Solvent vapors are heavier than air and may travel a considerable distance where they may linger and/or find an ignition source and flash back.

6.0 ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:**

Evacuate nonessential personnel. Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.

6.2 Methods and materials for containment and clean up:

Contain spill if possible. Prevent entry into sewers and waterways. Cover spill with sawdust, vermiculite, Fuller's earth, or other absorbent material. Collect material in open containers. Remove containers to a safe place and cover. Wash down spill area with water. Dispose of in accordance with federal, state, and local regulations.

7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling:

Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.

7.2 Conditions for safe storage, including any incompatibilities:

Material is hygroscopic. Keep container tightly closed when not in use to prevent contamination with foreign materials and moisture. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk storage under nitrogen blanket. Store in a cool (between 32 and 122°F), dry place with adequate ventilation. Keep away from open flames and high temperatures.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	CAS No.	Percent	Exposure Limits	Source
t-Butyl Acetate	540-88-5	20-30%	200 ppm, PEL/TWA	OSHA
Propylene Glycol Monomethyl Ether Acetate (PMA)	108-65-6	15-20%	Not established	

8.2 Appropriate engineering controls: N/A

8.3 Individual protection measures, such as personal protective equipment:

Respiratory Protection: Provide adequate ventilation. Avoid breathing of vapors or mists. Airborne concentrations should be kept to lowest levels possible. When exposures are not adequately controlled, use a respirator approved for use in organic solvent environments. Selection of air purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Protective Clothing: Contact Lenses should not be worn. Precautions should be taken so that persons handling this product do not breathe the vapors or have it contact the eyes or skin. In spray operations, protection must be afforded against exposure to both vapor and spray mist. Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates are required. If skin creams are used, keep the area protected only by the cream to a minimum. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Appearance (physical state, color, etc.):** Viscous liquid, Clear or pigmented

9.2 **Odor:** strong solvent odor.

9.3 **Odor threshold:** N/A

9.4 **pH:** N/A

9.5 **Melting point/freezing point:** N/A

9.6 **Initial boiling point and boiling range:** Not established

9.7 **Flash Point:** 62°F

9.8 **Evaporation rate:** 1 (for solvent)

9.9 **Flammability (solid, gas):** N/A

9.10 **Upper/lower flammability or explosive limits:** N/A

9.11 **Vapor pressure:** 3.7 mm Hg (PMA) @ 20° C

9.12 **Vapor Density:** > 1

9.13 **Relative density(Specific Gravity):** 1.05

9.14 **Solubility(ies):** Insoluble

9.15 **Partition coefficient; n-octanol/water:** N/A

9.16 **Auto-ignition temperature:** N/A

9.17 **Decomposition temperature:** N/A

9.18 **Viscosity:** N/A

10.0 STABILITY AND REACTIVITY

10.1 **Reactivity:** N/A

10.2 **Chemical stability:** Stable under normal conditions.

10.3 **Possibility of hazardous reactions:** Will not occur.

- 10.4 Conditions to avoid:** Avoid oxidizers. Trimethylol propane is used in the manufacture of this resin; therefore, it should not be combined with phosphorus containing materials because highly toxic fumes may be emitted in a fire situation.
- 10.5 Incompatible materials:** N/A
- 10.6 Hazardous decomposition products:** By heat and fire: CO and CO₂.

11.0 TOXICOLOGICAL INFORMATION

- 11.1 Likely routes of exposure:** N/A
- 11.2 Symptoms related to the physical, chemical and toxicological characteristics:** N/A
- 11.3 Delayed and immediate effects and also chronic effects from short and long term exposure:**
Eye Contact: Liquid, aerosols, or vapors are severely irritating and can cause pain, tearing, reddening, and swelling. If left untreated, corneal damage can occur and injury is slow to heal. However, damage is usually reversible.
Skin Contact: Repeated or prolonged skin contact with the solvent can result in dry, defatted, and cracked skin causing increased susceptibility to infection. In addition, irritation (i.e., redness and swelling) that may develop into dermatitis may occur from skin contact. Solvents can penetrate the skin and may cause effects similar to those identified under inhalation symptoms.
Inhalation: Solvent vapors are irritating to the eyes, nose, and throat. Symptoms of irritation may include: red, itchy eyes, dryness of the throat, and a feeling of tightness in the chest. Other possible symptoms of overexposure include: headache, dizziness, nausea, narcosis, fatigue, and loss of appetite. Persons exposed to 200 ppm of xylene experienced eye, nose and throat irritation. Concentrations of 10,000 ppm of xylene can be immediately dangerous to life and health. Chronic exposure to organic solvents has been associated with various neurotoxic effects including permanent brain and nervous system damage. Symptoms include loss of memory, loss of intellectual ability, and loss of coordination.
Ingestion: Can 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.
- 11.4 Numerical measures of toxicity:**

Ingredient Name	CAS No.	%	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
t-Butyl Acetate	540-88-5	20-30%	4.5 g/kg (rats)	Moderate irritant (rabbit)	4200 ppm (rat)
Propylene Glycol Monomethyl Ether Acetate (PMA)	108-65-6	15-20%	> 8.5 g/kg (rats)	5 g/kg (rabbit)	4350 ppm (rat)

12.0 ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity:** N/A
- 12.2 Persistence and degradability:** N/A
- 12.3 Bioaccumulative potential:** N/A
- 12.4 Mobility in soil:** N/A
- 12.5 Other adverse effects:** N/A

13.0 DISPOSAL CONSIDERATIONS

- 13.1 Disposal methods:** Dispose of in accordance with federal, state, and local regulations.

14.0 TRANSPORT INFORMATION

- 14.1 UN number:** UN 1866
- 14.2 UN proper shipping name:** Resin Solution, Flammable, 3, PG II, UN 1866
- 14.3 Transport hazard class(es):** 3
- 14.4 Packing group, if applicable:** II
- 14.5 Environmental hazards:** N/A
- 14.6 Transport in bulk:** N/A
- 14.7 Special precautions for user:** N/A

15.0 REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations:**
 Not meant to be all-inclusive. Selected regulations presented.
A. SARA Title III Section 311/312 hazards: Immediate health hazard, delayed health hazard, fire hazard

B. TSCA Status: Listed on TSCA Inventory

C. OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; NJ2 = New Jersey Other; PA = Pennsylvania Haz. Subst. List; PA2 = Pennsylvania Non-hazardous present at 3% or Greater; RI = Rhode Island Haz. Subst. List.

16.0 OTHER INFORMATION

16.1 Date of Preparation: 6/1/2015

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.