

# TUFFLEX POLYMERS

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCTS AND COMPANY IDENTIFICATION

**Product Name:** COLORCOAT AR (250 VOC)

**Product Use:** Aromatic Polyurethane Top Coat

#### Manufacturer/Supplier

TUFFLEX POLYMERS

10880 Poplar Avenue

Fontana, CA 92337

Web Address: [www.tufflexpolymers.com](http://www.tufflexpolymers.com)

Fax Number: (909) 823-6309

#### Medical Emergency:

CHEMTREC (USA): (800) 424-9300

CHEMTREC (International): (703) 527-3887

MSDS Assistance: (909) 349-2016

Technical Assistance: (909) 349-2016

Customer Service: (909) 349-2016

### 2. COMPONENT INFORMATION

OCCUPATIONAL EXPOSURE LIMITS					
Hazardous Components	CAS No.	OSHA PEL	ACGIH TLV	MFG TLV	Vapor Pressure mm Hg @ TEMP
Residual Toluene Diisocyanate*	26471-62-5	.02 ppm (STEL-.02 ppm)	.005 ppm		0.025 @ 25 °C (77 °F)
Aromatic Hydrocarbon Solvent	64742-95-6	100 ppm	100 ppm		4.8 @ 38°C (100°F)
Urethane Prepolymer		N/E	N/E		
Crystalline Silica (Quartz)*	14808-60-7	0.05 mg/m3	0.05 mg/m3		
Titanium Dioxide	13463-67-7	.10 mg/m3	.10 mg/m3		
Aliphatic hydrocarbon solvent	8052-41-3	100 PPM	100 PPM		2.000 @ 68 °F

\*Indicates toxic chemicals subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.  
Information concerning non-hazardous ingredients is considered a trade secret.

### 3. HAZARDS IDENTIFICATION

#### Emergency and Hazards Overview:

Combustible, viscous pigmented liquid with a solvent odor. In confined spaces or areas with inadequate ventilation or exhaust, solvent vapors may accumulate unnoticed. Vapors are heavier than air and may travel to distant sources of ignition and flash back. Harmful if swallowed or inhaled. Overexposure to vapors may cause dizziness, headache, central nervous depression and permanent injury. The product contains small amounts of isocyanate, which can cause allergic reaction and irritation of nose, throat and lungs.

#### Ratings

Health 2 Flammability 2 Reactivity 1

**Primary Route of Exposure:** Skin x Inhalation x Eye x Ingestion x

#### Health Effect Information

**Eye Contact:** May cause eye irritation if wiped or rubbed into eyes.

**Skin Contact:** May cause skin irritation if wiped or left on the skin

**Inhalation:** May cause irritation of respiratory tract which may result in sinusitis, bronchitis, or asthma. Breathing vapors may cause central nervous system depression.

**Ingestion:** Moderately toxic. Ingestion may cause symptoms similar to those of inhalation.

**Medical Conditions Aggravated by Exposure:** Prolonged exposure to solvents may aggravate allergic reactions to nose, throat and lungs.

### 4. FIRST AID INFORMATION

**Eye Contact:** Immediately flush with plenty of water for at least 15 minutes.

**Skin Contact:** Dry skin with paper towel or similar material. Wash skin thoroughly with soap and water. Immediately remove contaminated clothing. Wash clothing before use.

**Inhalation:** Move the exposed person to fresh air at once. Get medical attention if any discomfort continues. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. Get medical attention.

**Ingestion:** If swallowed contact a physician immediately. Do not induce vomiting. Decision to induce vomiting should only be made by a physician. Never give anything by mouth to an unconscious person.

**Notes to Physician:** This product contains aromatic and aliphatic hydrocarbon solvents and toluene diisocyanate.

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## 5. FIRE AND EXPLOSION INFORMATION

### Flammable Properties

Flash Point: 110°F Test Method:TCC

Flame extension: NA Test Method: NA

### Flammable Limits in Air

Upper Percent: 7

Lower Percent: 1

Autoignition Temperature: NA Test Method: NA

**NEPA Classification:** H 2 F 2 R 1

**Extinguishing Media:** CO<sub>2</sub>, foam or dry chemicals.

### Fire Fighting Measures

**Special Fire Fighting Procedures and Equipment:** Use water spray only to cool containers. Do not put water on leaked material. Wear NIOSH/OSHA approved, self-contained breathing apparatus and full protective gear.

**Unusual Fire and Explosion Conditions:** Vapors may be ignited by heat or sparks. Heat-exposed containers may burst. Material may collect static charges which can cause an incendiary electrical discharge. Empty container contains product residues. Do not pressurize, cut, weld, drill, grind or expose containers to heat flame, sparks, static electricity or other sources of ignition. They may explode and cause injury or death.

**Hazardous Combustion By-Products:** CO, CO<sub>2</sub>, Nox, HCN, unburned hydrocarbons.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personnel Safeguards:** Immediately evacuate all non-essential personnel to safe places. Emergency responders should wear proper protective gears before entering the affected area. Observe all precautions noted above.

**Regulatory Notifications:** Waste of this product is defined as hazardous according to U.S. EPA. Spill reporting requirements and reportable quantities vary by region. Consult all applicable state and local regulations. For Canada, observe all precautions noted above.

**Containment and Clean up:** Remove all sources of ignition. Avoid sparks, flames, heat and smoking. Ventilate. Stop leak if possible without risk. Prevent liquids from entering sewers, drains or waterways by diking with sand or earth. Absorb with vermiculite or other absorbent material, then flush area with water. Put in open drums. Treat with water containing 4% ammonia.

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## 7. HANDLING AND STORAGE INFORMATION

**Handling:** Eliminate all ignition sources. Provide good ventilation. Avoid prolonged contact with the skin. Use solvent resistant gloves. Avoid rubbing eyes while handling. Respiratory caution to be taken if the cured product is ground or sanded as this may generate hazardous dusts.

**Storage:** Store in cool, dry, ventilated space away from direct sunlight. Keep away from heat, sparks, open flames, electrical equipment, welding torches, pilot lights, etc. Store at 10-30° C

### Empty Container Warnings

**Drums:** Do not reuse empty drums or containers. Do not cut, drill, grind or weld on or near the empty drums.

**Plastic:** Not applicable

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION INFORMATION

### Exposure Limits and Guidelines

Component	CAS No.	Exposure Limit
Quartz (respirable)	14808-60-7	0.05 mg/m <sup>3</sup> TWA, NIOSH
Toluene diisocyanate	26471-62-5	0.005ppm OSHA PEL
Aromatic hydrocarbon solvent	64742-95-6	100ppm ACGIH TWA
Aliphatic Hydrocarbon Solvent	8052-41-3	100ppm ACCIH TWA

### Personal Protective Equipment

**Eye/Face Protection:** Wear safety goggles

**Skin Protection:** Use solvent resistant gloves.

**Respiratory Protection:** When using spray application, use MSHA/NIOSH approved positive pressure supplied air respirator with a full-face piece during application. After application use CCR (Chemical Cartridge Respirator).

**Personal Hygiene:** Avoid rubbing eyes during handling. Use good personal hygiene practices to avoid incidental ingestion.

### Engineering Controls/Work Practices

**Ventilation:** Provide local exhaust or area ventilation to maintain concentration of vapors below TLV

Use explosion proof ventilation equipment. Take care not to draw vapors into non-explosion proof or spark generating equipment.

**Other:** Source of clean water should be available in the work area for flushing eyes and skin. Wash thoroughly with soap and water after use and before eating, smoking and using toilet.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b> Pigmented viscous liquid	<b>Vapor Pressure:</b> 3.0 mm Hg@ 20 °C
<b>Odor:</b> Typical solvent odor	
<b>Physical state:</b> Viscous liquid	<b>Vapor Density (air=1):</b> > air
<b>PH:</b> Not applicable	<b>Percent Volatile by Volume:</b> 14-24
<b>DOT Corrosively:</b> Not applicable	<b>Volatile Organic Content:</b> 250 g/liter
<b>Boiling Point:</b> 320 to 486 F	<b>Molecular Weight:</b> NA
<b>Melting Point:</b> NA	<b>Average Carbon Number:</b> NA
<b>Specific Gravity:</b> 1.2	<b>Viscosity @ 100F:</b> NA
<b>Pour Point:</b> NA	<b>Viscosity @ 40C:</b> NA
<b>Solubility in Water:</b> Negligible	
<b>Octanol/Water Coefficient:</b> Log K = NA	

## 10. STABILITY AND REACTIVITY INFORMATION

**Chemical Stability:** Stable under normal conditions. Avoid heat, sparks, flames

**Conditions to Avoid:** Avoid contact with strong oxidizing materials and bases. Avoid contact with water.

**Incompatible Materials to Avoid:** Strong oxidizers. Alkali metals.

## 11. TOXICOLOGICAL INFORMATION (will only print available data)

**Primary Eye Irritation:** Irritating

**Primary Skin Irritation:** Irritating

**Acute Dermal Toxicity:** NA

**Subacute Dermal Toxicity:** NA

**Dermal Sensitization:** NA

**Inhalation Toxicity:** NA

**Inhalation Sensitization:** NA

**Oral Toxicity:** Mutagenicity: NA

**Carcinogenicity:** Diisocyanates are suspect carcinogens. When ingested, TDI has caused cancer in certain animals. Crystalline silica is a carcinogen, listed as Human Carcinogen Category 1 in IARC. California Proposition 65 Chemicals and NIOSH also list crystalline silica as carcinogenic. Keep it below 0.05 mg/m<sup>3</sup>.

**Reproductive Toxicity:** NA

**Teratogenicity:** NA

**Immunotoxicity:** NA

**Neurotoxicity:** NA

**Other:** NA

**No other toxicological information available**

## 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:** Not known.

**Terrestrial Toxicity:** Not known

**Chemical Fate and Transport:** Not known.

**No other ecological information available**

## 13. DISPOSAL INFORMATION

**Regulatory Information:** Consult all regulations (federal, state, provincial, local etc.) or a qualified waste disposal firm when characterizing waste for disposal.

**Waste Disposal Methods:** Mix the chemical with an inert material such as sand, vermiculite, etc. and place in a suitable container. Dispose of in accordance with Local Authority requirements.

## 14. TRANSPORTATION INFORMATION

**U.S. Department of Transportation (DOT)**

**Highway/Rail (Bulk):** Combustible liquid, NA1993

**Highway/Rail (Non-Bulk):** PGIII (contains aromatic and aliphatic hydrocarbon solvents), NA 1993

**The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping descriptions.**

**International Information**

**Vessel: IMDG Regulated:** Class 3.3 IMDG Not Regulated

**Air: ICAO Regulated:** Class 3 ICAO Not Regulated

**Other:** No other information available

## 15. REGULATORY INFORMATION

### Regulatory Lists

**U.S. TSCA Inventory:** All components of this material are on the US TSCA Inventory or exempt from listing on the TSCA Inventory.

### SARA 311/312 Categories

**Acute:** Yes    **Chronic:** Yes    **Fire:** Yes    **Pressure:** Yes    **Reactive:** Yes

**Sara Section 313:** This product contains the following Sara, Title III, Section 313 Chemicals:

Chemical	CAS Number
Toluene diisocyanate	26471-62-5
Quartz	14808-60-7

### Regulatory Lists Searched

### Health & Safety:

**Environmental:** NA

**International:** NA

**State:** FL, MA, MN, PA, RI

**National Inventories:** NA

**California Proposition 65 Information: Warning!** This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Chemical	CAS Number
Toluene diisocyanate	26471-62-5
Quartz	14808-60-7

### Canadian WHMIS Classification

**Class:** B

**Division:** 3

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.

**Other Regulations:** No other information available

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## 16. OTHER INFORMATION

### Health and Environmental Label Language

All ingredients contained in this product are included on the US EPA Toxic Substances Control Act (TSCA) inventory or exempt from listing on the TSCA inventory. All ingredients contained in this product comply with the requirements of the Canadian Environmental Protection Act (CEPA) and are listed on the Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL)

HMIS ratings – Health: 2      Flammability: 2      Reactivity: 1      Personal Protection: G

**DISCLAIMER:** The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. This data and information is furnished upon the condition that the person receiving it shall make his own determination of the conditions for safe use of this product.

Legend: N.A. – Not Applicable, N.E. – Not Established, N.D. – Not Determined

### MSDS Revisions

**Previous Version Date:** 06/30/06

**Revision Date:** 01/03/11