

# MATERIAL SAFETY DATA SHEET

TCR MSDS-012

Issue 2

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<b>TCR COMPOSITES</b> 219 North 530 West Ogden, Utah 84404	<b>Emergency Phone No.</b> (801) 622-3800 <b>Product Information</b> (800) 827-3746
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## Section 1.

### CHEMICAL PRODUCT IDENTIFICATION

**NAME:** TF7035 Film Adhesive / Fabric Carrier

**CHEMICAL FAMILY:** Modified Epoxy Resin System

## Section 2.

### COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	CAS #	Percent	PEL (TWA)	TLV
Epoxy Resins	25068-38-6; 25036-25-3; 68891-50-9; 101- 90-6; 68989-76-4; 9010-81-5	60-95%*	NE	NE
3-(3,4-Dichlorophenyl)-1,1-dimethyl-Urea	330-54-1	1-5%*	NE	10 mg/cuM (as dust)
Cyanoguanadine	461-58-5	3-7%*	NE	10 mg/cuM (as dust)
Fabric Carrier	**	40-65%	NE	10 mg/cuM

NE: Not established  
\* Percentage of adhesive components  
\*\* Fabric Carrier is a Polyester or Glass carrier

## Section 3.

### HAZARDS IDENTIFICATION

**Exposure Limits:** A Threshold Limit Value (TLV) or Permissible Exposure Limit (PEL) is not established for this formulation.

**Effects of Exposure:** The adhesive film is a low exposure risk under normal operating conditions. Exposed persons (from **inhalation**) may become sensitized, inducing an allergic reaction. May cause mild irritation to the **eyes** and **skin**. May sensitize individuals, causing allergic symptoms. Effects of ingestion have not been determined.

Once the product has been cured, if disturbed or abraded, dusting and exposure may occur. In this occurrence, appropriate respiratory protection should be worn.

Section 4.

**FIRST AID MEASURES**

**Inhalation:** If any adverse symptoms appear, move person to fresh air. If necessary administer artificial respiration or oxygen and contact a physician.

**Eyes:** Flush eyes immediately with water for at least 15 minutes. Contact a physician.

**Skin:** Wash skin with soap and water. Remove contaminated clothing and wash before reuse. Contact a physician if symptoms develop/persist.

**Ingestion:** If ingested and conscious, give large quantities of water or milk and induce vomiting. Contact a physician.

Section 5.

**FIREFIGHTING MEASURES**

**SPECIAL FIRE FIGHTING PROCEDURES:** Protective clothing and self-contained breathing apparatus should always be used when fighting chemical fires.

**EXTINGUISHING MEDIA:** CO<sub>2</sub>, dry chemicals, foam, water spray.

**UNUSUAL FIRE AND EXPLOSIONS HAZARDS:** CO<sub>2</sub>, CO, Aldehydes, Nitrogen Oxides, Trace HCl, and other toxic products may be released during fire.

Section 6.

**ACCIDENTAL RELEASE MEASURES**

**Precautions if Container is Damaged:** Rolls of adhesive film material should be handled with impervious gloves if packaging is damaged.

Section 7.

**HANDLING AND STORAGE**

Store the adhesive film in a dry location at or below 40°F, until ready to use. Avoid prolonged or repeated physical contact.

Section 8.

**EXPOSURE CONTROLS – PERSONAL PROTECTION**

**Ventilation:** Provide sufficient mechanical (general and/or local exhaust) ventilation to limit vapor inhalation.

**Respiratory Protection:** An organic vapor respirator may be necessary in the absence of adequate ventilation. Engineering controls should be implemented to reduce exposure.

**Protective Gloves:** Impervious gloves are recommended for handling the product.

**Eye Protection:** Safety glasses should be worn for all industrial operations.

**Personal Protective Clothing:** Personal protective clothing (i.e., smocks, coveralls, etc.) should be worn. **NOTE:** Protective clothing should be laundered separately from street clothes.

**Other:** It is recommended to provide eye wash bath and safety shower near the work area.

Section 9. **PHYSICAL AND CHEMICAL PROPERTIES**

<b>WEIGHT:</b>	0.060 lbs/ft <sup>2</sup>
<b>SOLUBILITY IN WATER:</b>	Insoluble
<b>VAPOR PRESSURE:</b>	ca. 1 mm Hg @ 180°C
<b>EVAPORATION RATE:</b>	N/A
<b>MELTING POINT:</b>	N/A
<b>BOILING POINT:</b>	>200°C
<b>APPEARANCE AND COLOR:</b>	The material is cream colored and slightly tacking.
<b>DETECTION METHODS:</b>	None
<b>pH:</b>	N/A
<b>FLASHPOINT:</b>	>250°C
<b>ODOR:</b>	Essentially Odorless
<b>PERCENT VOLATILE:</b>	0.3%, max

Section 10. **STABILITY AND REACTIVITY**

**STABILITY:** Stable at temperatures below 40°F, thermosets at elevated temperatures.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Incompatible with bases, strong oxidizers, acids, amines, and excessive heat.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Incomplete burning can produce carbon monoxide, carbon dioxide, oxides of nitrogen, and other harmful products.

**HAZARDOUS POLYMERIZATION:** Will occur slowly with no hazard at room temperature.

**OTHER HAZARDS:** Not known.

Section 11. **TOXICOLOGICAL INFORMATION**

**ACUTE EFFECTS:** May cause skin and eye irritation. May cause respiratory tract sensitization and/or dermatitis.

**CHRONIC EFFECTS:** May induce asthmatic or allergic reaction from prior exposure sensitization.

**TARGET ORGAN(S):** Not Known

**ANIMAL TOXICITY:**

Oral, LD50 (ingestion)	>3400 mg/kg (rat)
Dermal, LD50 (skin contact)	>6000 mg/kg (rabbit)
Inhalation, LC50	No deaths in saturated air for 8 hr
Skin effects	Moderate Irritation
Eye effects	Slight Irritation

Section 12. **ECOLOGICAL INFORMATION**

Data not yet available.

Section 13. **DISPOSAL CONSIDERATIONS**

Waste material may generally be disposed of in a designated landfill unless directed otherwise by local or national regulations. TCR Prepreg does not come under the classification as a hazardous waste in accordance with US Resource Conservation and Recovery Act (RCRA) per 40 CFR 261. If under local or national regulations TCR Prepregs are defined as hazardous waste, they may be disposed of by incineration in an enclosed controlled facility to prevent generation of airborne fibers.

Section 14. **TRANSPORTATION INFORMATION**

**TCR™ Adhesive Films** do not meet any of the DOT definitions of Classes 1-9, ORM-D and elevated temperature materials. Therefore, this material is not regulated by the Hazardous Materials regulations of the United States Department of Transportation.

Section 15. **REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA)** - All components of this product are registered under the regulations of the Toxic Substance Control Act. Any new chemicals that may form during the manufacture of this product are exempt from Inventory reporting under 40 CFR 720.30(h) as they are incorporated into an article.

**SARA TITLE III** - To the best of our knowledge, this product contains no toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

Section 16. **OTHER INFORMATION**

For industrial use only. To the best of our knowledge, the information contained herein is correct. All chemicals may present unknown health hazards and must be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of the suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely.

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