

SAFETY DATA SHEET

(91/155/EEC)

TCR MSDS-003

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Issue 3

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Section 1.

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

TCR COMPOSITES 219 North 530 West Ogden, Utah 84404	Emergency Phone No. (801) 622-3800 Product Information (800) 827-3746
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NAME: TCR™ Prepregs

DESCRIPTION: Fiber reinforcement (carbon, glass, aramid, etc.) coated with a partially reacted epoxy resin. Product forms include tow, roving, woven and stitched broadgoods, mat, braid and unidirectional tape.

USE: TCR™ Prepregs are used as basic raw materials for the fabrication of composite parts.

Section 2.

COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	EINECS #	CAS #	Percent (wt/wt)	R- Phrases	S-Phrases	Symbols
TCR™ Resin	†	†	15-50	R36/38, R41, R42/43	S23 S24 S25	 Xn
Reinforcement*	†	†	50-85	None	None	Not subject to classification

NE Not Established

†: TCR Composites, Inc. Proprietary

Xn: Harmful

*: Reinforcement materials include carbon, fiberglass, aramid, and other filament-base materials.

Section 3.

HAZARDS IDENTIFICATION

Exposure Limits: An exposure limit for this material has not been established. The chemical, physical and toxicological properties have not been thoroughly investigated. There is minimal exposure risk with the prepreg material under normal handling and processing conditions.

Effects of Exposure:

Inhalation: May cause irritation to upper respiratory tract. May cause sensitization resulting in an allergic type reaction.

Eyes: Irritating to eyes by direct contact or vapor exposure.

Skin: May cause skin irritation. May cause skin sensitization resulting in allergic type symptoms/reaction.

Ingestion: Not known

Existing conditions which may be aggravated: Existing skin and respiratory conditions.

Section 4.

FIRST AID MEASURES

Inhalation: Move person to fresh air. Administer artificial respiration or oxygen if necessary. Contact physician.

Eyes: Immediately flush with water for 15 minutes while holding eyelids open. Contact physician.

Skin: Remove contaminated clothing and wash skin with soap and water. Contact physician.

Ingestion: Not expected to be an ingestion hazard.

Section 5.

FIRE-FIGHTING MEASURES

SPECIAL FIRE FIGHTING PROCEDURES: Wear protective clothing and personal protective equipment including self-contained breathing apparatus when fighting fires.

EXTINGUISHING MEDIA: Halogenated agents, carbon dioxide, foam, and steam or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Phosphine, carbon monoxide, carbon dioxide, nitrogen oxides and other toxic products may be released during a fire.

Section 6.

ACCIDENTAL RELEASE MEASURES

Precautions if Container is Damaged or Material Spilled: Wear protective clothing and impervious gloves when handling rolls of prepreg material. Provide adequate ventilation and wear recommended personal protective equipment. Collect and dispose of waste material according to European Union (EU) member state environmental regulations.

Section 7.

HANDLING AND STORAGE

Store at warehouse ambient temperature in sealed plastic wrap. Wear skin and eye protection when handling material. Provide adequate ventilation. Follow good personal hygiene practices such as washing hands and face after handling material.

Section 8.

EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION: Use general or local exhaust ventilation to minimize inhalation potential.

RESPIRATORY PROTECTION: Wear appropriate respiratory protection in the absence of adequate ventilation.

PROTECTIVE GLOVES: Wear gloves that are impermeable and resistant to this product. Gloves made of latex, polyvinyl chloride or similar materials are adequate under typical processing conditions.

EYE PROTECTION: Safety glasses with side shields should be worn for all industrial operations.

OTHER PROTECTIVE EQUIPMENT: Wear protective clothing as needed to avoid skin contact. Protective clothing should be laundered separately from personal clothing. Access to an eyewash or eyewash shower facility is recommended.

Section 9.

PHYSICAL AND CHEMICAL PROPERTIES

FORM: The prepreg material is slightly tacky with an appearance dominated by a reinforcement fiber.

COLOR: Reinforcement fiber may be black, yellow or cream color.

ODOUR: Not determined.

pH: Not determined.

OTHER DATA:

SPECIFIC GRAVITY (H₂O = 1): 1.3-2.2

SOLUBILITY IN WATER: Slight

VAPOR PRESSURE: Negligible

FLASHPOINT: N/A

Section 10.

STABILITY AND REACTIVITY

STABILITY: Stable at room temperature.

CONDITIONS TO AVOID: Uncontrolled heating above 74 °C.

MATERIALS TO AVOID: Incompatible with bases, strong oxidizers, acids, amines, mercaptans, and excessive heat.

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

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

OTHER HAZARDS: Not determined.

Section 11.

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: The acute toxicity of this product (mixture) has not been tested. See acute health effects in Section 2 and 3.

CHRONIC TOXICITY: The chronic toxicity of this product (mixture) has not been tested. See chronic health effects in Section 2 and 3.

TARGET ORGAN(s): Skin

Section 12.

ECOLOGICAL INFORMATION

The environmental risk of this material is limited by its form. Specific ecological data is not available. Do not discharge into drains or watercourses. Avoid ground contamination.

ECOTOXICITY: Not known

MOBILITY: Not known

PERSISTENCE AND DEGRADABILITY: Not known

BIOACCUMULATIVE POTENTIAL: Not known

OTHER ADVERSE EFFECTS: Not known

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 materials listed as a hazardous "Special" waste in accordance with EU special waste regulation 1966 No. 972 Schedule 2 Part 1. 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™ Prepreg does not meet any of the United States Department of Transportation (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 US DOT.

LAND TRANSPORT- *ADR/RID (cross-border)*: Not applicable

MARITIME TRANSPORT- *IMDG*: Not applicable

AIR TRANSPORT- *ICAO-TI and IATA CLASS*: Not applicable

Section 15.

REGULATORY INFORMATION**CODE LETTER AND HAZARD DESIGNATION OF PRODUCT:**

RISK (R)- PHRASES: R36/38- Irritating to eyes and skin.
R41- Risk of serious damage to eyes.
R42/43- May cause sensitization by inhalation and skin contact.

SAFETY (S)- PHRASES: S23- Do not breath vapor.
S24- Avoid contact with skin.
S25- Avoid contact with eyes.

Section 16.

OTHER INFORMATION

For Industrial use. 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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