



Section 1: Product and Company Identification

1.1 Product Identifier:

TCR™ Prepregs containing TCR UF3360 Resin

1.2 Relevant identified uses and uses advised against:

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

1.3 Details of the supplier of the safety data sheet:

TCR Composites
219 North 530 West
Ogden, UT 84404, USA
800-827-3746

1.4 Emergency telephone number:

801-622-3800 (USA)
Available 24 hours? Yes No
Only available during office hours 0730-1600 (GMT-7)

Section 2: Hazards Identification

2.1 Classification of the mixture or substance:

- Skin irritant 2, H315
- Skin sensitivity 1, H317
- Serious eye damage 1, H318
- Respiratory sensitization 1, H334
- Germ Cell Mutagen 2, H341

2.2 Label elements:

Hazard Pictogram



Signal Word

: **Danger**

Hazard Statements

- : H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H341 - Suspected of causing genetic defects

Precautionary Statements

- : P280-Wear protective gloves/protective clothing/eye protection/face protection
- P302+P352- IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313- If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313- If eye irritation persists: Get medical advice/attention.
- P362- Take off contaminated clothing and wash it before reuse.

Section 3: Composition/information on ingredients

| Ingredient Name | CAS No. | Weight % |
|----------------------------------|---------|----------|
| TCR UF3360 Resin ¹ | * | ~20-45 |
| Fiber Reinforcement ² | * | ~ 80-55 |

* Ingredients and associated CAS numbers are proprietary/trade secrets to TCR.
 1) The chemical composition is being withheld as trade secrets in accordance with 29 CFR 1910.1200(i) and 29 CFR 1910.1200 Appendix D. The chemical identities will be disclosed to health professionals in a medical emergency in accordance with 29 CFR 1910.1200 paragraph (i)(2). Non-emergency requests will be considered in accordance with 29 CFR 1910.1200 paragraph (i).
 2) Reinforcement can be carbon, aramid, glass, basalt fibers in the form of tow, roving, woven fabric, unidirectional tape or braid.

Section 4: First aid measures

4.1 Description of first aid measures:

Inhalation: Move person to fresh air.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. If skin irritation or rash occurs: seek medical advice/attention. Wash contaminated clothing before reuse.

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

Ingestion: Rinse mouth. Do not induce vomiting. Contact doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed:

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: May be harmful if swallowed. May cause nausea, vomiting and diarrhea.

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

4.3 Indication of any immediate medical attention and special treatment needed:

No additional information available.

Section 5: Fire-fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Halogenated agents, carbon dioxide, foam, and steam or water fog.

Unsuitable extinguishing media: None known

5.2 Special hazards:

Phosphine, carbon monoxide, carbon dioxide, nitrogen oxides and other toxic products may be released during a fire.

5.3 Special Protective Equipment for Fire fighters:

Wear protective clothing and personal protective equipment including self-contained breathing apparatus when fighting fires.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Use appropriate personal protection equipment (PPE).

6.2 Environmental precautions:

The environmental risk of this material is limited by its form. Do not discharge into drains or watercourses. Avoid release to environment.

6.3 Methods for containment and cleaning up:

For containment: Due to the form of the material is not necessary.

For clean up: Collect and dispose of waste material according to environmental regulations.

Section 7: Handling and storage

7.1 Precautions for safe handling:

Do not handle until all safety precautions have been read and understood. 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. Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any incompatibilities:

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: direct sunlight, heat sources. Keep containers closed when not in use.

Section 8: Exposure control/personal protection

8.1 Control parameters:

Occupational exposure limits: Not Available

Biological exposure limits: Not Available

8.2 Appropriate Engineering Controls: Use general or local exhaust ventilation to minimize inhalation potential.

8.3 Individual Protective Measures:

Protective Clothing: 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.

Eye/Face protection: Safety glasses with side shields should be worn for all industrial operations.

Skin protection: 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.

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

Section 9: Physical and chemical properties

- (a) **Appearance** (physical state, color etc.); Material is slightly tacky. Color is dominated by the reinforcement fiber.
- (b) **Odor**; No distinctive odor.
- (c) **Odor threshold**; Not Available
- (d) **pH**; Not Available
- (e) **Melting point/freezing point**; Not Available
- (f) **Initial boiling point and boiling range**; Not Available
- (g) **Flash point**; Not Available
- (h) **Evaporation rate**; Not Available
- (i) **Flammability (solid, gas)**; Not Available
- (j) **Upper/lower flammability or explosive limits**; Not Available
- (k) **Vapor pressure**; Not Available
- (l) **Vapor density**; Not Available
- (m) **Relative density**; Not Available
- (n) **Solubility(ies)**; Prepreg resin is soluble in Methyl Ethyl Ketone, Acetone, Chloroform
- (o) **Partition coefficient**: n-octanol/water; Not Available
- (p) **Auto-ignition temperature**; Not Available
- (q) **Viscosity**; Not Available

Section 10: Stability and reliability

10.1 Reactivity:

Stable at room temperature.

10.2 Chemical Stability:

Stable at room temperature.

10.3 Possibility of hazardous reactions:

Hazardous polymerization will not occur.

10.4 Conditions to avoid:

Uncontrolled heating above 74 °C. Direct sunlight.

10.5 Incompatible materials:

Incompatible with bases, strong oxidizers, acids, amines, mercaptans, and excessive heat.

10.6 Hazardous decomposition products:

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

Section 11: Toxicological information

11.1 Likely routes of exposure

Skin contact

11.2 Symptoms related to physical, chemical, and toxicological characteristics

Symptoms/injuries after inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/injuries after skin contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact: Causes eye irritation.

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause nausea, vomiting, and diarrhea.

11.3 Delayed/immediate/chronic effects from long term and short exposure

11.4 Numerical measures of toxicity

Acute toxicity: Not classified

Skin corrosion/irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific target organ toxicity (single exposure): No data available.

Specific target organ toxicity (repeated exposure): No data available.

Aspiration hazard: No data available

Section 12: Ecological information

12.1 Ecotoxicity:

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.

12.2 Persistence and degradability:

Not Available

12.3 Bio-accumulative potential:

Not Available

12.4 Mobility in soil:

Not Available

12.5 Other adverse effects:

Avoid release to the environment.

Section 13: Disposal considerations

13.1 Waste treatment methods:

Waste disposal recommendation: Waste material may generally be disposed of in a designated landfill unless directed otherwise by local or national regulations. 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.

Ecology – waste materials: Waste material may generally be disposed of in a designated landfill unless directed otherwise by local or national regulations.

Section 14: Transport information

14.1 Land transport (ADR/RID/GGVSE):

Not regulated

14.2 Sea transport (IMDG-Code/GGVSee):

Not regulated

14.3 Air transport (ICAO-IATA/DGR):

Not regulated

14.4 Special precautions for users:

None

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

US TSCA – All components listed

EU EINECS – All components listed

US TSCA 12(b) components: None

EPA SARA Title III Section 313 Components above 'de minimus level: None

Section 16: Other information

(i) 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 this product 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.

(ii) Revision date 5/22/2015; Replaces MSDS-001 dated 08/27/2013.