



Radiation Products Design, Inc.

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Material Safety Data Sheet
Ultra-High Molecular Weight Polyethylene
(UHMW)

MATERIAL SAFETY DATA SHEET

Date last revised 10-95 By M. Lykins

MSDS-01

I. General Information

Chemical Name & Synonyms Ultra-High Molecular Weight Polyethylene	Trade Name & Synonyms TIVAR 1000, TIVAR Recycled, TIVAR Uniblend
Chemical Family Linear High Density Polyethylene	Formula (ch ₂ -ch ₂) _n
Proper DOT Shipping Name N/A	DOT Hazard Classification N/A
Manufacturer Poly Hi Solidur Division of Menasha Corporation	Manufacturer's Phone Number (219) 479-4274
Manufacturer's Address 2710 American Way, Fort Wayne, IN 46809	Chemtrec Phone Number 1-800-424-9300

II. Ingredients

Principal Components	Percent	Threshold Limit Value (Units)
Polyethylene (9002-88-4)	>99%	10 mg/m ³ (total dust)

III. Physical Data

Boiling Point (Deg. F.) N/A	Specific Gravity (H₂O=1) .93 - .94
Vapor Pressure (mm Hg) N/A	Percent Volatile By Volume (%)
Vapor Density (Air=1) N/A	Evaporation Rate (Air =1) N/A
Solubility in Water Negligible	pH N/A
Appearance & Odor Waxy Solid with waxy odor.	

IV. Fire & Explosion Hazard Data

Flash Point (Test Method) 665 Deg. F.	Auto Ignition Temperature 665 Deg. F. (352 Deg. C.) ASTM-D-1929 Method B (Setchkin)	
Flammable Limits N/A	LEL N/A	UEL N/A
Extinguishing Media Water, Foam, Carbon Dioxide, Dry Chemical		
Special Fire Fighting Procedures Standard for Class A fire.		
Unusual Fire & Explosion Hazards Dust is flammable when finely divided (less than 200 mesh) and suspended in air.		

V. Health Hazard Data

Carcinogen - NTP Program
NO

Carcinogen - IARC Program
NO

Symptoms of Exposure
None Known

Medical Conditions Aggravated By Exposure

None known, however, seek medical attention if constant irritation occurs. If thermal decomposition occurs, upper respiratory, eye, nose, and throat irritation may result.

Primary Route(s) of Entry
Inhalation of particulates.

Emergency First Aid

Molten material. If molten material comes in contact with the skin, cool under running water. Do not attempt to remove the molten material from the skin. Get medical attention.

VI. Reactivity Data

STABILITY ___ Unstable
 ___ X ___ Stable

INCOMPATIBILITY

Hazardous ___ May Occur
Polymerization ___ X ___ Will Not Occur

Conditions To Avoid

None Known

Materials To Avoid

Strong oxidizing agents.

Conditions To Avoid

None Known

Hazardous Decomposition Products

Carbon Monoxide, Carbon Dioxide, selected Alkanes and Aldehydes including Acrolein and Formaldehyde.

VII. Environmental Protection Procedures

Spill Response

Sweep up for Disposal or reuse.

Waste Disposal Method

Incineration or landfill - dispose of in accordance with Federal, State and Local regulations.

VII. Special Protection Information

Eye Protection

Glasses with side shields.

Skin Protection

Respiratory Protection (Specific Type)

Recommended

NIOSH approved dust respirator recommended.

If material is being burned wear an organic respirator.

Other Protection

Gloves and protective garments when handling molten material.

Ventilation

Local ventilation in dusty

or if thermal

IX. Special Precautions

Hygienic Practices In Handling & Storage

Wash with soap and water.

Precautions For Repair & Maintenance Of Contaminated Equipment

Eliminate ignition sources.

Other Precautions

Store in a sprinkler protected warehouse. Since TIVAR is a polyethylene it will burn with a hot flame if ignited. Avoid contact with ignition sources such as open flames. Keep a fire extinguisher near if welding is done in the area of TIVAR. If a heat source is present, keep the area well ventilated.

N.A. = Not Applicable N.E. = Not Established

