

MATERIAL SAFETY DATA SHEET

I STRATA TECH INC
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INFO PHONE (515) 251-7770

PRODUCT: **ST-504 VARI-LOK**
FAMILY: Isocyanate Prepolymer
REV: May 19, 2014

II HAZARDOUS INGREDIENTS

	CAS	OSHA PEL	ACGIH TLV	CONCENTRATION
Diphenylmethane 4,4'-Diisocyanate (MDI)	101-68-8			< 5.0%
Higher Oligomers of MDI	9016-87-9			< 6.0%
Dimethyl Adipate	627-93-0			< 4.0%
Dimethyl Succinate	106-65-0			< 6.0%
Mixed Isomers				
2,4 Toluene Diisocyanate (TDI)	584-84-9			< 1%
2,6- Toluene Diisocyanate (TDI)	91-08-7			
OSHA: .	02 ppm Ceiling			

III PHYSICAL AND CHEMICAL CHARACTERISTICS

Physical State:	Liquid	Density:	9.163 lbs/gal
Boiling Point:	Not Determined	45 lbs net:	18.56 liters
Freezing Point:	Below 32°F (0°C) for MDI	8 lbs net:	3.43 liters
Vapor density:	8.5 (MDI) (Air=1)	Viscosity :	800-900 at 77°F (25°C)
Specific Gravity:	1.1 at 77°F (25°C)	Volatile %:	Negligible
Vapor Pressure:	< 1 x 10 ⁻⁵ mm Hg at 77°F (25°C) for MDI		
Appearance & Odor:	Brown liquid; sweet odor.		
Solubility in Water:	Soluble. Reacts with water to liberate CO ₂ gas.		

IV FIRE AND EXPLOSION HAZARD DATA

Flash Point:	>212°F (100°C)
Extinguishing Media:	Dry chemical, carbon dioxide, foam, water spray for large fires.
Fire Fighting:	Wear self-contained positive pressure breathing apparatus and full fire fighting clothing. Vapors & other irritating highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400°F, isocyanates can polymerize and decompose which can cause pressure build-up in closed containers. Explosive rupture is possible. Use cold water to cool fire-exposed containers.

V REACTIVITY DATA

Stability:	Stable under normal handling conditions.
Incompatibilities: Hazardous	Water, amines, strong bases, alcohols. Will corrode to copper alloys and aluminum.
Polymerization:	May occur; avoid temperature above 400°F (204°C), avoid contact with moisture or other materials which react with isocyanates.
Hazardous	
Decomposition:	By heat and fire: carbon monoxide, oxides of nitrogen, traces of HCN, MDI and TDI vapors or aerosols.

VI HEALTH HAZARD DATA *EFFECTS OF OVEREXPOSURE AND PRIMARY ROUTES OF ENTRY*

Eyes: Irritating causing tearing, reddening and swelling. If untreated, corneal damage can occur and injury is slow to heal.
Skin: May cause some irritation such as reddening, swelling, rash, scaling or blistering.
Ingestion: Can result in sore throat, abdominal pain, nausea, vomiting and diarrhea.
Inhalation: Burning in nose, throat and lungs causing breathing difficulty; possible asthma attack, bronchitis, bronchial spasm, pulmonary edema and chemical or hypersensitive pneumonitis.

VII EMERGENCY AND FIRST AID PROCEDURES

Eyes: Flush open eyes immediately with lukewarm water for 15 minutes; see Physician.
Skin: Remove contaminated clothing; wash thoroughly, wash with soap & water. Contact physician.
Ingestion: **Do not induce vomiting.** Give 2 cups of milk or water to drink. Contact Physician immediately.
Inhalation: Remove to fresh air. Give oxygen if breathing becomes difficult. See Physician.

VIII PRECAUTIONS FOR SAFE HANDLING AND USE

Spills: Evacuate and ventilate spill area; dike spill; blanket with protein foam; pumped into closed but not sealed containers; absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport outside and treat with large amounts of water, let stand uncovered for 48 hours; decontaminate floor with water.
Disposal: Incinerate or landfill waste in accordance with Local, State, and Federal regulations.
Handling: Sensitive to humidity; close container tightly after use. Do not reseal - can be contaminated by moisture. Avoid eye and skin contact. Wash thoroughly after handling. Remove contaminated clothing immediately and launder completely or discard.
Storage: Stored between 64°F and 86°F. Shelf life is 6 months. If exposed to high heat, 400°F (204°C) container may become pressurized and possibly rupture.

IX CONTROL MEASURES

General: No special control measures at ambient conditions where work area is adequately ventilated. When airborne concentrations exceed the Federal OSHA exposure standard (0.02 ppm TLV) wear MSHA/NIOSH approved respirator.
Ventilation: As required to maintain work area below TLV.
Respiratory: If ventilation is insufficient, wear breathing apparatus or vapor respirator.
Eyes: Liquid chemical goggles, vapor resistant goggles or full face shield as required.
Skin: Permeation resistant gloves and clean body-covering clothing.

X SHIPPING AND LABEL DATA

DOT Shipping Name: Plastic Material, Liquid, NOS Hazard Class: N/A
Labels / Placards: ST-504 not regulated as a USDOT hazardous material

IATA	<u>CARGO</u>	<u>PASSENGER</u>	<u>NFPA 704M RATINGS</u>	<u>HMIS RATINGS</u>	<u>CATEGORY</u>	<u>NFPA</u>	<u>HMIS</u>
UN #:	N/A	N/A	0= Insignificant	0= Minimal	Health	3	3
Limit:	N/A	N/A	1= Slight	1= Slight	Flammability:	1	1
Class:	N/A	N/A	2= Moderate	2= Moderate	Reactivity:	1	1
Instr:	N/A	N/A	3= High	3= Serious	Other:	-	-
			4= Extreme	4= Severe			