

MATERIAL SAFETY DATA SHEET

Trade name: VFI-1003 Single

CHEMICAL FAMILY: POLYURETHANE

TRANSPORTATION EMERGENCY ASSISTANCE / CALL CHEMTREC / 1 (800) 424 - 9300

HMIS HAZARD RATING

	POLY	ISO
H		*2
F		2
R		1

4=SEVERE HAZARD 3= SERIOUS HAZARD 2=MODERATE HAZARD 1=SLIGHT HAZARD 0=MINIMAL HAZARD

SECTION II (HAZARDOUS SUBSTANCES)

HAZARDOUS INGREDIENTS

SIDE	INGREDIENT	%BY WT	TLV	PEL	Vapor Pressure
ISO	4,4' Diphenylmethane diisocyanate* CAS# 101-68-8	10 - 13	0.02ppm	0.02ppm	0.0003mm HG
	2,4 Diphenylmethane diisocyanate CAS# 5873-54-1	1 - 3			
	Modified MDI CAS# not disclosed	19 - 25			
	Polymeric MDI CAS# 9016-87-9	5 - 8			
	Light Aromatic Solvent Blend	25 - 30			
POLY	N/A	N/A	N/A	N/A	N/A

* THIS CHEMICAL IS SUBJECT TO SARA TITLE III, SECTION 313 REPORTING.

SECTION III (PHYSICAL DATA)

BOILING POINT: >300 F

% VOLATILE BY WEIGHT: 27%

WEIGHT PER GALLON: (10.5 lb/gal)

Weight per gallon differs with color. (MIO red used as standard.)

EVAPORATION RATE: slower than BuAc

VAPOR DENSITY : 0.22 kPa @ 20 C

SECTION IV (FIRE & EXPLOSION HAZARD DATA)

FLASH POINT: >107 F

EXTINGUISHING MEDIA: Foam, CO2, dry chemical, or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters must wear self-contained breathing apparatus and full protective clothing to prevent contact with toxic and/or irritating fumes. Do not spray pool fires directly; a stream of water directed into hot, burning liquid can cause frothing.

UNUSUAL FIRE & EXPLOSION HAZARD: Contamination of "ISO" component with water will generate carbon dioxide gas with possible pressure build up in confined areas. Incomplete combustion may produce carbon monoxide. These products are non-flammable and will not explode from mechanical impact.

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SECTION V (HEALTH HAZARD DATA)

THRESHOLD LIMIT VALUE: (ISO: 0.02 ppm) (POLY: N/A)

EFFECTS OF OVEREXPOSURE: Skin contact may cause irritation. Eye contact causes irritation, redness, tearing and blurred vision.

EMERGENCY & FIRST AID: Eye contact: Flush with water for at least 15 minutes and call a physician as soon as possible. Skin contact: Wash with soap and water and remove contaminated clothing. Ingestion: See a physician immediately.

PRIMARY ROUTES OF ENTRY: Dermal most likely.

MEDICAL CONDITIONS PRONE TO: Repeated exposure can cause allergic reaction with development of occupational asthma. Long term repeated exposure to low vapor levels may cause chronically progressive pulmonary disease. Repeated skin contact can result in sensitization.

SECTION VI (REACTIVITY DATA)

STABILITY: Stable

CONDITIONS TO AVOID: Temperature extremes and water.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents, water, alcohols, amines and strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete burning may produce carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION: "ISO" component reacts slowly with water to produce carbon dioxide gas.

SECTION VII (SPILL OR LEAK PROCEDURES)

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In enclosed areas, cleanup personnel should wear self contained breathing apparatus. Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting. Do not heat or cut empty containers with electric or gas torch. "ISO" component must be neutralized with an equal volume of a 6% ammonia solution in water and allowed to react for 10 minutes. Collect into open containers and add more solution. Cover loosely to vent carbon dioxide gas generated.

WASTE DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

SECTION VIII (SPECIAL PROTECTION INFORMATION)

RESPIRATION PROTECTION: Use organic vapor cartridges with a mechanical filter to remove airborne particles Use self-contained breathing apparatus in enclosed areas

VENTILATION(Local Exhaust): Mechanical

PROTECTIVE GLOVES: Chemical resistant plastic or rubber gloves.

EYE PROTECTION: Safety goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Eye bath & safety shower should be available.

SECTION IX (SPECIAL PRECAUTIONS & TOXICOLOGICAL PROPERTIES)

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING & STORING: Keep containers closed and store in a cool dry place away from direct sunlight.

TOXICOLOGICAL PROPERTIES: The International Isocyanate Institute is currently sponsoring a lifetime study on polymeric MDI in rats for carcinogenicity. Monomeric MDI is positive for mutagenicity in the Ames assay. Oral LD50 (rats) is greater than 15800 mg/Kg. Dermal LD50 (rabbits) is greater than 7900 mg/Kg. Inhalation LC50 (rats - 2hr) is greater than 400 mg/M3 on dust of monomeric MDI. Harmful or fatal if swallowed. Vapor harmful. May cause skin or eye irritation.

KEEP OUT OF REACH OF CHILDREN!!

CORPORATE OFFICE: P.O. BOX 344 – BROOKFIELD, WI 53008 – (800) 307-9218 – 262 787-0400 – FAX (262) 787-0500

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