Innovating Science

MATERIAL SAFETY DATA SHEET

By Aldon Corporation
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"cutting edge science for the classroom"

3947.

MSDS No.: IS7018
Effective Date: June 6, 2005

SECTION I NAME

Product	Polyurethane Foam System
Chemical Synonyms	N/A
Formula	Mixture.
Unit Size	Set of 2 - (Part A)
C.A.S. No.	Mixture.

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 585-226-6177

NFPA: 3 (top) 1 (left) 1 (right)

HMIS *	
Health	3
Fire	1
Reactivity	1

HAZARD RATING

MINIMAL	SLIGHT	MODERATE	SERIOUS	SEVERE
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Isocyanic acid, polymethylenepolyphenylene ester: CAS No. 9016-87-9	55%	N/A
Methylenebisphenylene diisocyanate (MDI): CAS No. 101-68-8	45%	0.005 ppm; 0.051 mg/m^3
Diphenylmethane diisocyanate: CAS No. 26447-40-5	5%	0.005 ppm; 0.051 mg/m^3

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN AND EYES.

SECTION III PHYSICAL DATA

Melting Point (°F)	< 32°F (< 0°C) (for MDI)	Specific Gravity (H_2O = 1)	1.24 g/ml @ 77°F
Boiling Point (°F)	406°F (207.8°C)	Percent Volatile by Volume (%)	Negligible.
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (Ethyl Ether =1)	< 1
Vapor Density (Air=1)	8.5 (for MDI)		
Solubility in Water	Insoluble.		
Appearance & Odor	Brown viscous liquid.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

			Lower	Upper
Flash Point (Method Used)	390°F (198.9°C)	Flammable Limits in Air % by Volume N/A		
Extinguisher Media	Dry chemical, carbon dioxide, foam, or water fog.			

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NOISH/MSHA-approved self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. DO NOT GET WATER INSIDE CONTAINERS. Ventilate spill area. Eliminate all ignition sources.

UNUSUAL FIRE AND EXPLOSION HAZARDS

During a fire, irritating vapors and highly toxic gases or fumes may be generated by thermal decomposition or combustion. At temperatures greater than 400°F (204°C), components may polymerize and decompose which can cause pressure build-up in closed containers. Explosive rupture is possible.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

DD1020A

Threshold Limited Value: Methylenebisphenylene, Inhalation LC50 Rat: 178 mg/m^3; Oral LD50 Rat: 9200 mg kg - Isocyanic acid, Inhalation LC50 Rat: 490 mg/m^3/4H; Oral LD50 Rat: 49 gm/kg

Effects of Overexposure: Liquid or vapors may irritate the eyes. Contact with skin may cause sensitization. May cause respiratory sensitization and irritate respiratory tract with possible permanent decrease in lung function. Ingestion may result in burns to mouth, esophagus and damage to stomach. Exercise appropriate procedures to minimize potential hazards. Target organs: Respiratory system, eyes.

Emergency and First Aid Procedures: **INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		**Conditions to Avoid**: Excessive heat, temperatures, sparks and open flames.
	Stable	X	

Incompatibility (Materials to Avoid): Water, alcohols, amines, strong bases.

Hazardous Decomposition Products: Cyanides and ammonia may be formed.

Hazardous Polymerization

May Occur	Will Not Occur	Conditions to Avoid
X		Contact with moisture, other materials which react with isocyanates or temperatures above 400°F (204°C).

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Ventilate spill area. Eliminate all ignition sources. Absorb with an inert dry material and place in an appropriate container for proper disposal. Wash spill area thoroughly with soap and water.

Waste Disposal Method: Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.
Protective Gloves	Rubber		**Eye Protection**	Chemical safety goggles.

Other Protective Equipment: Lab coat, apron, eye wash station, proper gloves, ventilation hood and fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing: Store in a cool, dry place away from fire hazards. Wash thoroughly after handling.

Keep container tightly closed when not in use.

Other Precautions: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Avoid contact with skin, eyes and clothing. Do not breathe vapors. Use with adequate ventilation. Remove and wash contaminated clothing.

Revision No. 5	Date 06/06/05	Approved Michael Raszeja	Chemical Safety Coordinator MR