

Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: Polymeric MDI
Manufacturer: Elastochem Specialty Chemicals Inc.
37 Easton Road
Brantford, Ontario N3P 1J4
Phone (519) 754-1678 Fax (519) 754-4487

Supplied by: Elastochem Specialty Chemicals Inc.
Emergency Telephone #: Chemtrec Emergency Number: 800-424-9300
Intended use of Product: Component of a packaging foam System

Section 2: HAZARDOUS INGREDIENTS OF PRODUCT

Ingredient	% (w/W)	CAS #	Exposure Limit
Diphenylmethane diisocyanate (MDI)	1-5	026447-40-5	TWA 0.005PPM PEL 0.02PPM
Polymethylene polyphenyl isocyanate	40-55	009016-87-9	TWA 0.005 PPM PEL 0.02 PPM
4'4'-Diphenyl methane diisocyanate	30-45	101-68-8	TWA 0.005 PPM PEL 0.02 PPM

Section 3: PHYSICAL PROPERTIES OF PRODUCT

Odour: Slightly musty odour
Appearance: Brown liquid
Odour threshold: no data
Specific Gravity (H2O = 1): 1.2 @ 25°C
Freezing Point: <-10 °C
Viscosity: 250 cps @@ 25°C
Boiling Pt: 208°C
Vapor Pressure (mm Hg). . . .: 1 X 10⁻⁵ mm Hg@25°C
Percent Volatile by vol (%): Not applicable
Vapor Density (Air = 1). . . : 8.5 (MDI)
Evaporation Rate (BuAc = 1): Not available
Solubility in Water (%). . . : Not soluble, reacts slowly with water to liberate CO₂ gas

Section 4: FIRE AND REACTIVITY HAZARD OF PRODUCT

Flash Point (°C) : 199 °C
Flammable Limits LEL (%): Not available
Flammable Limits UEL (%): Not available

Extinguishing Media: Use large amounts of water spray, foam, dry chemical, or CO2. Water spray to cool fire-exposed containers not on open containers or burning materials.

Fire Fighting Procedures: Wear self-contained breathing apparatus. Cool exposed containers with water.

Explosion Data:

Sensitivity to mechanical impact: No

Sensitivity to static discharge: No

Stability: Stable at room temperature and normal processing conditions.

Hazardous Polymerization: Will not spontaneously occur under normal conditions. Avoid incompatible products below.

Incompatibility: Water, amines, strong bases, alcohols, and metal compounds.

Hazardous Decomposition products: Thermal decomposition may produce MDI vapour and mist, traces of hydrogen cyanide and oxides of nitrogen and carbon.

Section 5: HEALTH HAZARD INFORMATION

Routes of Exposure: Inhalation, skin contact, eye contact.

Acute Effects: Contact with eyes and skin may cause irritation.

Chronic Effects: Chronic exposure to MDI may cause respiratory sensitization in susceptible individuals.

LD50: oral-rat >10 000 mg/Kg

LD50: Dermal- rabbit >6 200 mg/Kg

Eyes: May cause slight eye irritation

Skin: Prolonged or repeated exposure may cause skin irritation

Ingestion: Toxicity is low for ingestion

Inhalation: Excessive exposure may cause irritation of the upper respiratory tract and lungs.

Carcinogenicity: Not listed by IARC, NTP or regulated as a carcinogen by OSHA.

Teratogenicity/Reproductive effects: Not available

Mutagenicity: Not available

Section 6: Preventative Measures

Personal Protection:

Respiratory Protection: NIOSH approved atmosphere supplying respirator in positive pressure mode if concentrations exceed the applicable exposure limits as indicated in section 2.

Skin Protection: Wear gloves, boots and long sleeves which are impervious to the material to prevent skin contact.

Eye protection: Chemical safety goggles or glasses with side shields.

Ventilation: Adequate ventilation to maintain levels below exposure guidelines.

Eye wash and safety equipment should be readily available.

Section 7: FIRST AID PROCEDURES

Skin: Wash off well with soap and water, remove contaminated clothing, seek medical attention if irritation develops.

Eyes: Immediately flush thoroughly with water for at least 15 minutes. Get prompt medical attention.

Inhalation: Remove to fresh air; give artificial respiration if not breathing. Get medical attention.

Ingestion: Do not induce vomiting. If conscious, give victim 2 glasses of water. Never give anything to an unconscious person. Get medical attention immediately.

Section 7: SPILL, DISPOSAL, HANDLING AND STORAGE PROCEDURES

Spill Procedure: Evacuate the area of all unnecessary personnel. Remove all sources of ignition. Ventilate area. Dike the spill to prevent entry into water system. Wear suitable protective equipment listed under preventative measures including respiratory protection.

Use inert absorbent material to clean up spill. Saturate spill with excess neutralizing solution (1% ammonia in water + 10% isopropanol). When reaction is complete, shovel into drums.

Disposal Procedure: Comply with Federal, provincial, and local regulations on reporting releases.

Handling & Storage: Store at temperature of 16-38°C (60-100°F), away from heat and moisture. Store and handle in a well ventilated area. Wear all personal protective equipment when handling.

Section 8: PREPARATION INFORMATION

Date: December 17, 2012

Revision: 1

PREPARED BY: Regulatory Affairs group,
Elastochem Specialty Chemicals Inc.

Section 9: REGULATORY INFORMATION

WHMIS CLASSIFICATION: D2A, D2B

TDG (TRANSPORATION OF DANGEROUS GOODS) CLASSIFICATION: Not
Regulated

Class: Not Regulated

Domestic Substance List (DSL): Yes

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Section 2: HAZARDOUS INGREDIENTS OF PRODUCT

Ingredient	% (w/W)	CAS #	Exposure Limit	LD50/LC50
Dimethylethanol amine	0-10%	108-01-0	Not Known	1180mg/kg (rat-oral) / 1000mg/l 4hr (rat-inhalation)
1,3-Propane diamine N'-(3-(dimethylamino)propyl)- N,N-dimethyl	1-10%	6711-48-4	Not Known	>1.25g/kg (rat-oral) / Not determined

Section 3: PHYSICAL PROPERTIES OF PRODUCT

Odour: Light ammonia
Appearance: clear to amber liquid
Odour threshold: no data
Specific Gravity (H2O = 1): 1.1 @ 25°C
Freezing Point: 0°C
Viscosity: 200-800 cps @20°C
Boiling Pt: 212°C
Vapor Pressure (mm Hg): Not available
Percent Volatile by vol (%): 1-10% (H₂O)
Vapor Density (Air = 1): Not available
Evaporation Rate (BuAc = 1): None
Solubility in Water (%): Miscible

Section 4: FIRE AND REACTIVITY HAZARD OF PRODUCT

Flash Point (°C): > 141 (PMCC)

Flammable Limits LEL (%): None

Flammable Limits UEL (%): None

Extinguishing Media : Use water spray, foam, dry chemical, or CO2. Water spray to cool fire-exposed containers.

Fire Fighting Procedures: Wear self-contained breathing apparatus is required in confined spaces. Cool exposed containers with water.

Explosion Data:

Sensitivity to mechanical impact: Not sensitive

Sensitivity to static discharge: Not sensitive

Stability: Stable at room temperature and normal processing conditions.

Hazardous Polymerization: None known.

Incompatibility: Reacts with strong acids and isocyanates.

Hazardous Decomposition products: oxides of nitrogen and carbon.

Section 5: HEALTH HAZARD INFORMATION

Routes of Exposure: Inhalation, skin contact, eye contact.

Acute Effects: May cause sore throat, eye or skin irritation

Chronic Effects: May cause severe skin and eye irritation and adverse respiratory effects.

LD50: oral-rat 1 360 mg/Kg

LD50: Dermal- rabbit 260 mg/Kg

Eyes: May cause severe irritation to the eyes.

Skin: May cause severe irritation to the skin.

Ingestion: Toxicity is low for ingestion

Inhalation: Excessive exposure may cause irritation of the upper respiratory tract and lungs.

Carcinogenicity: Not suspected to be carcinogenic

Teratogenicity/Reproductive effects: None

Mutagenicity: None

Section 6: Preventative Measures

Personal Protection:

Respiratory Protection: Use in adequate ventilation. In poorly ventilated areas, a cartridge respirator for organic vapours is recommended. For large spills or fires a self-contained breathing apparatus is recommended.

Skin Protection: Wear neoprene or butyl rubber gloves, boots and long sleeves are recommended.

Eye protection: Chemical safety goggles or glasses with side shields.

Ventilation: Adequate ventilation to maintain levels below exposure guidelines.

Eye wash and safety equipment should be readily available.

Section 7: FIRST AID PROCEDURES

Skin: Wash area with soap and water, seek medical attention if irritation develops.

Eyes: Immediately flush thoroughly with water for at least 15 minutes. Get prompt medical attention.

Inhalation: No exposure expected. Remove to fresh air.

Ingestion: If conscious, give victim 2 glasses of water. Never give anything to an unconscious person. Get medical attention immediately.

Section 7: SPILL, DISPOSAL, HANDLING AND STORAGE PROCEDURES

Spill Procedure: Evacuate the area of all unnecessary personnel. Ventilate area. Dike the spill to prevent entry into water system. Wear suitable protective equipment listed under preventative measures including respiratory protection.

Use inert absorbent material to clean up spill.

Disposal Procedure: Comply with Federal, provincial, and local regulations on reporting releases.

Handling & Storage: Store away from heat and moisture. Store and handle in a well ventilated area. Wear all personal protective equipment when handling.

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Domestic Substance List (DSL): Yes