

Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Insulthane 500 Part A  
**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 Foam Insulation System

Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

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	Not available
4'4'-Diphenyl methane diisocyanate	30-45	101-68-8	TWA 0.005 PPM PEL 0.02 PPM

Consult local authorities for acceptable exposure limits

Section 3: HAZARDS IDENTIFICATION

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

**Acute Effects:**

**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.

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

See toxicological information (section 11)

Section 4: FIRST AID MEASURES

**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 5: FIRE FIGHTING MEASURES**

**Extinguishing Media:** Use large amounts of water spray, foam, dry chemical, or CO<sub>2</sub>. Water spray to cool fire-exposed containers.  
**Fire Fighting Procedures:** Wear self-contained breathing apparatus. Cool exposed containers with water.  
**Special Procedures:** None  
**Flash Point (°C):** 199 °C  
**Lower Explosion Limit:** Not available  
**Upper Explosion Limit:** Not available  
**Auto Ignition Temperature:** Not available  
**Hazardous Combustion Products:** Oxides of carbon and nitrogen.  
**Sensitivity to mechanical impact:** No  
**Sensitivity to static discharge:** No

**Section 6: ACCIDENTAL RELEASE MEASURES**

**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.

**Section 7: HANDLING AND STORAGE**

**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.  
**Special shipping Information:** None

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONS**

**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 9: PHYSICAL AND CHEMICAL PROPERTIES**

**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<sup>-5</sup> 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 CO<sub>2</sub> gas

**Section 10: STABILITY AND REACTIVITY**

**Chemical Stability:** Stable at room temperature and normal processing conditions.  
**Conditions to avoid:** High temperature, sparks and open flames.  
**Incompatibility (Materials to avoid):** 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.  
**Hazardous Polymerization:** Polymerization Will not spontaneously occur under normal conditions. Avoid incompatible products below.

**Section 11: TOXICOLOGICAL INFORMATION**

**LD50:** oral-rat >10 000 mg/Kg  
**LD50:** Dermal- rabbit >6 200 mg/Kg  
**Carcinogenicity:** Not listed by IARC, NTP or regulated as a carcinogen by OSHA.  
**Teratogenicity/Reproductive effects:** Not available  
**Mutagenicity:** Not available  
**Name of toxicologically synergistic products:** Not available.

**Section 12: ECOLOGICAL INFORMATION**

**Biodegradability:** 0% Exposure Time: 28 days  
**Bioaccumulation:** Rainbow trout. Exposure Time: 112 days, <BCF. Does not bioaccumulate.  
**Fish Toxicity:** Zebra Fish, LC0: >1000mg/l, 96 hours.  
Killifish, LC0: >3000mg/l, 96 hours.

Daphnia Magna, EC50: >1000mg/l, 24 hours

Section 13: DISPOSAL CONSIDERATIONS

**Disposal Procedure:**

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

Consult your local or regional authorities.

Section 14: TRANSPORT INFORMATION

**TDG (TRANSPORATION OF DANGEROUS GOODS) CLASSIFICATION:** Not Regulated

**Class:** Not Regulated

Section 15: REGULATORY INFORMATION

**WHMIS CLASSIFICATION:** D2A, D2B

**Domestic Substance List (DSL):** Yes

Section 16: OTHER INFORMATION

**References:** Canadian Guide of the Law and Regulations of the Transportation of Dangerous Goods. Controlled products regulations. Manufacturer's Material Safety Data Sheet. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Other special considerations:** No additional remark

**Regulatory Affairs Department:** 519-754-1678

**DATE:** October 16, 2013

**REVISION 1**

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

Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Chemical Name:** Polymeric Resin  
**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 Foam Insulation System

Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient	% (w/W)	CAS #	Exposure Limit	LD50/LC50
Dimethylamino ethoxyethanol	0-5%	1704-62-7	Not available	2337mg/kg (rat-oral) / 1000mg/l 4hr (rat-inhalation)
1,3-Propane diamine N'-(3-(dimethylamino) propyl)- N,N-dimethyl	0-5%	6711-48-4	Not available	>1.25g/kg (rat-oral) / Not determined

Consult local authorities for acceptable exposure limits

Section 3: HAZARDS IDENTIFICATION

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

**Acute Effects:**

**Skin Contact-** May cause severe skin irritation.

**Eye Contact -** May cause severe eye irritation.

**Ingestion -** Toxicity is low.

**Inhalation-** May irritate the respiratory tract and lungs, cause sore throat, and tightness of chest.

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

See toxicological information (section 11)

Section 4: FIRST AID MEASURES

**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 5: FIRE FIGHTING MEASURES

**Extinguishing Media :** Use water spray, foam, dry chemical, or CO<sub>2</sub>. 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.

**Flash Point (°C):** > 141 (PMCC)

**Lower Explosion Limit:** Not available

**Upper Explosion Limit:** Not available

**Auto Ignition Temperature:** Not available

**Hazardous Combustion Products:** Oxides of carbon and nitrogen.

**Sensitivity to Mechanical Impact:** No

**Sensitivity to Static Discharge:** No

#### Section 6: ACCIDENTAL RELEASE MEASURES

**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.

#### Section 7: HANDLING AND STORAGE

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

**Special shipping Information:** None

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONS

##### **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 9: PHYSICAL AND CHEMICAL PROPERTIES

**Odour:** Light ammonia  
**Appearance:** Milky white liquid  
**Odour threshold:** no data  
**Specific Gravity (H<sub>2</sub>O = 1):** 1.1 @ 25°C  
**Freezing Point:** 0°C  
**Viscosity:** 1000 cps @20°C  
**Boiling Pt:** 212°C  
**Vapor Pressure (mm Hg)** : Not available  
**Percent Volatile by vol (%)**: 20-30% (H<sub>2</sub>O)  
**Vapor Density (Air = 1)** . . : Not available  
**Evaporation Rate (BuAc = 1)**: Not available  
**Solubility in Water (%)** : Miscible

Section 10: STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature and normal processing conditions.  
**Conditions to avoid:** High temperature, sparks and open flames.  
**Incompatibility (Materials to avoid):** Reacts with strong acids and isocyanates.  
**Hazardous Decomposition products:** oxides of nitrogen and carbon.  
**Hazardous Polymerization:** Polymerization may occur with contact with isocyanates.

Section 11: TOXICOLOGICAL INFORMATION

**LD50:** oral-rat: 1360 mg/Kg  
**LD50:** Dermal-rabbit: 260 mg/Kg  
**Carcinogenicity:** Not suspected to be carcinogenic  
**Teratogenicity/Reproductive effects:** Not available.  
**Mutagenicity:** Not available.  
**Name of toxicologically synergistic products:** None known.

Section 12: ECOLOGICAL INFORMATION

No ecological information available.

Section 13: DISPOSAL CONSIDERATIONS

**Disposal Procedure:**  
Comply with Federal, provincial, and local regulations on reporting releases.  
Consult your local or regional authorities.

Section 14: TRANSPORT INFORMATION

**TDG (TRANSPORTATION OF DANGEROUS GOODS) CLASSIFICATION:** Not Regulated

**Class:** Not Regulated

Section 15: REGULATORY INFORMATION

**WHMIS CLASSIFICATION:** Not Classified

**Domestic Substance List (DSL):** No

Section 16: OTHER INFORMATION

**References:** Canadian Guide of the Law and Regulations of the Transportation of Dangerous Goods. Controlled products regulations. Manufacturer's Material Safety Data Sheet. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Other special considerations:** No additional remark

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