

1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Proline Plus™ 300, Part A
Chemical Name:	Polymeric MDI
Manufacturer:	Elastochem Specialty Chemicals Inc. 37 Easton Road Brantford ON N3P 1J4 Phone (519) 754-1678 Fax (519) 754-4487
Supplied by:	Winroc
Emergency Telephone #:	Chemtrec Emergency Number: 800-424-9300
Intended Use of Product:	Component of a Foam Insulation System.

2: COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient	(w/W)	CAS #	Exposure Limit	LD50/LC50
Diphenylmethane diisocyanate (MDI)	1–5%	026447-40-5	TWA 0.005 ppm PEL 0.02 ppm	Not available. 172–187 mg/m ³ 4 hr (rat)
Polymethylene polyphenyl isocyanate	40–55%	009016-87-9	Not available.	>2 000 mg/kg (oral-rat) 490 mg/m ³ 4 hr (inhalation-rat)
4'4'-Diphenyl methane diisocyanate	30–45%	101-68-8	TWA 0.005 ppm PEL 0.02 ppm	>10 000 mg/kg (oral-rat) 490 mg/m ³ 4 hr (rat)

Consult local authorities for acceptable exposure limits.

3: HAZARDS IDENTIFICATION

Routes of Entry:	Eye contact, skin contact, ingestion, inhalation.
Acute Effects	
Eye Contact:	May cause slight irritation.
Skin Contact:	Prolonged or repeated exposure may cause skin irritation.
Inhalation:	Excessive exposure may cause irritation of the upper respiratory tract and lungs.
Ingestion:	Toxicity is low for ingestion.
Chronic Effects:	Chronic exposure to MDI may cause respiratory sensitization in susceptible individuals.

See toxicological information (section 11).

4: FIRST AID MEASURES

Skin:	Clean exposed area with soap and water. Remove contaminated clothing and seek medical attention if irritation develops.
Eyes:	Immediately flush thoroughly with water for at least 20 minutes lifting eye lids occasionally. 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.

5: FIRE FIGHTING MEASURES

Means of Extinction:	Use large amounts of water spray, foam, dry chemical, or CO ₂ . Water spray to cool fire-exposed containers.
Special Procedures:	None.
Flash Point:	199°C
Flammable Limits LEL:	Not available.
Flammable Limits UEL:	Not available.
Auto Ignition Temperature:	Not available.
Hazardous Combustion Products:	May produce carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanates, isocyanic acid.
Sensitivity to Mechanical Impact:	Not available.
Sensitivity to Static Discharge:	Not available.

6: ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedure:	Evacuate all non essential personnel. Ventilate the area. Dike the area to prevent spreading. Stop leak if safe to do so. Wear protective equipment. Cover spill area with suitable absorbent material (Kitty Litter, Oil-dri, etc.) and place in salvage drum. Prevent runoff into drains, sewers and other waterways.
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7: HANDLING AND STORAGE

Handling & Storage:	Store in a cool, dry place away from any sources of ignition. Handle in a well-ventilated area with local exhaust. Wear all personal protective equipment when handling the liquid product. Storage temperature 10–38°C.
Special Shipping Information:	None.

8: EXPOSURE CONTROLS/PERSONAL PROTECTIONS

Personal Protective Equipment:	A positive-pressure, supplied-air respirator is required for spraying and application of the product. For containment of spills, an air-purifying respirator equipped with an organic vapour cartridge with a full face shield should be worn.
Engineering Controls:	Local exhaust ventilation is recommended while spraying.

9: PHYSICAL AND CHEMICAL PROPERTIES

Odour:	Musty.
Appearance:	Brown liquid.
Physical State:	Liquid.
Odour Threshold:	200 ppm
Specific Gravity:	1.24 @ 25°C
Freezing Point:	< 0°C
Viscosity:	50–100 cps
Vapour Density:	No data.
Evaporation Rate:	3.6
Solubility in Water:	Nil.
% Volatile by Volume:	55–75%
Boiling Point:	208°C
pH:	N/A
Vapour Pressure:	<0.0001 mm Hg @ 20°C

10: STABILITY AND REACTIVITY

Chemical Stability:	Product is stable under normal conditions.
Conditions to Avoid (if unstable):	High temperatures, open flames and sparks.
Incompatibility (materials to avoid):	Water, amines, strong bases, alcohols. Copper alloys.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanates, isocyanic acid.
Hazardous Polymerization:	Polymerization will not occur.

11: TOXICOLOGICAL INFORMATION

LD50:	Oral-rat >2 000 mg/kg.
LC50:	Inhalation-rat 490 mg/m ³
Carcinogenicity:	Not listed by IARC, NTP or regulated as a carcinogen by OSHA.
Teratogenicity:	None known.
Reproductive Effects:	Not available.
Mutagenicity:	None known.

12: ECOLOGICAL INFORMATION

Ecological data is based on Polymeric MDI.

Biodegradability:	0%, Exposure Rate: 28 days.
Bioaccumulation:	Rainbow trout. Exposure time: 112 days, <1 BCF. Does not bioaccumulate.
Fish Toxicity:	LC0: >1 000 mg/l, 96 hr, Zebra Fish
Fish Toxicity:	LC0: >3 000 mg/l, 96 hr, Killifish
Fish Toxicity:	EC50: >1 000 mg/l, 24 hr, Daphnia Magna

13: DISPOSAL CONSIDERATIONS

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

Consult local or regional authorities.

14: TRANSPORT INFORMATION

TDG (Transportation of Dangerous Goods) Classification: Not regulated.

15: REGULATORY INFORMATION

WHMIS Classification: D2A, D-2B

Domestic Substance List (DSL): Yes.

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: 905 335-5012

Date: March 13, 2013 (Revision 2)

Prepared by: Regulatory Affairs Group, Winroc