

MSDS No.: 2264 Canada-EN Variant: Version No: 1.0 09/02/2005 Validation Date:

PETROTHENE® LM600700

SECTION 1: IDENTIFICATION

Product Name: PETROTHENE® LM600700

Product Number: 000000000000504270

Internal ID: P176

Chemical Family: Polyolefin

CAS Number: 9002-88-4

Chemical Name: Polyethylene Homopolymer

Synonyms: Polyethylene, PE, Polyolefin

Type of Use: Resins

Manufacturer Equistar Chemicals, LP One Houston Center, Suite 700 1221 McKinney St. P.O. Box 2583

Houston Texas 77252-2583

24 Hour Emergency Contact CANUTEC 613 996-6666

Equistar 800-245-4532

Business Contact

Customer Service 888 777-0232 **Product Safety** 800 700-0946

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#	EU Inventory	Concentra	tion Wt.%*	Risk	Symbol
Polyethylene, Homopolymer	9002-88-4	Monomers are EINECS listed	98.0	<= 100.0	None	None
Proprietary Additives	Mixture	Additives are FINECS listed		<= 2.0	None	None

Concentration of gaseous products or materials is given in Mole %

Compositions given are typical values not specifications.

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview

This material does not meet the hazard criteria specified by the Canadian Hazardous Products Act and its regulations.

Signal Word

CAUTION!

Hazards

WHMIS Class: Not Regulated. Dust may form explosive mixtures with air. At process temperatures irritating fumes may be produced. Molten polymer may cause thermal burns.

Physical State

Solid

Color

Translucent to white.





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Odor

Faint, mild hydrocarbon odor.

Odor Threshold

No value available.

Potential Health Effects

Routes of Exposure

Eye Skin. Inhalation

Polyethylene, Homopolymer 9002-88-4

Hot material may cause thermal burns. At process temperatures, irritating fumes may cause soreness in the nose and throat; coughing may result. Mechanical irritation is possible.

Skin

Molten polymer may cause thermal burns.

Inhalation

At process temperatures irritating fumes may be produced. Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. "Nuisance dust" such as polymer dust typically exhibit no significant health effect when they are reasonably controlled. Exposure to high concentrations of dust may cause slight irritation by mechanical action.

Eve

Mechanical irritation is possible.

Ingestion

Ingestion not a likely route of exposure.

Chronic Health Effects

No known chronic health effects.

Polyethylene, Homopolymer 9002-88-4

No known chronic health effects.

Conditions Aggravated by Exposure

No known conditions are aggravated by this material.

SECTION 4: FIRST AID MEASURES

General

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 3 of this MSDS.

Skin

If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin. Obtain immediate emergency medical attention if burn is deep or extensive.

Inhalation

If symptoms are experienced, move victim to fresh air. Obtain medical attention if breathing difficulty persists.

Eve

Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.

Ingestion

Adverse health effects due to ingestion are not anticipated.

Note to Physician





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There is no specific antidote; treatment of overexposure should be directed at control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification

Not Classified. Polymer will burn but does not easily ignite.

Flash Point:

Not applicable.

Auto-Ignition Temperature

343 °C (649.4 °F)

Extinguishing Media

Suitable: SMALL FIRE: Use DRY chemicals, CO2, water spray LARGE FIRES: Use large quantities of water spray.

Protection of Firefighters

Protective Equipment/Clothing: Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.

Fire Fighting Guidance: Polyolefin dust particles in the atmosphere are combustible and may be explosive. Keep away from heat, sparks, open flame, or any ignition source.

Hazardous Combustion Products: Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Release Response

Avoid generating dust. Potential dust explosion hazard. Use only non-sparking tools. Material creates dangerous slipping hazard on hard surfaces. Pick up and retain for recycle or disposal.

SECTION 7: HANDLING AND STORAGE

Handling

Keep away from heat, sparks, open flame, or any ignition source. Use with adequate ventilation. Material can make walking hazardous, potentially causing falls and serious injury. After handling, always wash hands thoroughly with soap and water.

Storage

Keep container dry. Store away from excessive heat and away from strong oxidizing agents. Keep container closed to prevent contamination.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls

Ventillate area to prevent accumulation of dust and fumes.

Personal Protection

<u>Inhalation</u> A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Use appropriate respiratory protection where atmosphere exceeds recommended limits.





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<u>Skin</u> Wear heat protective gloves and clothing if there is a potential for contact with heated material. Protective clothing such as long sleeves or a lab coat should be worn.

<u>Eye</u> Safety glasses are required as minimum requirements. Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles which may result from handling this product.

Additional Remarks

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Material spilled on hard surface can be a serious slipping/falling hazard. Use care in walking on spilled material.

Occupational Exposure Limits

Component Name	Source / Date	Value	Туре	Notation
Polyethylene, Homopolymer	US (ACGIH) / 2003	10 mg/m3 (Inhalable fraction)	8 HRS/TWA	No
	US (ACGIH) / 2003	3 mg/m3 (Respirable fraction)	8 HRS/TWA	No
Proprietary Additives	US (ACGIH) / 2003	N/L		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid Translucent to white.

Odor: Faint, mild hydrocarbon odor.

Odor Threshold: No value available.

pH: Not applicable.

Boiling Point/Boiling Range: Not applicable.

Freezing Point/Melting Point: 104 - 138 °C (219.2 - 280.4 °F)

Flash Point: Not applicable.

Auto-ignition: 343 °C (649.4 °F)

Flammability: Not Classified. Polymer will burn but does not easily ignite.

Lower Flammable Limit:

Upper Flammable Limit:

Explosive Properties: No Data Available.

Oxidizing Properties: No Data Available.

Vapor Pressure: Not applicable.

Evaporation Rate: Not applicable.

Relative Density: 0.91 - 0.98 (water=1)





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Relative Vapor Density: Not applicable.

Viscosity: Not applicable.

Solubility (Water): Insoluble.

Partition Coefficient (Kow): Specific data not available.

Additional Physical and Chemical Properties: No additional information available.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

The product is stable.

Substances to Avoid

Material may be softened by some hydrocarbons.

Decomposition Products

Not expected to decompose under normal conditions.

Hazardous Polymerization

Will not occur.

Reactions with Air and Water

Does not react with air, water or other common materials.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION

Product Summary

See component summary.

COMPONENT INFORMATION

• Polyethylene, Homopolymer 9002-88-4

Acute Toxicity - Effects

Inhalation Rats inhaling polyethylene dust developed mild inflammatory changes in the lungs.

Ingestion No adverse health effects were noted on the digestive system of test animals when fed up to 20% polyethylene.

Repeated Dose Toxicity

Subchronic, 50-90 day, feeding studies conducted on rats, dogs and swine showed no effects from dietary levels of 1-20% powdered and shredded polyethylene.

Carcinogenicity

Not listed by IARC, NTP, or OSHA.

Proprietary Additives

Repeated Dose Toxicity





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No known chronic health effects.

Carcinogenicity

Not listed by IARC, NTP, or OSHA.

SECTION 12: ECOLOGICAL INFORMATION

PRODUCT INFORMATION

Ecotoxicity

See component summary.

Environmental Fate and Pathway

See component summary.

COMPONENT INFORMATION

Polyethylene, Homopolymer 9002-88-4

Ecotoxicity

Ecotoxicity is expected to be minimal based on the low water solubility of polymers.

Environmental Fate and Pathway

This material is not volatile and insoluble in water.

Persistance and Degradability

Biodegradation: This material is not expected to be readily biodegradable.

Bioaccumulation: This material is not expected to bioaccumulate.

Proprietary Additives

Ecotoxicity

No Data Available.

Environmental Fate and Pathway

No Data Available.

SECTION 13: DISPOSAL CONSIDERATIONS

Use only licensed transporters and permitted facilities for waste disposal. Comply with federal, state, or local regulations for disposal. Recycle if possible.

SECTION 14: TRANSPORT INFORMATION

Special Requirements





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If you reformulate or further process this material, you should consider re-evaluation of the regulatory status of the components listed in the composition section of this sheet, based on final composition of your product.

Proper Shipping Name POLYETHYLENE, OTHER THAN LIQUID

SECTION 15: REGULATORY INFORMATION

Regulatory Status

Country	Inventory			
Australia	AICS	Х		
Canada	DSL	Х	X = All components are included or are otherwise	
Canada	NDSL		exempt from inclusion on this inventory.	
China	IECS	Х		
European Union	EINECS	Х		
European Union	ELINCS			
European Union	NLP		C = Contact Lyondell/Equistar by e-mail at	
Japan	ENCS	Х	product.safety@lyondell.com or	
Korea	ECL	Х	product.safety@equistarchem.com for addition	
Philippines	PICCS	Х	information.	
United States	TSCA	Х		

If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

SARA 302/304

No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels established by SARA Title III, Section 313 and 40 CFR 372.

<u>Component</u> <u>Reporting Threshold</u>

SECTION 16: OTHER INFORMATION

Latest Revision(s)

Conversion to SAP template. May 5 2004

DISCLAIMER OF RESPONSIBILITY

CAUTION DO NOT USE EQUISTAR MATERIALS IN APPLICATIONS INVOLVING IMPLANTATION WITHIN THE BODY; DIRECT OR INDIRECT CONTACT WITH THE BLOOD PATHWAY; CONTACT WITH BONE, TISSUE, TISSUE FLUID, OR BLOOD; OR PROLONGED CONTACT WITH MUCOUS MEMBRANES. EQUISTAR MATERIALS ARE NOT DESIGNED OR MANUFACTURED FOR USE IN IMPLANTATION IN THE HUMAN BODY OR IN CONTACT WITH INTERNAL BODY FLUIDS OR TISSUES. EQUISTAR WILL NOT PROVIDE TO CUSTOMERS MAKING DEVICES FOR SUCH APPLICATIONS ANY NOTICE, CERTIFICATION OR INFORMATION NECESSARY FOR SUCH MEDICAL



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Numerical Data Presentation

The presentation of numerical data, such as that used for physical and chemical properties and toxicological values, is expressed using a comma (,) to separate digits into groups of three and a period (.) as the decimal marker. For example, 1,234.56 mg/kg = 1 234,56 mg/kg

Language Translations

The information presented in this document has been translated from English by a vendor Lyondell believes to be reliable. Lyondell and its vendor have made a good-faith effort to verify the accuracy of the translation, but assume no responsibility for any errors that may have occurred. Please refer to our web sites (www.lyondell.com and www.equistarchem.com) for the original document written in English.

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