

ALATHON® M4621

SECTION 1: IDENTIFICATION

Product Name: ALATHON® M4621

Product Number: 000000000000001268

Chemical Family: Polyethylene copolymer

CAS Number: 26221-73-8

Chemical Name: 1-Octene, polymer with ethene

Synonyms: Polyethylene, PE, Ethene/Octene Copolymer

Manufacturer

Equistar Chemicals, LP
One Houston Center, Suite 1600
1221 McKinney St.
P.O. Box 2583
Houston Texas 77252-2583

Business Contact

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

24 Hour Emergency Contact

CHEMTREC 800 424-9300
EQUISTAR 800-245-4532

SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS #</u>	<u>EU Inventory</u>	<u>Concentration Wt.%*</u>		<u>Risk</u>	<u>Symbol</u>
1-Octene, polymer with ethene	26221-73-8	Monomers are EINECS listed	98.0	<= 100.0	None	None
Proprietary Additives	Mixture	Additives are EINECS 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 is NOT HAZARDOUS by OSHA Hazard Communication definition. Trade secret chemical identities will be revealed to treating physicians in an emergency, or to a health professional, employee or designated representative in non-emergency situations after execution of a secrecy agreement.

Signal Word

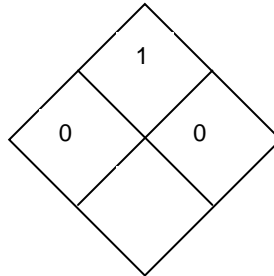
Caution.

Hazards

Dust may form explosive mixtures with air. At process temperatures irritating fumes may be produced. Molten polymer may cause thermal burns.

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NFPA®



HMIS®

Health	0
Flammability	1
Reactivity	0

Physical State

Solid

Color

Translucent to white.

Odor

Faint, mild hydrocarbon odor.

Odor Threshold

No value available.

Potential Health Effects

Routes of Exposure

Eye Inhalation Skin.

Signs and Symptoms of Acute Exposure

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.

- *1-Octene, polymer with ethene 26221-73-8*

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

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.

Eye

Mechanical irritation is possible.

Ingestion

Ingestion not a likely route of exposure.

Chronic Health Effects

No known chronic health effects.

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No known chronic health effects.

Conditions Aggravated by Exposure

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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.

Inhalation

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

Eye

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

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Treat burns or allergic reactions conventionally after decontamination.

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)

Lower Flammable Limit

Not applicable.

Upper Flammable Limit

Not applicable.

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

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Release Response

Avoid generating dust. Potential dust explosion hazard. Use only non-sparking tools. Round cylinder shape causes dangerous walking or standing on hard, smooth surface. 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

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal Protection

Inhalation Use appropriate respiratory protection where atmosphere exceeds recommended limits.

Skin Use chemical resistant gloves appropriate to conditions of use. Protective clothing such as long sleeves or a lab coat should be worn. Wear heat protective gloves and clothing if there is a potential for contact with heated material.

Eye 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.

Occupational Exposure Limits

Component Name	Source / Date	Value	Type	Notation
1-Octene, polymer with ethene	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		
	US (OSHA) / 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: 136 °C (276.8 °F)

Flash Point: Not applicable.

Auto-ignition: 343 °C (649.4 °F)

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

Lower Flammable Limit: Not applicable.

Upper Flammable Limit: Not applicable.

Explosive Properties: No Data Available.

Oxidizing Properties: No Data Available.

Vapor Pressure: Not applicable.

Evaporation Rate: Not applicable.

Relative Density: 0.92 - 0.98 (water=1)

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.

Conditions to Avoid

Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

Substances to Avoid

Material may be softened by some hydrocarbons.

Decomposition Products

Not expected to decompose under normal conditions.

Hazardous Polymerization

Not likely.

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

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- *1-Octene, polymer with ethene* 26221-73-8

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

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

- *1-Octene, polymer with ethene* 26221-73-8

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.

Persistence and Degradability

Biodegradation: This material is expected to be resistant to biodegradation.

Bioaccumulation: This material is not expected to bioaccumulate.

- *Proprietary Additives*

Ecotoxicity

No Data Available.

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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

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

NON_REG POLYETHYLENE, OTHER THAN LIQUID

SECTION 15: REGULATORY INFORMATION

Regulatory Status

Country	Inventory	
Australia	AICS	X
Canada	DSL	X
Canada	NDSL	
China	IECS	X
European Union	EINECS	X
European Union	ELINCS	
European Union	NLP	
Japan	ENCS	
Korea	ECL	X
Philippines	PICCS	X
United States	TSCA	X

X = All components are included or are otherwise exempt from inclusion on this inventory.

C = Contact Lyondell/Equistar by e-mail at product.safety@lyondell.com or product.safety@equistarchem.com for additional information.

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 311/312

Based upon available information, this material is not classified as a health and/or physical hazard according to Section 311 & 312.

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.

ALATHON® M4621ComponentReporting Threshold**SECTION 16: OTHER INFORMATION**

Latest Revision(s)

Revised Section(s): 15 Date of Revision: October 2003 Conversion to SAP template. April 28 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 DEVICE USE REQUIRED BY FDA REGULATION OR ANY OTHER STATUTE. EQUISTAR MAKES NO REPRESENTATION, PROMISE, EXPRESS WARRANTY OR IMPLIED WARRANTY CONCERNING THE SUITABILITY OF THESE MATERIALS FOR USE IN IMPLANTATION IN THE HUMAN BODY OR IN CONTACT WITH INTERNAL BODY TISSUES OR FLUIDS. The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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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