

PETROTHENE® GA502022

SECTION 1: IDENTIFICATION

Product Name: PETROTHENE® GA502022

Product Number: 000000000000504003

Chemical Family: Polyethylene copolymer

CAS Number: 25087-34-7

Chemical Name: 1-Butene, polymer with ethene

Synonyms: Polyethylene, PE, Ethene/butene Copolymer

Company

Equistar Chemicals, LP
One Houston Center, Suite 700
1221 McKinney St.
P.O. Box 2583
Houston Texas 77252-2583

Business Contact

Customer Service
888 777-0232
Product Safety
800 700-0946
product.safety@lyondell.com

24 Hour Emergency Contact

CHEMTREC 800 424-9300
EQUISTAR 800-245-4532

SECTION 2: 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.

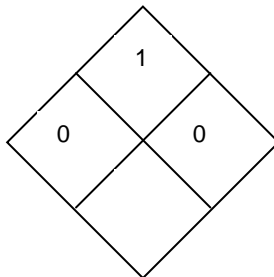
Signal Word

CAUTION.

Hazards

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

NFPA®



HMIS®

Health	0
Flammability	1
Physical Hazard	0

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. Inhalation. Skin.

Signs and Symptoms of Acute Exposure

See component summary.

- *1-Butene, polymer with ethene 25087-34-7*

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.

- No known acute health effects.

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.

- *1-Butene, polymer with ethene 25087-34-7*

No known chronic health effects.

- No known chronic health effects.

Conditions Aggravated by Exposure

No known conditions are aggravated by this material.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS #</u>	<u>EU Inventory</u>	<u>Concentration Wt. %</u>
1-Butene, polymer with ethene	25087-34-7	Monomers Are EINECS Listed Additives are EINECS listed	98.0 <= 100.0 <= 2.0

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Compositions given are typical values not specifications.

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 2 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.

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

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.

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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

Equip responders with proper protection. Potential dust explosion hazard. Avoid generating dust. Creates dangerous slipping hazard on any hard smooth surface. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.

SECTION 7: HANDLING AND STORAGE

Handling

Keep material off walking surfaces, it may create a slipping hazard. Polymer dust may form explosive mixtures with air. Avoid accumulation of dust in enclosed space. Use in well-ventilated area. Ground and bond equipment to prevent electrostatic charge when transferring product. Control spilled material to prevent runoff to the sewers and the environment.

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

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.

Skin

Protective clothing such as long sleeves or a lab coat should be worn.

Eye

Safety glasses are required as minimum requirements.

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. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices.

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Additional Remarks

Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

Occupational Exposure Limits

Consult local authorities for acceptable exposure limits.

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: 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: 0.91 - 0.98 (water=1)

Relative Vapor Density: Not applicable.

Viscosity: Not applicable.

Solubility (Water): Insoluble.

Partition Coefficient (Kow): No Data Available.

Additional Physical and Chemical Properties: No additional information available.

SECTION 10: STABILITY AND REACTIVITY

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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

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 Toxicity Information).

COMPONENT INFORMATION

- *1-Butene, polymer with ethene* 25087-34-7

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, OSHA or EPA.

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Repeated Dose Toxicity

No known chronic health effects.

Carcinogenicity

Not listed by IARC, NTP, OSHA or EPA.

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SECTION 12: ECOLOGICAL INFORMATION

PRODUCT INFORMATION

Ecotoxicity

See componentsummary.

Environmental Fate and Pathway

See componentsummary.

COMPONENT INFORMATION

- 1-Butene, polymer with ethene 25087-34-7

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: Not expected to occur.

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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

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.

PETROTHENE® GA502022**Proper Shipping Name** POLYETHYLENE, OTHER THAN LIQUID, NOT REGULATED**SECTION 15: REGULATORY INFORMATION**

Regulatory Status

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

Contact Product.Safety@Lyondell.com for additional global inventory 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

This product contains no known chemicals regulated under SARA 302/304.

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 product contains no known chemicals regulated under SARA 313.

State Reporting

This product contains no known chemicals regulated by California's Proposition 65.

This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act.

This product contains no known chemicals regulated by Massachusetts' Right to Know Law.

This product contains no known chemicals regulated by Pennsylvania's Right to Know Act.

SECTION 16: OTHER INFORMATION

Latest Revision(s)

Revised Section(s): 2 4 6 12 14 February 2008

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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

This document may be available in languages other than English.

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