

**PETROTHENE® GA601032**

**SECTION 1: IDENTIFICATION**

**Product Name:** PETROTHENE® GA601032

**Product Number:** 000000000000504018

**Chemical Family:** Polyethylene copolymer, Polyolefin Copolymer

**CAS Number:** 25213-02-9

**Chemical Name:** 1-Hexene,polymer with ethene

**Synonyms:** Polyethylene; PE; Ethylene/Hexene Copolymer

**Type of Use:** Resins

**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 purchasers after execution of a secrecy agreement.

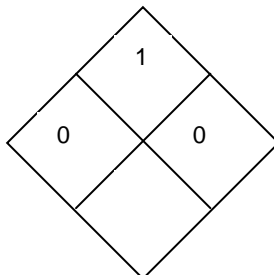
**Signal Word**

CAUTION.

**Hazards**

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

NFPA®



HMIS®

Health	0
Flammability	1
Physical Hazard	0

**Physical State**

Solid

**Color**

Translucent to white.

## PETROTHENE® GA601032

### 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-Hexene, polymer with ethene* 25213-02-9

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

See component summary.

- *1-Hexene, polymer with ethene* 25213-02-9

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-Hexene, polymer with ethene	25213-02-9	Monomers are EINECS listed	98.0 <= 100.0
		Additives are EINECS listed	<= 2.0

## **PETROTHENE® GA601032**

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. Seek medical attention if discomfort persists.

#### **Eye**

Wash eyes with clean low-pressure water. 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 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 chemical, CO<sub>2</sub>, water spray or regular foam. LARGE FIRES: Use large quantities of water spray.

#### **Protection of Firefighters**

##### **Protective Equipment/Clothing:**

Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

## **PETROTHENE® GA601032**

### **Fire Fighting Guidance:**

Polyolefin dust particles in the atmosphere are combustible and may be explosive. Keep away from heat, sparks, flame and all other ignition sources. Keep container closed. Prevent dust accumulations and dust clouds.

### **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. Spilled 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

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

Use chemical resistant gloves appropriate to conditions of use. 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.

#### 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. 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. 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.

## **PETROTHENE® GA601032**

### **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:** 136 °C (276.8 °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:** 0.92 - 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.

## **PETROTHENE® GA601032**

### **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 components summary.

### **COMPONENT INFORMATION**

---

- *1-Hexene, polymer with ethene* 25213-02-9

#### **Acute Toxicity - Effects**

##### Inhalation

Rats inhaling polyethylene dust developed mild inflammatory changes in the lungs. Prolonged inhalation of thermal degradation products from polyethylene caused neurological effects in rats.

##### Ingestion

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

#### **Irritation**

##### Skin

No adverse effects are expected.

#### **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.

•

#### **Repeated Dose Toxicity**

No known chronic health effects.

#### **Carcinogenicity**

Not listed by IARC, NTP, OSHA or EPA.

## PETROTHENE® GA601032

### SECTION 12: ECOLOGICAL INFORMATION

---

#### PRODUCT INFORMATION

---

##### Ecotoxicity

See componentsummary.

##### Environmental Fate and Pathway

See componentsummary.

#### COMPONENT INFORMATION

---

- 1-Hexene, polymer with ethene 25213-02-9

##### Ecotoxicity

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

##### Environmental Fate and Pathway

###### Persistence and Degradability

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

Bioaccumulation: This material is not expected to bioaccumulate.

- 

##### 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.

Proper Shipping Name POLYETHYLENE, OTHER THAN LIQUID, NOT REGULATED

**PETROTHENE® GA601032****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): 14 15 February 2008

---

**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



## **PETROTHENE® GA601032**

---

### **DISCLAIMER OF RESPONSIBILITY**

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.

**< end of document >**