

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



## Polyethylene (HDPE) OP005

Version / Revision	1	Revision Date	11-Oct-2019
Supersedes Version	-	Issuing date	11-Oct-2019

## SECTION 1: Identification of the substance / mixture and of the company / undertaking

### 1.1. Product identifier

Identification of the substance/preparation

## Polyethylene (HDPE)

Synonyms

1-Butene, Polymer with Ethene:  
Luban DMDA-6200 / Luban DMDD-6200 / Luban DMDH-6400 / Luban DGDX-6097 / Luban DMDA-8007 / Luban HMA016  
1-Hexene, Polymer with Ethene:  
Luban DMDZ-6147 / Luban DGDZ-6095 / Luban DGDZ-2400

Product form

Mixture

CAS-No

25087-34-7 (1-Butene, Polymer with Ethene)  
25213-02-9 (1-Hexene, Polymer with Ethene)

EC No.

607-541-7 (1-Butene, Polymer with Ethene)  
607-647-3 (1-Hexene, Polymer with Ethene)

Registration number (REACH) -

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Industrial / Professional use spec

Industrial  
For professional use only

Identified uses

Industrial processing & uses

Uses advised against

None

### 1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification

Orpic Polymer Marketing, LLC  
PO Box 3568  
PC 112 Ruwi, Muscat, Sultanate of Oman  
T +968 22144274 / +968 91999088  
polymers@orpic.om - www.orpic.om

### 1.4. Emergency telephone number

Emergency telephone number +968 22144444 (Muscat)  
+968 22105555 (Suhar)

National emergency telephone number National Poisons Information Service  
(Birmingham Centre) City Hospital  
Dudley Road

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B18 7QH Birmingham  
United Kingdom  
T +44 3448920111  
available 24/7

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Based on present data no classification and labelling is required according to Directive 1272/2008/EC and its amendments (CLP Regulation)

### 2.2. Label elements

Not required.

**Unknown hazards to the aquatic environment (CLP)** Polymers are not expected to be hazardous to the environment

### 2.3. Other hazards

Dust can form an explosive mixture in air  
Eye mechanical irritation is possible

PBT and vPvB assessment Not required

## SECTION 3: Composition / information on ingredients

3.1. Substances not applicable

### 3.2. Mixtures

Component	CAS-No	REACH-No	1272/2008/EC	Concentration (%)
1-Butene, Polymer with Ethene	25087-34-7	-	-	> 99
1-Hexene, Polymer with Ethene	25213-02-9	-	-	> 99
Non-hazardous additives	-	-	-	< 1

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General advice

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

#### Inhalation

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If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Allow the victim to rest.

## **Skin**

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. After contact with the molten product, cool rapidly with cold water. Removal of solidified molten material from skin requires medical assistance.

## **Eyes**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

## **Ingestion**

Rinse mouth. If you feel unwell, seek medical advice.

## **4.2. Most important symptoms and effects, both acute and delayed**

### **Symptoms/effects after inhalation**

Inhalation of vapors may cause respiratory irritation.

### **Symptoms/effects after skin contact**

Risk of thermal burns on contact with molten product.

### **Symptoms/effects after eye contact**

Causes serious eye irritation.

### **Symptoms/effects after ingestion**

Risk of thermal burns on contact with molten product. May be a choking hazard.

## **4.3. Indication of any immediate medical attention and special treatment needed**

### **Treatment**

Treat symptomatically and supportively.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Foam. Dry powder. Carbon dioxide. Water spray. Sand.

#### **Unsuitable Extinguishing Media**

Do not use a solid water stream as it may scatter and spread fire.

### **5.2. Special hazards arising from the substance or mixture**

#### **Fire hazard**

Burning produces irritating, toxic and noxious fumes. Combustible dust.

#### **Explosion hazard**

Dust may form explosive mixture in air. Dust cloud in combination with static electricity can very be explosive.

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## 5.3. Advice for firefighters

### Firefighting instructions

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Keep people away from and upwind of fire.

### Protection during firefighting

Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing. EN469.

## **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General measures

Avoid contact with skin, eyes and clothing.

#### 6.1.1. For non-emergency personnel

##### Protective equipment

Refer to section 8.2.

##### Emergency procedures

Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

##### Protective equipment

Refer to section 8.2.

##### Emergency procedures

Evacuate unnecessary personnel.

### 6.2. Environmental precautions

#### Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

#### Methods for containment

Avoid generating dust. Contain and collect as any solid.

#### Methods for cleaning up

On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### 6.4. Reference to other sections

For personal protective equipment see section 8.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Ground/bond container and receiving equipment.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures

Proper grounding procedures to avoid static electricity should be followed.

#### Storage Conditions

Keep only in the original container. Keep container closed when not in use.

#### Incompatible products

Moisture. Strong oxidizers.

#### Incompatible materials

Sources of ignition. Direct sunlight.

#### Storage area

Store in dry, cool, well-ventilated area.

### 7.3. Specific end use(s)

#### Identified uses

Industrial processing & uses.

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

#### Exposure limits European Union

No exposure limits established

#### Exposure limits UK

##### EH40 WELs

Component	TWA (mg/m <sup>3</sup> )	TWA (ppm)	STEL (mg/m <sup>3</sup> )	STEL (ppm)
Dust, general threshold limit value (inhalable fraction) CAS: -	10			
Dust, general threshold limit value (respirable fraction)	4			

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CAS: -				
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## Note

For details and further information please refer to the original regulation.

## DNEL & PNEC

Not required.

## 8.2. Exposure controls

### Special adaptations (REACH)

This substance is exempted from REACH (1907/2006).

### Appropriate Engineering controls

Avoid dispersal of dust in the air (clearing dust surfaces with compressed air). Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation. Use spark-/explosion proof appliances and lighting system.

### Personal protective equipment

Avoid all unnecessary exposure.

### Hand protection

Wear dust impervious gloves. Nitrile rubber. Neoprene/natural rubber. Heat protective impervious gloves when handling molten product.

### Eye protection

Chemical goggles or safety glasses. When handling in molten state: Face shield.

### Skin and body protection

Wear suitable protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material.

### Thermal hazard protection

Flame retardant clothing should be used when handling in molten state.

### Other information

Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Appearance	pellets
Colour	white, clear
Odour	slight

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<b>Odour threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/range</b>	118 - 140 °C
<b>Freezing point</b>	No data available
<b>Boiling point/range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	not flammable
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available

<b>Relative density</b>			
Values	@ °C	@ °F	Method
948 - 965	-	-	-
<b>Solubility</b>	insoluble in water		
<b>log Pow</b>	No data available		
<b>Autoignition temperature</b>	349 °C		
<b>Decomposition temperature</b>	> 300 °C		
<b>Viscosity</b>	No data available		
<b>Explosive properties</b>	No data available		
<b>Oxidizing properties</b>	No data available		

## 9.2. Other information

<b>Molecular formula</b>	$-(C_4H_8.C_2H_4)_x-$ $-(C_6H_{12}.C_2H_4)_x-$
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## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Avoid creating or spreading dust.

### 10.5. Incompatible materials

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Strong oxidizers. Moisture.

## 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Burning produces irritating, toxic and noxious fumes.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Likely routes of exposure

Eye contact, Ingestion, Inhalation, Skin contact

Acute toxicity				
<b>1-Butene, Polymer with Ethene (25087-34-7)</b>				
Routes of Exposure	Endpoint	Values	Species	Method
Oral	LD50	> 5000 mg/kg	rat	
Dermal	LD50	> 2000 mg/kg	rat	

1-Hexene, Polymer with Ethene (25213-02-9)				
Routes of Exposure	Endpoint	Values	Species	Method
Oral	LD50	> 5000 mg/kg	rat	
Dermal	LD50	> 2000 mg/kg	rat	

#### **1-Butene, Polymer with Ethene, CAS: 25087-34-7**

##### Assessment

Based on available data, the classification criteria are not met for:

Acute oral toxicity

Acute dermal toxicity

For acute inhalation toxicity, no data are available

#### **1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

##### Assessment

Based on available data, the classification criteria are not met for:

Acute oral toxicity

Acute dermal toxicity

For acute inhalation toxicity, no data are available

#### **1-Butene, Polymer with Ethene, CAS: 25087-34-7**

##### Assessment

For skin irritation, no data are available

For eye irritation, no data are available

For respiratory irritation, no data are available

#### **1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

##### Assessment

For skin irritation, no data are available

For eye irritation, no data are available

For respiratory irritation, no data are available

#### **1-Butene, Polymer with Ethene, CAS: 25087-34-7**

##### Assessment



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For skin sensitization, no data are available  
For respiratory sensitization, no data are available

**1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

**Assessment**

For skin sensitization, no data are available  
For respiratory sensitization, no data are available

**1-Butene, Polymer with Ethene, CAS: 25087-34-7**

**Assessment**

For subacute, subchronic and prolonged toxicity, no data are available

**1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

**Assessment**

For subacute, subchronic and prolonged toxicity, no data are available

**1-Butene, Polymer with Ethene, CAS: 25087-34-7**

**Evaluation**

For carcinogenicity, no data are available  
For mutagenicity, no data are available  
For reproductive toxicity, no data are available

**1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

**Evaluation**

For carcinogenicity, no data are available  
For mutagenicity, no data are available  
For reproductive toxicity, no data are available

**1-Butene, Polymer with Ethene, CAS: 25087-34-7**

**Aspiration toxicity**

no data available

**1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

**Aspiration toxicity**

no data available

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

No data available

### **Unknown hazards to the aquatic environment (CLP)**

Polymers are not expected to be hazardous to the environment.

### **12.2. Persistence and degradability**

**1-Butene, Polymer with Ethene, CAS: 25087-34-7**

**Biodegradation**

Not readily biodegradable.

**1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

**Biodegradation**

Not readily biodegradable.

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## 12.3. Bioaccumulative potential

Not expected to bioaccumulate

## 12.4. Mobility in soil

Low mobility (soil)

## 12.5. Results of PBT and vPvB assessment

Not required

## 12.6. Other adverse effects

No data available

### Note

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Waste disposal recommendations

Dispose in a safe manner in accordance with local/national regulations.

#### Ecology - waste materials

Avoid release to the environment.

#### European List of Waste (LoW) code

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

## SECTION 14: Transport information

### Section 14.1 - 14.6

#### ADR/RID

Not restricted

#### ADN

Not restricted

#### ICAO-TI / IATA-DGR

Not restricted

#### IMDG

Not restricted

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### National regulatory information Great Britain

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## Releases to air (Pollution Inventory Substances)

Component	Annual reporting level threshold
Dust, general threshold limit value (inhalable fraction) CAS: -	10 tonnes, listed as particulates - total

## Releases to water (Pollution Inventory Substances)

not subject

## Releases to sewer (Pollution Inventory Substances)

not subject

For details and further information please refer to the original regulation

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### Regulation 1272/2008, Annex VI

not listed

#### DI 2012/18/EU (Seveso III)

Category not subject

#### DI 1999/13/EC (VOC Guideline)

Component	Status
1-Butene, Polymer with Ethene CAS: 25087-34-7	not subject
1-Hexene, Polymer with Ethene CAS: 25213-02-9	not subject

#### International Inventories

##### 1-Butene, Polymer with Ethene, CAS: 25087-34-7

AICS (AU)

DSL (CA)

IECSC (CN)

ENCS (6)-18 (JP)

ISHL (6)-18 (JP)

KECI KE-04086 (KR)

PICCS (PH)

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TSCA (US)  
NZIoC-NZ May be used as single component chemical  
TCSI (TW)

## **1-Hexene, Polymer with Ethene, CAS: 25213-02-9**

AICS (AU)  
DSL (CA)  
IECSC (CN)  
ENCS (6)-1594 (JP)  
ISHL 9-335 (JP)  
KECI KE-13670 (KR)  
PICCS (PH)  
TSCA (US)  
NZIoC-NZ May be used as single component chemical  
TCSI (TW)

## **15.2. Chemical safety assessment**

The Chemical Safety Report (CSR) is not required.

## **SECTION 16: Other information**

### **Abbreviations**

A table of terms and abbreviations can be found under the following link:  
[http://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r20\\_en.pdf](http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf)

### **Training advice**

For effective first-aid, special training / education is needed.

### **Sources of key data used to compile the datasheet**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <https://echa.europa.eu/en/information-on-chemicals/cl-inventory-database>. European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

### **Further information for the safety data sheet**

Changes against the previous version are marked by \*\*\*. Observe national and local legal requirements. For more information, other safety data sheets or technical data sheets please consult the Orpic homepage ([www.orpic.com](http://www.orpic.com)). The annex is not required because this material is exempted from REACH

### **Safety Data Sheet prepared by:**

**OXEA GmbH**  
Rheinpromenade 4A  
D-40789 Monheim  
Germany

### **Disclaimer**

This Information is based on our current knowledge and is intended to describe the product for the purposes of health,

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safety and environmental requirements only. It should not therefore be construed as guaranteeing and specific property of the product.

**End of Safety Data Sheet**