

POLYETHYLENE LLDPE

WARNING :

FOR STACKING

PALLETS, SEE

SECTION 7



1. Identification of the substance / preparation and of the company / undertaking

Trade name	LOTRENE
Name of the product	Linear Low Density Polyethylene (LLDPE)
Chemical name	Polyethylene (Polythene) co-polymer
Material Use	For more detailed information, see technical data sheet.

RESPONSIBLE FOR PLACING ON THE MARKET

Trade name of the firm	See below this page
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COMPANY INFORMATION

Company Name	QATOFIN Company Limited
	P. O. Box 55013, DOHA- QATAR

EMERGENCY NUMBER

Telephone number	(+974) 477 7666
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2. Hazards identification

Main hazards	None to our knowledge Low risk for temperatures below 130 °C
Symptoms related to use	
Inhalation	Fine dust may cause irritation of respiratory system and mucous. If heated to more than 130°C, the product may form vapors or fumes which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath.

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Skin contact	In contact with hot material, may cause severe thermal Burns
Eye contact	Fine dust may cause irritation to ocular mucous.
Ingestion	Polyolefin are biologically inert.
Adverse environmental effects	Because of its structure, the product should not be Dangerous for aquatic life Non biodegradable
Adverse physicochemical effects	Combustible if exposed to flames. Flowing product can create electrical charge, resulting Sparks may ignite dust or cause an explosion in some Concentration ranges.

3. Composition / information on ingredients

Chemical name	Polyethylene
CAS number	25087-34-7 (LLDPE)
EINECS or ELINCS number	the product is a polymer, following the European Regulation, registration on the EINECS (European Inventory of Existing Commercial Chemical Substances) Inventory is not required.
Substances presenting a health hazard	None to our knowledge
Chemical family	Olefinic polymer
Additives	Antioxidants and stabilisers: 0, 7 % maximum

4. First-aid measures

Route of exposure	
Inhalation	Exposure to spray, fumes and vapors produced by heated or burned product: Bring patient into fresh air seek medical advice.
Skin contact	Exposure to splashing of hot product: Treat the affected part with cold water (by spraying or immersion). No attempt should be made to detach molten product adhering to the skin or to remove clothing attached with molten material, the injured body part would risk being pulled out; usually the layer detaches itself after a few days. In case of severe burns, seek hospital treatment

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Eye contact

exposure to splashing of hot product:
 Treat the eyes with cold water.
 Seek specialist advice at hospital or medical centre
 Fine dust may cause irritation to ocular mucous.
 In case of irritation caused by fine dust: wash with
 copious volumes of water, until the irritation disappears.

5. Fire - fighting measures

Fire-class regulation

A: Solid material fires, principally of organic nature, that
 burn with incandescence

Technical measures

Stop the fire spreading.
 Call the fire brigade immediately.
 Evacuate non-essential personnel protective clothing,
 goggles and self-contained breathing equipment should
 be made available for firemen.

Extinguishing media

Suitable

For minor fires: carbon dioxide (CO₂) or powder, water
 For more extensive fires: foam. Water spray (mist) to
 cool the surfaces exposed to the fire.

Not to be used

Do not use water jets (stick jets) for extinguishing fire
 since they could help to spread the flames

Special precaution

Complete combustion, with an excess of oxygen forms:
 carbon dioxide (CO₂) and water vapour.
 Partial combustion, forms also: carbon monoxide (CO),
 Soot and cracked products: aldehydes, ketones,
 Acetone, Acetaldehyde, Formaldehyde, Acrolein,
 Hydrocarbons and volatile fatty acids

Protective equipment for firefighters

Wear suitable breathing equipment, in case of risk of
 exposure to vapour or fumes.

6. Accidental release measures

After spillage / leakage

On soil

Granules spilled on the floor can cause a risk of slipping
 on smooth surfaces. recover the spilled product by
 Sweeping or suction; put it in containers to facilitate its
 Disposal.
 Dispose safely in accordance with local or national

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On water	<p>Regulations.</p> <p>Prevent the spilled material from spreading. If the material has been discharged into a stream or a Sewerage system, inform the authorities of the possible Presence of floating materials. Clean up the water surface by creaming off debris from The top. Refer to a specialist for waste disposal in a safe manner in accordance with local or national regulations.</p>
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7. Handling and storage

HANDLING

Technical measures

All pneumatic transport equipment must be electrically earthed.
 Avoid dust accumulation by use of filters in the Pneumatic transport equipment.

STOCKAGE

Storage conditions

Store at ambient temperature and at atmospheric pressure in original packaging (plastic or cardboard boxes) or in silo made of appropriate material (aluminum, stainless steel ...).
 do not store near highly flammable materials.
 Store away from heating source. avoid static electricity build up with connection to earth.
 Store in dry, well-ventilated area.
 Prolonged storage preferably out of the sun or other sources of radiation.

Storage of pallets

Two pallets may be stacked on flooring in sound condition.
 However, when the pictorial warning as shown on the top of the safety data sheet is affixed to the pallet, the pallet must never be placed either on top of or below another pallet.
 N.B.: here the term pallet includes both the pallet and its load.
 When pallets are stored in racks, it should be checked whether the pallet is fit for stacking in the concerned racks.

SPECIFIC USE(S)

No information available
 refer to point 8

8. Exposure controls / personal protection

Exposure controls

OCCUPATIONAL EXPOSURE LIMIT

Respirable dust particles:
 US (ACGIH-2007): TLV- 8h TWA: 3 mg/m³

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UK: HSE EH40/2005:
 Long-term exposure limit (8-hour TWA reference period)
 : 4 mg/m³
 (Respirable Dust)
 IRL(2002): OEL (8h): 4 mg/m³ (respirable)
 ZA (2006): OEL (8h): 5 mg/m³ (respirable particulate:
 PNOC)
 inhalable dust particles:
 US (ACGIH-2007): TLV-8h TWA: 10 mg/m³
 UK: HSE EH40/2005:
 Long-term exposure limit (8-hour TWA reference period)
 : 10 mg/m³ (Total Inhalable Dust)
 IRL(2002): OEL (8h): 10 mg/m³ (total inhalable)
 ZA (2006): OEL (8h): 10 mg/m³ (inhalable particulate:
 PNOC)

EXPOSURE CONTROLS

Occupational exposure controls
 Personal protection

Respiratory protection in case of risk of overexposure to dust, vapour or fumes (during product processing), it is recommended that a local exhaust system is placed above the conversion equipment (a fume hood) and the working area must be properly ventilated.
 Wear a suitable anti-dust respirator recommended filter type: P1

Skin and body protection

where exposure is likely, protective clothing must be worn including gloves

Eye protection

Goggles/spectacles

Other personal protection

safety non-slip shoes in areas where spills or leaks can occur.

Environmental exposure controls

unregulated

9. Physical and chemical properties

GENERAL INFORMATION

Appearance
 Physical state at 20°C
 Color
 Odor

Pellets from a diameter of 2 to 5 mm
 Solid
 Translucent, white opaque
 Odorless

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Change in physical state at 1013 hPa

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Melting range (°C)	90 to 140
Flash point (ASTM D 1929)(°C)	± 340
Auto-ignition temperature (°C)	> 350
Explosion limits (kg/m ³):	
Lower	0,015 (for polymer dust < 63 µm)
Min. ignition energy at 20°C (mJ)	63
Vapor pressure at 20°C (hPa)	None
Density, mass at 20°C (kg/m ³)	915 - 935 (ISO 1183)
Solubility in water at 20°C (mg/l)	Insoluble
PH value (concentrated product)	Not applicable
Viscosity (mm ² /s)	not applicable
OTHER INFORMATION	No information available

10. Stability and reactivity

Stability	Stable under normal operating conditions of storage, handling and use.
Hazardous reactions	dust may form an explosive mixture with air, ignited by sparks or sources of ignition.
CONDITIONS TO AVOID	Avoid contact with strong oxidizing materials and fluorine Avoid proximity or contact with flames or sparks It is recommended not to heat at a temperature higher than 320 °C
Advice to prevent explosion	Avoid dust accumulation by use of filters in the pneumatic transport equipment. Thoroughly ventilate the working place. All conductive materials must be electrically earthed. In case of pneumatic alimentation, feed the extruders by aspiration, use preferably nitrogen as carrier gas

11. Toxicological information

ACUTE TOXICITY	Polyolefins are biologically inert.
Ingestion	Because of its composition, the product should be

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LOCAL EFFECT

Inhalation

considered as practically not harmful.

Dust may cause irritation of respiratory system.
 If heated to more than 130°C, the product may form vapors or fumes which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath.

Skin contact

Because of its composition, the product should be Considered practically as not irritating.
 In contact with hot material, may cause severe thermal burns.
 Thermal decomposition products are produced at elevated temperatures and these may be irritating.

Eye contact

Because of its composition, the product should be Considered practically as not irritating fine dust may cause irritation to ocular mucous.
 Splashing of molten droplets causes ocular tissue burns.
 Thermal decomposition products are produced at elevated temperatures and these may be irritating.

SPECIFIC EFFECTS

Polyolefins are biologically inert.
 No particular preoccupation for man
 (Genotoxicity, carcinogenicity, reproductive toxicity)

12. Ecological information

Information on ecological effects

Avoid losses to the environment whenever possible.

MOBILITY

Water / air

Volatile organic compound (VOC) content of this product is < at 0.5 % weight there is a slow loss by evaporation

Soil and sediments

Because of its physico-chemical properties, the product has a low soil mobility

Water

The product, in cases of accidental discharge, floats on the surface, is insoluble and its evaporation into air is practically nil

PERSISTENCE AND DEGRADABILITY

Persistent in the environment
 Biodegradation this substance is slowly biodegradable
 BOD 5 (gO₂/g) below the detection limit

BIOACCUMULATIVE POTENTIAL

Potential bioaccumulation of the product in environment is very low

ECOTOXICITY

Because of its structure, the product should not be dangerous for aquatic life

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13. Disposal considerations

Waste disposal	According to local regulations. Authorized disposal As refuse for reprocessing Do not dispose off by means of sinks, drains or into the immediate environment May be used as fuel in suitably designed installations. Incinerate with household refuse in a municipal solid waste incinerator plan.
Industrial waste number EC	07 02 13, 16 01 19, 17 02 03 & 20 01 39: plastics
API (Association of Plastic Industry) Code	4: LDPE: low density Polyethylene

14. Transport information

Road (ADR) / Rail (RID)	Not restricted for transport. UN Number not applicable
Marine (IMO)	Not restricted for transport.
Air transport (ICAO / IATA)	Not restricted for transport.

15. Regulatory information

Labeling and Classification EC	Not classified according to EEC directives 67/548/EEC (dangerous substances) and 1999/45/EC (dangerous preparations).
Germany	
Wassergefährdungsklasse NWG:	Non-hazardous to waters
Registration	These registration entries are for polymers only. For additives, please refer to QATOFIN COMPANY who will provide the necessary certification. The product is a polymer, following the European regulation, registration On the EINECS (European Inventory of Existing Commercial Chemical Substances) inventory is not required. Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the Canadian DSL (Domestic Substances List) inventory.

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Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory.
Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on the Filipino PICCS (Philippine Inventory of Chemicals and Chemical Substances) inventory.
Listed on the swiss (liste des toxiques IGS/ IGS Giftliste 2003-2004) inventory
Listed on the People's Republic of China register: CRC-SEPA (Chemical Registration Center for Chinese State Environmental Protection Administration)

16. Other information

Training advice

The use of this product requires specific training.
The user must receive all product information in order to handle the product safely (personal protection equipment and best practice standards)

Recommended Further information

Uses Restricted to professional users
no information available

Safety data sheet conforms to the Regulation (EU) N° 1907/2006

This information applies to the PRODUCT AS SUCH and conforming to specifications of QATOFIN COMPANY.

In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear.

The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. However the revision of some data is in progress.

Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes.

The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive.

It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product.

It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product. (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

The (*) indicate the changes made with respect to the previous version.