

MATERIAL SAFETY DATA SHEET



PolymerLink

Effective Date: 30.09.2022

Review Date: 29.09.2025

PolyLink HD-614

1. Identification of substance:

- Product details:

Trade name: PolyLink HD-614

Article number: PolyLink HD-614

Application of the substance / the preparation:

Hexene Copolymer HDPE Rotational Molding

Manufacturer/Supplier: Polymerlink Ind Pvt.Ltd

Informing department:

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2. Hazards identification:

- **Information pertaining to particular dangers for man and environment:**

The molten product adheres to the skin and causes burns. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Spilled material may present a slipping hazard. Material can accumulate static charges which may cause an incendiary electrical discharge.

No adverse effects due to inhalation are expected. When heated, the vapour/fumes given off may cause respiratory tract irritation.

- **Classification system:**

This product is, according to EEC directive 1999/45, 67/548 and following amendments, not classified as hazardous.

3. Composition/Data on components:

- **Chemical characterization / CAS number designation:**

9002-88-4 *Polyethylene*, polymers

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- **Description:**
High Density Polyethylene
Colorants <1%

4. First aid measures:

- **General information:**
At room temperature the product is neither an irritant nor gives off hazardous vapours.
- **After inhalation:**
In case of excessive inhalation of fumes move the person to fresh air. Call for medical help. Keep person warm, if necessary, give mouth-to-mouth resuscitation, or artificial respiration.
- **After skin contact:**
After contact with the molten product, cool rapidly with cold water. Do not pull solidified product away from the skin.
Seek immediate medical advice.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a medical doctor.
- **After swallowing:**
No specific measures have to be taken if the product is swallowed. Get medical advice if necessary.

5. Firefighting measures:

- **Suitable extinguishing agents:**
Water fog
Foam
Carbon dioxide
Chemical powder
- **Inappropriate extinguishing agents:**
Straight streams of water
- **Firefighting instructions:**
Assure an extended cooling down period to prevent re-ignition. Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-

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fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

- **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire it can release:
Water (H₂O), carbon dioxide (CO₂), and when lacking oxygen (O₂), carbon monoxide (CO).
The products of the burning are dangerous.
The formation of hydrocarbons, vinyl acetate, acetic acid and aldehydes are possible in the initial stages of fire (especially in between 400°C and 700°C).
- **Protective equipment:**
Put on breathing apparatus (see section 8)
- **Additional information:**

6. Accidental release measures:

- **Person-related safety precautions:**
No specific measures are necessary. See point 8.
- **Measures for environmental protection:**
Prevent entry into waterways, sewers, basements or confined areas. See points 12 and 13.
- **Measures for cleaning/collecting:**
Small spills: put into a labeled container and provide safe disposal.
Large spills: act as during a limited release.
Recycle product or dispose properly. See point 13.
- **Additional information:**
Collect spilled polymer. Good housekeeping must be maintained to avoid potential slipping problem.

7. Handling and storage:

- **Handling:**
Avoid elevated temperatures for prolonged periods of time. Prevent small spills and leakage to avoid slip hazard. Avoid conditions which create dust. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Material can accumulate static charges which may cause an electrical spark (ignition source). Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight and temperature have an

influence on the way the product behaves during storage and handling. Special attention should be paid to avoid inappropriate stacking of palletized bags or other package units. Indeed, polymer products may be dimensionally unstable under certain conditions. Avoid conditions generating heat during transfer operations.

- **Storage:**
- **Requirements to be met by storerooms and containers:**
Take precautionary measures to prevent the formation of static electricity.
Do not smoke.
Ground equipment electrically.
Electric safety equipment.
Open flames prohibited.
Store the products in Bags; Hopper Cars; Bags; Boxes; Drums; Octatainer; Silos.
- **Information about storage in one common storage facility:**
Not required.
- **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store container in a well-ventilated position.
Store under dry conditions.
Storage containers should be stacked at a maximum of two octatainers high.

8. Exposure controls and personal protection :

- **Components with limit values that require monitoring at the workplace:**
Not required.
- **Additional exposure limit values for possible processing dangers :**
For dusty conditions, ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m³ (inhalable particles), 3 mg/m³ (respirable particles).

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

- **Additional information:**
See points 7,9.
- **Personal protective equipment:**
- **General protective and hygienic measures:**

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Do not eat or drink while working.

No smoking.

Provide system for collecting the vapors which are created during the working process.

- **Breathing equipment:**

If appropriate ventilation is not available use face masks when handling the molten product. Types of respirators to be considered for this material include: Half-face filter respirator European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

- **Protection of hands:**

If product is hot, thermally protective gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. CEN standards EN 420 and EN 374 provide general requirements and lists of glove types.

- **Eye protection:**

Safety goggles recommended during refilling.

- **Body protection:**

Normal overalls

Safety boots and shoes

9. Physical and chemical properties:

- **General information**

Form : Powder

Colour : Various colour

Melting point / Melting range : 110°C to 130°C

Boiling point / Boiling range : N/A

Flash point : >300°C estimated

Ignition limit : (% vol. gm/m³ in air) LEL : N/D UEL : N/D

Danger of explosion : see point 7

Density : < 1 g/cm³

Solubility in / Miscibility with: negligible

Water

Additional information: soluble in boiling, aromatic chlorinated solvents

10. Stability and reactivity:

- **Thermal decomposition:**

The product is stable at normal handling – and storage conditions

- **Materials to be avoided**

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- Strong oxidation agent
- **Dangerous reactivity:**
No dangerous reaction known
- **Dangerous product of decomposition:**
Material does not decompose at ambient temperatures.

11. Toxicological information:

- **Acute toxicity:**

<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
INHALATION	
Toxicity	Minimally toxic. Based on test data for structurally similar materials.
Irritation	Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.
INGESTION	
Toxicity	Low oral toxicity. High Density Polyethylene: LD50, oral (rat):>5000 mg/kg
Skin	
Toxicity	Minimally toxic. Based on test data for structurally similar materials.
Irritation	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Chronic/Other Effects:**
Dust may be irritating to the eyes and respiratory tract.
Elevated temperatures or mechanical action may form vapours, mists or fumes which may be irritating to the eyes and respiratory tract.
Contains additives that are encapsulated in the polymer. Under normal conditions of processing and use the encapsulated additives are not expected to pose a health hazard
- **Form:**
Powder

12. Ecological information:

- **Information about elimination (persistence and degradability):**

Biodegradation:

Material -- Expected to be persistent.

Hydrolysis:

Material -- Transformation due to hydrolysis not expected to be significant.

Photolysis:

Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation:

Material -- Transformation due to atmospheric oxidation not expected to be significant.

- **Behaviour in environmental systems:**

Not expected to be harmful to aquatic organisms.

Not expected to be harmful to terrestrial organisms.

- **Mobility and bioaccumulation potential:**

Potential to bioaccumulate is low. The material has a low solubility and floats and it is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

- **General notes:**

The product is not toxic, small particles can have physical effects on water and soil organisms.

Ventilation of general processing area is recommended to avoid accumulation of organic volatiles from heating/processing of polymers.

13. Disposal considerations:

- **Product:**

Recommendation

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

- **European waste catalogue:**

070213

- **Uncleaned packaging:**

Recommendations

Disposal must be done according to official regulations.

14. Transport information:

According to national and international guidelines, which regulate the road-, rail-, sea (IMDG)- and air (IATA)- transport, this product is not regulated.

15. Regulatory information:

- **Designation according to EC guidelines:**
The material is not subjected to classification according to EC lists and other sources of literature known to us. Observe the normal safety regulations when handling chemicals.
 - **National regulations:**
Complies with the following national/regional chemical inventory requirements: TSCA, EINECS.
 - **Further regulations, restrictions and prohibition regulations:**
Generally, all national regulations regarding this product type apply.
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16. Other information:

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics.

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