

Last revised date : 2023-12-07
MSDS No. :

Safety Data Sheet(SDS)

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

- 1) Product identifier : LDPE(LB5000)
- 2) Relevant identified uses of the substance or mixture and uses advised against
 - Relevant identified uses
 - 29.Polymer preparations and compounds
 - Uses advised against
 - Any use of the product other than for its identified uses is prohibited.
- 3) Supplier information
 - Company name [Manufacture]
 - Company : LG Chem, Ltd.
 - Address : 55, Yeosusandan 2-ro, Yeosu-si, Jeollanam-do, Republic of Korea
 - Emergency number : Not applicable

2. HAZARD IDENTIFICATION

- 1) Hazard classification
 - Not applicable
- 2) Allocation label elements
 - Hazard pictograms
 - Signal word
 - NONE
 - Hazard statements
 - No data available
 - Precautionary statements

No data available

3) Other hazards

- No data available

○ Product NFPA Level

Health	Flammability	Reactivity
1	1	0

(※ 0 = Stable , 1 = Low , 2 = Medium , 3 = High , 4 = Very High)

3. Composition/Information on ingredients

Components	Common name	CAS No.	PCT(wt%)
Polyethylene	Polyethylene	9002-88-4	100

4. FIRST AID MEASURES

1) Following eye contact

- Get medical aid immediately.
- In case of contact with material, immediately flush eyes with running water for at least 15 minutes.

2) Following skin contact

- In case of burns, immediately cool the affected area with cold water for as long as possible, and do not remove clothing adhering to the skin.
- In case of contact with material, flush skin with running water

3) Following inhalation

- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.
- If exposed to excessive amounts of dust or fumes, remove to fresh air and seek medical attention if cough or other symptoms develop.
- Move to fresh air.
- Seek immediate medial assistance.

4) Following ingestion

- Get medical aid immediately.
- If unconscious but breathing, never give anything by mouth.

5) Advice to physician

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

1) Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media
 - Large fire: Water spray/fog, regular foam (Suitable extinguishing media).
 - Small fire: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2 (Suitable extinguishing media).
- Unsuitable extinguishing media
 - High-pressure water (risk of fire spread).

2) Special hazards arising from the substance or mixture

- Pyrolytic product
 - In case of fire, carbon monoxide and/or carbon dioxide and other harmful substances may be formed.
 - During burning, irritating and highly toxic gases may be produced by thermal decomposition or combustion.
- Risk of fire and explosion
 - Containers may explode when heated.
 - Fire may produce irritating and/or toxic gases.
 - May ignited from heat, friction or contamination.
 - Possible explosion due to dust
 - Some may burn, but not rapidly.
- Other
 - May cause toxic effects if inhaled.

3) Special protective equipment for firefighters

- Contact may cause burns to skin and eyes.
- Dike fire-control water for later disposal; do not scatter the material.
- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Move containers from fire area if you can do it without risk.
- Only properly trained personnel should engage in firefighting.
- Runoff may cause pollution.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment

- Do not enter areas which have less than 18% oxygen in the atmosphere, without respirator or air supplied mask.
- Do not touch or go near exposed material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

- Please note that materials and conditions to be avoided.
- Prevent dust cloud.
- Risk of slipping in case of material spillage.
- Stop leak if you can do it without risk.
- Ventilate the contaminated area.

2) Environmental precautions

- Prevent entry into waterways, sewers, ground water, soil and confined spaces.

3) For cleaning up

- Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.
- Large spill: Collect and dispose of with appropriate tools.
- SMALL SPILL : Wash with plenty of water or Collect with appropriate tools, and placed in suitable containers for disposal.
- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

7. HANDLING AND STORAGE

1) Precautions for safe handling

- Be careful as dust generation or friction may cause an explosion.
- CAUTION: High temperature.
- Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- Check oxygen content before entering area.
- Handling refer to engineering control/personal protection section.
- Please note that materials and conditions to be avoided.
- Use adequate machine for prevention when package handling.
- Wash thoroughly after handling.
- Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)

2) Conditions for safe storage (including any incompatibilities)

- Choose a place that can be protected from strong oxidizers and acid.
- Please note that materials and conditions to be avoided.
- Store containers: AVOID the place where can be damage and contamination.
- Store in a closed container.
- Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources
- Store in a dry place. Store in a closed container.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1) Chemical exposure limits, Biological exposure standard

Components	Occupational exposure limits	ACGIH	Biological standard
Polyethylene	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable

* The exposure standard for other dusts according to Ministry of Employment and Labor Notice No. 2020-48 is TWA: 10mg/m³.

2) Appropriate engineering controls

- Make sure you have the right exhaust and ventilation in the workplace.
- Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

3) Personal protection equipment

○ Respiratory protection

- If there is a direct contact or exposure, wear a certified appropriate respiratory protection.
- In case of insufficient oxygen (<19.6%), wear a supplied air mask or self-contained respirator.
- In the case of particulate matter, the following respiratory protection is recommended: - Facepiece filtering dust mask or air filtering dust mask (high-efficiency particulate filter material) or electric fan attached dust mask (filter material for dust, mist, fume)
- Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.

○ Eye protection

- Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Provide emergency showers and eyewash.
- Wear an appropriate eye protection.
- Wear suitable protective goggles and face shields.

○ Hand protection

- Wear Non-moisture permeable chemical resistance protective gloves(latex, nitrile rubber, PVC) for prevent skin contact.
- Wear protective gloves made of appropriate material considering the physical and chemical properties of chemicals.
- Wear suitable protective gloves.

○ Body protection

- Wear appropriate protective clothing considering the physical and chemical properties of chemicals.
- Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	No data available
Physical state	solid
Colour	White or Milky White
Odour	Odorless
Odour threshold	No data available
pH	No data available
Melting point/freezing point	85 ~ 140 °C
Initial boiling point and boiling range	No data available

Flash point	341 °C
Evaporation rate	No data available
Flammability(solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Solubility(ies)	Insolubility
Vapour density	No data available
Relative density	0.910~0.925
n-octanol/water partition coefficient	No data available
Auto ignition temperature	330-410 °C
Decomposition temperature	No data available
Viscosity	No data available
Molecular weight(mass)	(-CH ₂ -CH ₂ -)1,100~3,500 / 31,000-100,000g/mol

10. STABILITY AND REACTIVITY

- 1) Stability and hazardous reactivity
 - Fire may produce irritating and/or toxic gases.
 - Some may burn, but not rapidly.
 - Stable under normal temperatures and pressures.
- 2) Conditions to avoid
 - Ignition source(heat, spark, flame, etc.).
- 3) Incompatible materials
 - Combustibles.
 - Irritating and/or toxic gas.
- 4) Hazardous decomposition products
 - No data available

11. TOXICOLOGICAL INFORMATION

- 1) Exposure route information
 - Inhalation
 - After inhalation: No data
 - Skin Contact
 - Following skin contact: No data
 - Eye Contact

- After eye contact: No data

- Ingestion

- After ingestion: No data

2) Health hazard information

- Acute toxicity

- Acute toxicity(Oral)

- LD50> 8000 mg / kg experimental species: Rat, Source: RTECS

- Acute toxicity(Dermal)

- No data available

- Acute toxicity(Inhalation:Gases)

- No data available

- Acute toxicity(Inhalation:Vapours)

- No data available

- Acute toxicity(Inhalation:Dust/mist)

- No data available

- Skin corrosion/irritation

- No data available

- Serious eye damage/eye irritation

- No data available

- Respiratory sensitization

- No data available

- Skin sensitization

- No data available

- Carcinogenicity

- 3 (IARC), Source: IARC

- Germ cell mutagenicity

- No data available

- Reproductive toxicity

- No data available

- Specific target organ toxicity single exposure

- No data available

- Specific target organ toxicity repeated exposure

- No data available

- Aspiration hazard

No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

- Fish

No data available

- Crustacea

No data available

- Aquatic Algae

No data available

2) Persistence and degradation

- n-octanol water partition coefficient

No data available

- Degradation

No data available

- Biodegradation

No data available

3) Bioaccumulative potential

No data available

4) Mobility in soil

No data available

5) Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Recyclables must be collected in portable bins and disposed of legally according to national regulations.

2) Precautions (including disposal of contaminated container of package)

- Avoid direct spillage to rivers, lakes, soil and drains.
- Discuss it according to waste regulation.
- Empty containers may explode and residues can be ignited when pressured, cut, weld, heated.
- Empty containers may rupture when pressured.

- Empty containers recycled under environmental laws.
- Use a certified waste disposal company.
- Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)

14. TRANSPORT INFORMATION

- 1) UN No. : Not applicable
 - 2) Proper shipping name : Not applicable
 - 3) Class or division : Not applicable
 - 4) Packing group : Not applicable
 - 5) Marine pollutant : Not applicable
 - 6) Special safety response for transportation or transportation measure :
 - Emergency measures in case of fire : Not applicable
 - Emergency measures in the effluent : Not applicable
- ADR
 - Tunnel restriction code : Not applicable
 - IMDG
 - Marine pollutant : Not applicable
 - Air transport(IATA)
 - UN No. : Not applicable
 - Proper shipping name : Not applicable
 - Class or division : Not applicable
 - Packing group : Not applicable

15. REGULATORY INFORMATION

- 1) Occupational Safety and Health Act in Korea
 - Not applicable
- 2) Toxic Chemical Control Act in Korea
 - Not applicable
- 3) Safety Control of Dangerous Substances Act in Korea
 - Not applicable
- 4) Wastes Control Act in Korea

Ordinary Industrial Waste

-In case of disposal, it must be disposed of in accordance with Article 13 of the Waste Management Act.

5) Other regulations in KOREA and Abroad regulations

- ETC regulation
 - Not applicable
 - Not applicable
- Act on the registration and evaluation of chemicals
 - Existing Commercial Chemical Substances

16. OTHER INFORMATION

1) Reference

- HSDB
- ICSC
- Kochetkova, 1971
- Ministry of Employment and Labor
- Ministry of Environment
- RTECS

2) Print date : 2022-06-23

3) Revision date

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- Last revised history :

4) Other