Last revised date : 2021 - 07 - 14
MSDS No. : AA00566 - 0000000197

Safety Data Sheet(SDS)

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

1) Product identifier : LDPE(LF2003N)

2) Relevant identified uses of the substance or mixture and uses advised against

○ Relevant identified uses

48.Others/Coating, Injection Molding, Film, Wire Coating, Packaging

○ Uses advised against

Do not use other purposes.

3) Supplier information

○ Manufacturer

Company : LG Chem, Ltd.
Address : 55, Yeosusandan 2 - ro, Yeosu - si, Jeollanam - do, Republic of Korea

Emergency number : +82)061 - 680 - 1321

○ Seller

Company : LG Chem, Ltd.
Address : 55, Yeosusandan 2 - ro, Yeosu - si, Jeollanam - do, Republic of Korea

Emergency number : +82)061 - 680 - 1321

2. HAZARD IDENTIFICATION

1) Hazard classification

- Specific target organ toxicity single exposure Category 3(Respiratory tract irritation)

2) Allocation label elements

Hazard pictograms

Signal word

- WARNING

Hazard statements

H335 May cause respiratory irritation

Precautionary statements

- Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a wellventilated area.

- Response

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 If you feel uncomfortable, consult a medical institution/doctor.

- Storage

P403+P233 Store in a wellventilated place. Keep container tightly closed.
P405 Store locked up.

- Disposal

P501 Dispose of contents/container to …

3) Other hazards자료없음

○ Product NFPA Level : Health, Flamm abliity, Reactivity = 0

(※ 0 = Insufficient , 1 = Slightly , 2 = ordinary , 3 = Highness , 4 = Very high)

Chemical Name	Health	Flamm abliity	Reactivity
Polyethylene	1	1	0

3. Composition/Information on ingredients

Components	Common name	CAS No.	PCT(wt%)
Polyethylene	Polyethylene	9002 - 88 - 4	99.9

4. FIRST AID MEASURES

1) Following eye contact
- Seek immediate medial assistance.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

2) Following skin contact
- For minor skin contact, avoid spreading material on unaffected skin.
- Seek immediate medial assistance.

- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Remove and isolate contaminated clothing and shoes.

3) Following inhalation
- If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
- Keep victim warm and quiet.
- Move to fresh air.
- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.

4) Following ingestion
- Seek immediate medial assistance.

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
- CO_2.
- Dry chemical.
- Water spray.
- Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
- Use dry sand or earth to smother fire.

○ Unsuitable extinguishing media
- Direct water.

3) Special protective equipment for firefighters
- Dike fire - control water for later disposal; do not scatter the material.
- Substance may be transported in a molten form.
- Move containers from fire area if you can do it without risk.
- Evacuate area and fight fire from a safe distance.
- Fire involving Tanks: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Clean up spills immediately, observing precautions in Protective Equipment section.
- Stop leak if you can do it without risk.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Cover with plastic sheet to prevent spreading.
- Please note that materials and conditions to be avoided.

2) Environmental precautions
- Prevent entry into waterways, sewers, basements or confined areas.

3) For cleaning up
- Absorb or cover with dry earth, sand or other non - combustible material and transfer to containers.
- Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
- Absorb the liquid and scrub the area with detergent and water.

7. HANDLING AND STORAGE

1) Precautions for safe handling
- Avoid breathing vapors from heated material.
- Loosen closure cautiously before opening.
- Handling refer to engineering control/personal protection section.
- Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
- Do not enter storage area unless adequately ventilated.
- Use care in handling/storage.
- Please note that materials and conditions to be avoided.
- Use only in a well - ventilated area.

2) Conditions for safe storage (including any incompatibilities)
- Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1) Chemical exposure limits, Biological exposure standard

Components	Occupational exposure	ACGIH	Biological standard
Polyethylene	Not applicable	Not applicable	Not applicable

2) Appropriate engineering controls
- If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

3) Personal protection equipment

○ Respiratory protection
- If high frequency of use or exposure, wear air respirator.
- Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.

○ Eye protection
- Wear suitable protective goggles and face shields.

○ Hand protection
- Wear suitable protective gloves.

○ Body protection
- 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	100~125℃
Initial boiling point and boiling range	No data available
Flash point	No data available
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	349℃
Decomposition temperature	No data available
Viscosity	No data available
Molecular weight(mass)	(- CH2 - CH2 -)1,100~3,500 / 31,000 - 100,000g/mol

10. STABILITY AND REACTIVITY

1) Stability and hazardous reactivity
- Containers may explode when heated.
- Non - combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Some may burn but none ignite readily.
- Fire may produce irritating, corrosive and/or toxic gases.

2) Conditions to avoid
- Ignition source(heat, spark, flame, etc.).

3) Incompatible materials
- Combustibles, reducing material.

4) Hazardous decomposition products
- Corrosive/toxic fume.
- Irritating, corrosive and/or toxic gas.

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) PRODUCT : Not classified
- Polyethylene : LD50> 8000 ㎎ / ㎏ experimental species: Rat, Source: RTECS

● Acute toxicity(Dermal) PRODUCT : Not classified
- Polyethylene : No data available

● Acute toxicity(Inhalation:Gases) PRODUCT : Not classified
- Polyethylene : No data available

● Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
- Polyethylene : No data available

● Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified

- Polyethylene : LC50 75.5 ㎎ / ℓ 30 min experimental species: Rat, Source: RTECS

○ Skin corrosion/irritation PRODUCT : Not classified

- Polyethylene : No data available

○ Serious eye damage/eye irritation PRODUCT : Not classified

- Polyethylene : No data available

○ Respiratory sensitization PRODUCT : Not classified

- Polyethylene : No data available

○ Skin sensitization PRODUCT : Not classified

- Polyethylene : No data available

○ Carcinogenicity PRODUCT : Not classified

- Polyethylene : 3 ()

○ Germ cell mutagenicity PRODUCT : Not classified

- Polyethylene : No data available

○ Reproductive toxicity PRODUCT : Not classified

- Polyethylene : No data available

○ Specific target organ toxicity single exposure PRODUCT : Category 3(Respiratory tract irritation)

- Polyethylene : If breathing dust causes inflammation of the lungs in laboratory animals (rats)., Source: Kochetkova, 1971

○ Specific target organ toxicity repeated exposure PRODUCT : Not classified

- Polyethylene : No data available

○ Aspiration hazard PRODUCT : Not classified

- Polyethylene : No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

● Fish>PRODUCT : Not classified

- Polyethylene : No data available

● Crustacea>PRODUCT : Not classified

- Polyethylene : No data available

● Aquatic algae>PRODUCT : Not classified

- Polyethylene : No data available

2) Persistence and degradation

● n - octanol water partition coefficient>PRODUCT : Not classified

- Polyethylene : No data available

● Degradation>PRODUCT : Not classified

- Polyethylene : No data available

● Biodegradation>PRODUCT : Not classified

- Polyethylene : No data available

3) Bioaccumulative potential>PRODUCT : Not classified

- Polyethylene : No data available

4) Mobility in soil>PRODUCT : Not classified

- Polyethylene : No data available

5) Other adverse effects>PRODUCT : Not classified

- Polyethylene : No data available

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Every commercial waste producer shall either treat wastes generated from his/her place of business by him/herself or commission the treatment of such wastes to a person who has license for a waste treatment business under Article 26(3), a person who recycles of such wastes under Article 44(2), a person who has installed and operates a waste disposal facility under Article 4 or 5, a person who has completed the registration of a business of discharging wastes into the sea under Article 18 of the Marine Environment Management Act.

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

- Do not allow spill material to enter sewers, storn water drains, soil, etc.

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 PRODUCT : Substance exposure limits

Not established

2) Toxic Chemical Control Act in Korea PRODUCT : Pollutant release and transfer register substances

Not established

3) Safety Control of Dangerous Substances Act in Korea

Not established

4) Wastes Control Act in Korea PRODUCT : Designated waste

Not established

5) Other regulations in KOREA and Abroad regulations

● Other regulations

Not established

Not established

● PERSISTENT ORGANIC POLLUTANTS CONTROL ACT

Not established

● Act on the registration and evaluation of chemicals PRODUCT : Existing Commercial Chemical Substances

- Polyethylene : Existing Commercial Chemical Substances

16. OTHER INFORMATION

1) Reference

- ECHA
- EHCA
- Kochetkova, 1971
- National Institute for Occupational Safety and Health GLP toxicity studies, 2017
- RTECS
- 고용노동부
- 환경부

2) Print date : 2021 - 07 - 14

3) Revision date

○ Revised date count : 0

○ Last revised date : 2021 - 07 - 14

○ Last revised history :

4) Other