

Last revised date : 2022-06-17

PCN No. :

Safety Data Sheet(SDS)

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

- 1) Product identifier : HDPE ME9180E PELLET HALF-FINISHED
- 2) Relevant identified uses of the substance or mixture and uses advised against
 - Relevant identified uses
 - 1.Feed materials, Intermediates
 - Uses advised against
- 3) Supplier information
 - Company name [Manufacture]
Company : LG Chem, Ltd.
Address : 58, Yeosusandan 4-ro, Yeosu-si, Jeollanam-do, Republic of Korea

Emergency number : +82-61-689-3470

2. HAZARD IDENTIFICATION

- 1) Hazard classification
Not applicable
- 2) Allocation label elements
Hazard pictograms

Signal word
- NONE

Hazard statements

No data available

Precautionary statements

Not applicable

3) Other hazards

○ Product NFPA Level

| Health | Flamm ability | Reactivity |
|--------|---------------|------------|
| 2 | 1 | 0 |

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

3. Composition/Information on ingredients

| Components | EU REACH No. | CAS No. | PCT(wt%) |
|--------------|--------------|-----------|----------|
| Polyethylene | | 9002-88-4 | >99 |
| Secret | | | 0~1 |

4. FIRST AID MEASURES

1) Following eye contact

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

2) Following skin contact

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

3) Following inhalation

- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.
- 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.

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
 - CO₂.
 - Dry chemical.
 - Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
 - Use dry sand or earth to smother fire.
 - Water spray.
- Unsuitable extinguishing media
 - Direct water.

2) Special hazards arising from the substance or mixture

- Pyrolytic product
 - Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Risk of fire and explosion
 - Containers may explode when heated.
 - Some may burn but none ignite readily.
- Other
 - No data available

3) Special protective equipment for firefighters

- Dike fire-control water for later disposal; do not scatter the material.
- Evacuate area and fight fire from a safe distance.
- 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.
- Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- 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: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Move containers from fire area if you can do it without risk.
- Substance may be transported in a molten form.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment

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

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.
- Do not enter storage area unless adequately ventilated.
- Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
- Handling refer to engineering control/personal protection section.
- Loosen closure cautiously before opening.
- Please note that materials and conditions to be avoided.
- Use care in handling/storage.
- 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 limits | ACGIH | Biological standard |
|--------------|--|--|---------------------|
| Polyethylene | TWA : Not applicable STEL : Not applicable | TWA : Not applicable STEL : Not applicable | Not applicable |
| Secret | TWA : Not applicable STEL : Not applicable | TWA : Not applicable STEL : 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 | Solid(Pellets) |
| Physical state | Solid |
| Colour | White |
| Odour | Oderless |
| Odour threshold | Not available |
| pH | No data available |
| Melting point/freezing point | 50-150°C |
| Initial boiling point and boiling range | No data available |
| Flash point | 400°C |
| Evaporation rate | Not available |
| Flammability(solid, gas) | >400°C(Ingition temperature) |
| Upper/lower flammability or explosive limits | 30 g / m3 (lower explosive concentration with an average particle size of 61.6) |
| Vapour pressure | Not available |
| Solubility(ies) | Insoluble |
| Vapour density | Not available |
| Relative density | 0.9 -1.0 |
| n-octanol/water partition coefficient | Insoluble |
| Auto ignition temperature | >300°C |

| | |
|---------------------------|--------------------|
| Decomposition temperature | >250°C |
| Viscosity | No data available |
| Molecular weight(mass) | 10,000 ~ 1,000,000 |

10. STABILITY AND REACTIVITY

1) Stability and hazardous reactivity

- Containers may explode when heated.
- Fire may produce irritating, corrosive and/or toxic gases.
- 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.

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
 - May cause respiratory irritation
- Skin Contact
 - Not applicable
- Eye Contact
 - Not applicable
- Ingestion
 - Not applicable

2) Health hazard information

- Acute toxicity
 - Acute toxicity(Oral) PRODUCT : Not classified
 - Polyethylene : LD50> 8000 mg / kg experimental species: Rat, Source: RTECS
 - Secret : LD50> 10000 mg / kg experimental species: Rat
 - Acute toxicity(Dermal) PRODUCT : Not classified

- Polyethylene : No data available
- Secret : No data available
- Acute toxicity(Inhalation:Gases) PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified
 - Polyethylene : LC50 75.5 mg / ℓ 30 min experimental species: Rat, Source: RTECS
 - Secret : No data available
- Skin corrosion/irritation PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Serious eye damage/eye irritation PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Respiratory sensitization PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Skin sensitization PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Carcinogenicity PRODUCT : Not classified
 - Polyethylene : 3 (IARC), Source: IARC
 - Secret : A4 Stearates (ACGHI), Source: ACGHI
- Germ cell mutagenicity PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Reproductive toxicity PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Specific target organ toxicity single exposure PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available

- Specific target organ toxicity repeated exposure PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Aspiration hazard PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

- Fish>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : LC50 0.00000000113 mg / ℓ 96 hr (), Source: ECOSAR
- Crustacea>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : LC50 0.00000000284 mg / ℓ 48 hr Other (Daphnid), Source: ECOSAR
- Aquatic algae>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : EC50 0.00000000362 mg / ℓ 96 hr other (Green algae), Source: ECOSAR

2) Persistence and degradation

- n-octanol water partition coefficient>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : 14.34 log Kow ((estimated))
- Degradation>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available
- Biodegradation>PRODUCT : Not classified
 - Polyethylene : No data available
 - Secret : No data available

3) Bioaccumulative potential>PRODUCT : Not classified

- Polyethylene : No data available
- Secret : 3.162 (), Source: QSAR

4) Mobility in soil>PRODUCT : Not classified

- Polyethylene : No data available
- Secret : No data available

5) Other adverse effects>PRODUCT : Not classified

- Polyethylene : No data available
- Secret : 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, storm 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

- Global Inventory - EU. European Inventory of Existing Commercial Chemical Substances (EINECS)

- Secret

- ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances (L286, Vol. 52, 31 Octobe

Not applicable

- ETC regulation - EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17, 24 November 2010

Not applicable

- ETC regulation - EU. Regulation No 850/2004 prohibiting and restricting persistent organic pollutants (POPs), as last amended by Regulation No 51

Not applicable

- ETC regulation - EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances (Reg 1907/2006

Not applicable

- ETC regulation - EU. GHS Classification. CLP Reg. No 1272/2008 of 16 Dec 2008, Annex VI, Table 3.1, List of harmonized classification & labelling

Not applicable

- ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances (L286, Vol. 52, 31 October 2009

Not applicable

- ETC regulation - EU. REACH, Annex XIV, Substances Subject to Authorization, as amended through Regulation No 895/2014 of 19 August 2014

Not applicable

- ETC regulation - EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, OJ (L 197)1, 24 July 2012

Not applicable

- ETC regulation - EU. Regulation EU No. 649/2012, Annex V, Chemicals and articles subject to export ban, OJ L 201, p. 60, 27 July 2012

Not applicable

- ETC regulation - EU. Annexes I, II (F-gases subject to emission limits/reporting), IV (GWP for mixture calculations), Reg. 517/2014/EU on fluor

Not applicable

16. OTHER INFORMATION

1) Reference

- ECHA Registered substances
- ECHA registration materials

- ECOSAR
- EU CLP
- IUCLID
- International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)
- OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)
- QSAR
- Quantitative Structure Activity Relation(QSAR)
- RTECS
- SIDS

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3) Revision date

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- Last revised history :

4) Other