

Last revised date : 2022-07-19

Safety Data Sheet(SDS)

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

- 1) Product identifier : HDPE ME2500SN PELLET HALF-FINISHED
- 2) Relevant identified uses of the substance or mixture and uses advised against
 - Relevant identified uses
 - 48.Others (Raw Material of Polyethylene Product Goods)
 - 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 : +82-061-689-3470

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	Common name	CAS No.	PCT(wt%)
Polyethylene	Polyethylene	9002-88-4	>99
Secret			0~1

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

- Get medical aid immediately.
- In case of contact with material, immediately flush skin with running water for at least 15 minutes.
- Launder contaminated clothing and shoes before re-use.
- Remove and isolate contaminated clothing and shoes.

3) Following inhalation

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

- Do not apply drugs of the adrenaline ephedrine group.

- 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 (Unsuitable extinguishing media).

2) Special hazards arising from the substance or mixture

- Pyrolytic product
 - No data available
- 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.
 - Some may burn but none ignite readily.
- Other
 - May cause toxic effects if inhaled.

3) Special protective equipment for firefighters

- 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.
- 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.
- Runoff may cause pollution.
- Substance may be transported hot.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment

- Do not touch or walk through spilled 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.
- Stop leak if you can do it without risk.
- Ventilate the contaminated area.

2) Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

3) For cleaning up

- Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.
- Small Spill: Flush area with flooding quantities of water.
- 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

- CAUTION: High temperature.
- Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- 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.
- Drum Handling: Must work at safe place., Loading more than 3 stack is prohibited.
- Store containers: AVOID the place where can be damage and contamination.
- Store in a cool/low-temperature, well-ventilated {dry} place {away from heat and ignition sources}

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

- 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.
- Eye protection
 - Provide emergency showers and eyewash.
 - Wear an appropriate security diameter.
- Hand protection
 - Wear safety gloves for chemicals.
- Body protection
 - Wear a protective gloves/protective clothes/security diameter/security surface/earplugs.
 - 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 and/or toxic gases.
 - May cause toxic effects if inhaled.
 - Some may burn but none ignite readily.
 - 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
 - Not applicable
 - 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(ATEmix = 75.796mg/L)
 - 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 : 2.44 (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)

- Discuss it according to waste regulation.
- Do not allow spill material to enter sewers, storm water drains, soil, etc.
- 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

- Global Inventory - USA. Toxic Substances Control Act (TSCA) Chemical Substances Inventory (12 April 2018)

- Polyethylene

- Secret

- ETC regulation - EPCRA (SARA Title III) Section 302 Extremely Hazardous Substance (EHS) (40 CFR 355, Appendix A)

Not applicable

- ETC regulation - OSHA Hazard Communication Standard: On One of the Floor Lists of the OSHA HCS (29 CFR 1910.1200)

Not applicable

- ETC regulation - EPCRA (SARA Title III) Section 313 Toxic Chemical Release Inventory (TRI) Reporting for RY 2013 (as amended Sep. 30, 2014)

Not applicable

- ETC regulation - CERCLA Hazardous Substances [other than radionuclides] (40 CFR 302.4) (as amended by 75 FR 78918, Dec. 17, 2010)

Not applicable

- ETC regulation - RCRA Appendix VII: Hazardous Wastes (40 CFR 261, App. VII, Basis for Listing Hazardous Waste)

Not applicable

- ETC regulation - CERCLA. Radionuclides and their Reportable Quantities (40 CFR 302.4, App. B)

Not applicable

- ETC regulation - RCRA D List of Characteristic Hazardous Wastes (40 CFR 261.21-24)

Not applicable

- ETC regulation - RCRA F List of Hazardous Wastes from Non-Specific Sources (40 CFR 261.31(a)) (as amended by 73 FR 31756, June 4, 2008)

Not applicable

- ETC regulation - RCRA K List of Hazardous Wastes from Specific Sources (40 CFR 261.32)

Not applicable

- ETC regulation - RCRA P List of Hazardous Wastes (40 CFR 261.33(e) and 40 CFR 302 [CERCLA])

Not applicable

- ETC regulation - RCRA U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA], as amended 75 FR 78918, Dec 17, 2010

Not applicable

- ETC regulation - DOT Hazardous Materials Table Listings (49 CFR 172.101, as amended through October 31, 2013)

Not applicable

- ETC regulation - EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Respo

Not applicable

16. OTHER INFORMATION

1) Reference

- ChemIDplus
- ECHA Registered substances
- ECHA 등록자료
- ECOSAR
- EPA
- IUCLID
- International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)
- Modified sturm test, GLP, IUCLID
- OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)
- OSHA
- QSAR
- Quantitative Structure Activity Relation(QSAR)
- RTECS
- SIDS
- THOMSON

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3) Revision date

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○ Last revised history :

4) Other