

Last revised date : 2022-07-16

PCN No. :

Safety Data Sheet(SDS)

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

1) Product identifier : PP M1400

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

○ Relevant identified uses

29.Polymer preparations and compounds

○ Uses advised against

Prohibited for use other than recommended

3) Supplier information

○ Company name [Manufacture]

Company : LG Chem, Ltd.

Address : 54, Dokgot 1-ro, Daesan-eup, Seosan-si, Chungcheongnam-do, Republic of Korea

Emergency number : 82-41-661-2626

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
0	0	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%)
Ethylene propylene copolymer		9010-79-1	99-100

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

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

3) Following inhalation

- Seek immediate medical assistance.
- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.
- Move to fresh air.

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
 - Fire may produce irritating and/or toxic gases.
 - Some may burn but none ignite readily.
 - Containers may explode when heated.
 - May ignited from heat, friction or contamination.
- Other
 - Some liquids produce vapors that may cause dizziness or suffocation.
 - May cause toxic effects if inhaled.

3) Special protective equipment for firefighters

- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
- Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Dike fire-control water for later disposal; do not scatter the material.
- Contact may cause burns to skin and eyes.
- Runoff may cause pollution.
- Substance may be transported hot.
- Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment

- Do not enter areas which have more than 23.5% oxygen in the atmosphere, without respirator or air supplied mask.
- Prevent dust cloud.

- Do not touch or walk through spilled material.
- Ventilate the contaminated area.
- Please note that materials and conditions to be avoided.
- Stop leak if you can do it without risk.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate 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.
- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

- Large Spill: Dike far ahead of liquid spill for later disposal.
- Small Spill: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

- Small Spill: Flush area with flooding quantities of water.

7. HANDLING AND STORAGE

1) Precautions for safe handling

- Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)
- Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- Avoid any skin and eye contact when insert undiluted solution. Wash ... thoroughly after handling.
- Use adequate machine for prevention when package handling.
- Do not spray. Can be evaporate quickly if sprayed.
- Check oxygen content before entering area.
- Do not spray. This material does not easily evaporated. But can be reach toxic concentration quickly in air if sprayed.

- Keep under 20°C. This material evaporate slowly at 20°C and reach toxic concentration.
- Do not spray. Can be reach toxic concentration quickly in air if sprayed.
- CAUTION: Can be reach toxic concentration quickly in air if released.
- CAUTION: Vapors displace air and can cause asphyxiation in confined spaces if released material.
- High concentration of this gas will create an oxygen-deficient atmosphere, creating the risk of asphyxiation. Check oxygen content before entering area.
- CAUTION: This material does not contain oxygen and may cause asphyxia if released in a confined area.
- CAUTION: High temperature.
- Handling refer to engineering control/personal protection section.
- Wash ... thoroughly after handling.
- Please note that materials and conditions to be avoided.

2) Conditions for safe storage (including any incompatibilities)

- Drum Handling: Must work at safe place., Loading more than 3 stack is prohibited.
- Choose a place that can be protected from strong oxidizers and acid.
- Store in a cool/low-temperature, well-ventilated {dry} place {away from heat and ignition sources}
- Store containers: AVOID the place where can be damage and contamination.
- Please note that materials and conditions to be avoided.
- Store in a dry place. Store in a closed container.

- 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
Ethylene propylene copolymer	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	No data available
Physical state	Solid
Colour	Colourless(Translucent)
Odour	Odourless
Odour threshold	No data available
pH	No data available
Melting point/freezing point	140~170°C
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)	Insoluble
Vapour density	No data available
Relative density	0.9(20°C)
n-octanol/water partition coefficient	No data available
Auto ignition temperature	375~400°C
Decomposition temperature	No data available
Viscosity	No data available
Molecular weight(mass)	>40000

10. STABILITY AND REACTIVITY

1) Stability and hazardous reactivity

- Some liquids produce vapors that may cause dizziness or suffocation.
- May cause toxic effects if inhaled.
- Fire may produce irritating and/or toxic gases.
- Some may burn but none ignite readily.
- Containers may explode when heated.
- 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) PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
 - Acute toxicity(Dermal) PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
 - Acute toxicity(Inhalation:Gases) PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
 - Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
 - Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Skin corrosion/irritation PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Serious eye damage/eye irritation PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Respiratory sensitization PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Skin sensitization PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Carcinogenicity PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Germ cell mutagenicity PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Reproductive toxicity PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Specific target organ toxicity single exposure PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Specific target organ toxicity repeated exposure PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available

- Aspiration hazard PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

- Fish>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Crustacea>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Aquatic algae>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available

2) Persistence and degradation

- n-octanol water partition coefficient>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Degradation>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available
- Biodegradation>PRODUCT : Not classified
 - Ethylene propylene copolymer : No data available

3) Bioaccumulative potential>PRODUCT : Not classified

- Ethylene propylene copolymer : No data available

4) Mobility in soil>PRODUCT : Not classified

- Ethylene propylene copolymer : No data available

5) Other adverse effects>PRODUCT : Not classified

- Ethylene propylene copolymer : 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 - EU. European Inventory of Existing Commercial Chemical Substances (EINECS)

Not applicable

- 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 (GWPs for mixture calculations), Reg. 517/2014/EU on fluorine

Not applicable

16. OTHER INFORMATION

1) Reference

- Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)
- ECHA Registered substances
- ECHA 등록자료
- ECOSAR
- EU CLP
- Ecological Structure Activity Relationships(ECOSAR)
- IUCLID
- International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)

- National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)
- National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>), Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)
- OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)
- QSAR
- Quantitative Structure Activity Relation(QSAR)
- SIDS
- Seton compliance resource center(<http://www.setonresourcecenter.com>)

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3) Revision date

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- Last revised history : No Changes

4) Other