

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 M1500

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

○ Relevant identified uses

29.Polymer preparations and compounds

○ Uses advised against

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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4) Other