

<b>LOTTE CHEMICAL</b> (Sindeabang-dong) 51, Boramae-ro5-gil, Dongjak-gu, Seoul, Korea Tel) 82-2-829-4114 Fax) 82-2-843-1010 Homepage) www.lottechem.com	Material Safety Data Sheet	File No	MSDS-PP-Y130
		Issue Date	2010.07.01
	Polypropylene (PP)	Revision Date	2013.01.01
		Page	1/5

## 1. PRODUCT AND COMPANY IDENTIFICATION

- 1) Product Name: Polypropylene(HOPELEN), GRADE: Y-130
- 2) Recommended use of the chemical and restrictions on use  
A polyolefin plastic- For industrial conversion.
- 3) Information on manufacture/supplier
  - ① Company: LOTTE CHEMICAL CORPORATION, Yeosu Plant
  - ② Address: 53, Yeosu industrial estate 4th Ave. Yeosu-city, Jeollanam-do, Korea
  - ③ Telephone & Fax: Tel) 82-61-688-2430, Fax) 82-61-688-2474

## 2. HAZARDS IDENTIFICATION

- 1) Hazard classification: None
- 2) GHS Label Elements
  - ① Symbols: Non needed according to GHS classification criteria.
  - ② Signal Word: Non needed according to GHS classification criteria.
  - ③ Hazard Statements: Non needed according to GHS classification criteria.
- 3) Other hazards which do not result in classification  
NFPA: Health = 1, Flammability = 1, Reactivity = 0

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Polypropylene	Additives
Other Name	1-Propene, Homopolymer	-
CAS No	9003-07-0	-
Content(%)	Min 99	Each < 1

## 4. FIRST AID MEASURES

- 1) Eye contact:  
Flush eyes thoroughly with water if irritation occurs.  
Seek medical advice.
- 2) Skin contact:  
Remove contaminated clothes, rinse skin with plenty of water.  
Seek medical advice.
- 3) Inhalation:  
Remove from exposure to fresh air immediately.

<b>LOTTE CHEMICAL</b> (Sindeabang-dong) 51, Boramae-ro5-gil, Dongjak-gu, Seoul, Korea Tel) 82-2-829-4114 Fax) 82-2-843-1010 Homepage) www.lottechem.com	Material Safety Data Sheet	File No	MSDS-PP-Y130
		Issue Date	2010.07.01
	Polypropylene (PP)	Revision Date	2013.01.01
		Page	2/5

If not breathing, give artificial respiration.

Refer to medical attention immediately.

4) Ingestion:

Never give anything by mouth to an unconscious person.

Seek medical advice immediately.

5) Notes to physician:

Treat symptomatically and supportively.

## 5. FIRE-FIGHTING MEASURES

1) Suitable extinguish media:

Use water fog, foam, dry chemical or CO2

2) Specific hazards arising from the chemical:

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

3) Special protective equipment and precautions for fire-fighters:

Use proper personal protective equipment.

Wear self contained breathing apparatus for fire fighting if necessary.

Keep people away. Isolate fire and deny unnecessary entry.

Cool surroundings with water to localize fire zone.

## 6. ACCIDENTAL RELEASE MEASURES

1) Personal protection and protective equipment:

Isolate the hazard area. Use appropriate safety equipment.

2) Environmental precautions:

Do not allow material to contaminate ground water system.

3) Clean-up and removal method:

Sweep up then place into a suitable container for disposal.

## 7. HANDLING AND STORAGE

1) Precautions for safe handling:

Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing.

Avoid ingestion and inhalation.

2) Conditions for safe storage:

Store in a cool, dry well-ventilated area. Keep container closed when not in use.

<b>LOTTE CHEMICAL</b> (Sindeabang-dong) 51, Boramae-ro5-gil, Dongjak-gu, Seoul, Korea Tel) 82-2-829-4114 Fax) 82-2-843-1010 Homepage) www.lottechem.com	Material Safety Data Sheet	File No	MSDS-PP-Y130
		Issue Date	2010.07.01
	Polypropylene (PP)	Revision Date	2013.01.01
		Page	3/5

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 1) Exposure limits of the chemical substance, biological exposure limits and etc:  
Not applicable
- 2) Appropriate engineering controls:  
Ventilation; Good general ventilation should be sufficient for most conditions.  
Check the recommended threshold exposure limits.
- 3) Personal protective equipment:
  - ① Respiratory protection:  
Use an approved air-purifying respirator when vapors are generated at increased temperatures or when dust is present.
  - ② Eye protection: Wear safety glasses and chemical goggles.
  - ③ Hand protection: Wear gloves with insulation for thermal protection.
  - ④ Body protection: Wear approved chemical protective clothes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- 1) Appearance: Solid(translucent to white pellet or powder).
- 2) Odor: Odorless.
- 3) Odor threshold: Not available.
- 4) pH: Not applicable.
- 5) Melting point/freezing point: 120 ~ 170 °C
- 6) Initial boiling point and boiling range: Not available.
- 7) Flash point: Not available.
- 8) Evaporation rate: Not applicable.
- 9) Flammability(solid, gas): Not available.
- 10) Upper/lower flammable or explosive limits: Not applicable.
- 11) Vapor pressure: Not applicable.
- 12) Solubility: Insoluble in water.
- 13) Vapor density: Not applicable.
- 14) Specific gravity (H2O=1): 0.89 ~ 0.91
- 15) Partition coefficient(n-octanol/water): Not applicable.
- 16) Auto-ignition temperature: > 350°C
- 17) Decomposition temperature: Not applicable.
- 18) Viscosity: Not applicable.

<b>LOTTE CHEMICAL</b> (Sindeabang-dong) 51, Boramae-ro5-gil, Dongjak-gu, Seoul, Korea Tel) 82-2-829-4114 Fax) 82-2-843-1010 Homepage) www.lottechem.com	Material Safety Data Sheet	File No	MSDS-PP-Y130
		Issue Date	2010.07.01
	Polypropylene (PP)	Revision Date	2013.01.01
		Page	4/5

19) Molecular weight: > 10,000

## 10. STABILITY AND REACTIVITY

- 1) Chemical stability: Stable under normal temperature and pressure.
- 2) Conditions to avoid: Keep away from heat, sparks and flame.
- 3) Materials to avoid: Strong oxidizing agents
- 4) Hazardous decomposition products:  
Irritating and toxic fumes and gases, unidentified organic compounds.

## 11. TOXICOLOGICAL INFORMATION

- 1) Information on the likely routes of exposure: Dust inhalation maybe cause cough.
- 2) Delayed and immediate effects and also chronic effects from short or long term exposure
  - ① Acute toxicity:  
- LD50 > 8000 mg/kg(rat)
  - ② Skin corrosion/irritation: Not available.
  - ③ Serious eye damage/irritation: Not available.
  - ④ Respiratory sensitization: Not available.
  - ⑤ Skin sensitization: Not available.
  - ⑥ Carcinogenicity: Not listed in IARC.
  - ⑦ Germ cell mutagenicity: Not listed in IARC.
  - ⑧ Reproductive toxicity: Not available.
  - ⑨ Specific target organ systemic toxicity(single exposure): Not available.
  - ⑩ Specific target organ systemic toxicity(repeated exposure): Not available.
  - ⑪ Aspiration hazard: Not available.

## 12. ECOLOGICAL INFORMATION

- 1) Ecotoxicity: Not available.
- 2) Persistence and degradability: Not available.
- 3) Bioaccumulative potential: Not available.
- 4) Mobility in soil: Not available.
- 5) Other adverse effects: Not available.

## 13. DISPOSAL CONSIDERATIONS

- 1) Disposal methods:

<b>LOTTE CHEMICAL</b> (Sindeabang-dong) 51, Boramae-ro5-gil, Dongjak-gu, Seoul, Korea Tel) 82-2-829-4114 Fax) 82-2-843-1010 Homepage) www.lottechem.com	Material Safety Data Sheet	File No	MSDS-PP-Y130
		Issue Date	2010.07.01
	Polypropylene (PP)	Revision Date	2013.01.01
		Page	5/5

All disposal practices must be in compliance with all applicable federal, state and/or local laws and regulations.

2) Precaution for disposal: Dispose of waste in accordance with local regulations.

#### 14. TRANSPORTATION REQUIREMENTS

- 1) UN Number: Not available.
- 2) UN proper shipping name: Not available.
- 3) Transport hazard classes: Not available.
- 4) Packing group, if applicable: Not available.
- 5) Marine pollutant: Not available.
- 6) Information on any special precautions for transport: Not available.

#### 15. REGULATORY INFORMATION

- 1) Korea: Not regulated.
- 2) US
  - OSHA: Not regulated.
  - CERCLA: Not regulated.

#### 16. OTHER INFORMATION

- 1) Sources of reference materials
  - Korea Occupational Safety & Health Agency
  - Globally Harmonized System of classification and labeling of chemicals(GHS), First revised edition, United Nations.
  - IARC(International Agency for Research on Cancer)
- 2) The first date of preparation: 07/01/2010
- 3) Revision number and date: 2nd, 01/01/2013
- 4) Others

The information contained herein is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Therefore, vendee assumes the risk in his use of the material.