1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identification Polypropylene

Material use
- PETOLEN EH 241 Fibres production or general injection applications.
- PETOLEN EH 102 General injection applications.
- PETOLEN EH 251 Fibres production or general injection applications.
- PETOLEN MH 220 Big bag, woven bags, rope, flat tape.
- PETOLEN MH 418 Woven bags, rope, flat tape and monofilament.

Manufacturer PETKIM Petrochemical Corporation
Telephone Number 0 90 232 616 12 40 (10 lines)
Fax 0 90 232 616 12 48
Web Address www.petkim.com.tr
Emergency Telephone Number 0 90 232 616 12 40 (ext. 1010)

2. HAZARDS IDENTIFICATION

Under normal use conditions considered to present minimal hazard from a human health and environmental standpoint.

NFPA Ratings
- Fire Hazard 1
- Health 0
- Reactivity 0

3. COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substances / Concentration %</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>Symbol</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene</td>
<td>9003-07-0</td>
<td>N/A</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact
Remove contact lenses, if worn. Flush eyes with lukewarm water for at least 15 minutes, while holding eyelids open.

Skin Contact
At normal condition no negative effects on skin. If one contact with melted materials, apply warm water slowly. Don’t rub affected area. Don’t pull off adherent clothing or objects. Seek medical attention.

Ingestion
Don’t give anything for drink. Toxic effect occurrence is not expected. It’s not biologically active. Seek medical attention.

Inhalation
No serious effect is expected. Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flash Point Temperature
Not applicable.

Flammable Limits
Not applicable.

Extinction Methods/Equipment
In case of fire in close proximity, all means of extinguishing are acceptable. Water spray, dry chemical, CO₂, foam.

Possible Hazard from Burning and Gasification/Decomposition Temperature and Products
Emits toxic fumes under fire conditions.

Special Equipment
Fire fighters and others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
6. ACCIDENTAL RELEASE MEASURES
Clean up by vacuuming or sweeping to prevent falls. Surround the area of spill and prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways. Collect and seal in properly labeled drums for disposal or re-use. Provide mechanical cleaning equipments in case of accidental release. Read Part 8 for personal protection measures.

7. HANDLING AND STORAGE
Handling
Working area should be ventilated. There should be safety showers in extruder area.

Storage
The product should be stored in a cool place and out of direct sunlight. Containers should be closed when not in use.

Storage Temperature
Ambient condition. Max 50 °C

Transport Temperature
Ambient condition. Max 50 °C

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION
An eyewash and safety shower should be nearby and ready for use.

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>ACGIH TWA</th>
<th>NIOSH TWA</th>
<th>OSHA TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene</td>
<td>Simple Asphyxiant</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

10 mg/m³, 8 & 12 Hr. TWA, total dust 5 mg/m³, 8 & 12 hr. TWA, respirable dust.

Respiratory System
None under normal processing, if ventilation is adequate.

Hands and Skin Protection
Protective gloves are required when handling hot polymer. Also, long sleeve cotton shirt and long pants if handling molten polymer.

Eyes Protection
Safety glasses are recommended to prevent particulate matter from entering eyes while grinding or machining.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pellet</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>168-171 °C</td>
</tr>
<tr>
<td>Flashing Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure (20 °C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>0.480 – 0.520 g/cm³ (Bulk)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions of use.

Conditions to Avoid
Temperature should be controlled for high level.
Materials to Avoid
Strong Oxidant, Sulphuric acid, Nitric acid.

Hazardous Decomposition Products
During the melting process, polymer reacts with oxygen and gives CO2, CO, aldehydes, monomers etc.

11. TOXICOLOGICAL INFORMATION

Toxicity Limit

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Inhalation LC 50</th>
<th>Dermal LD 50</th>
<th>Oral LD 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene</td>
<td>Not available*</td>
<td>Not available*</td>
<td>Not available*</td>
</tr>
</tbody>
</table>

Polypropylene does not appear to possess any toxicological properties. Estimated based on testing of similar products and/or the components.

Contact with Eyes
Expected to be non-irritating. But if long term exposure occurs, it may cause erythema and irritation on eyes.

Contact with Skin
Polymer powder and granules may have an abrasive effect on the skin. Molten polypropylene material will, however, cause burns and adhere strongly to skin. It is not expected to absorb through skin.

Inhalation
Inhalation of airborne particles may lead to respiratory irritation. Fumes evolved at temperatures above 225 °C include carbon monoxide, formaldehyde and acrolein; inhalation can result in respiratory irritation, lachrymation, headache, fatigue, and dizziness.

Ingestion
Polypropylene is biologically inert. No significant signs or symptoms indicative of any adverse health effect are expected to occur as a result of ingestion.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Not toxic.

Mobility
It is expected to move as inert substances.

Absorption / Desorption
Not available.

Persistence / Degradability
Not available.

Biologically Accumulation
Not available.

Toxicity in Water Media
Insoluble in water. Not toxic for aquatic life.

LC 50
Not available.

EC 50
Not available.

13. DISPOSAL CONSIDERATIONS

Waste Product
Polypropylene is normally suitable for disposal at an approved land waste site or incineration by an approved agent. It should be disposed of accordance with Federal, State, and local environmental regulations.
14. TRANSPORTATION INFORMATION

ADR Regulation  It is not classed as hazardous chemicals in ADR/RID Regulations.
Air Transportation (IATA/ICAO)  It is not regulated as hazardous material or dangerous goods for transportation under IATA /ICAO Regulations.
Marine Transportation  It is not regulated as hazardous material or dangerous goods for transportation under IATA /ICAO Regulations.

15. REGULATORY INFORMATION

EU Regulations  Classifications and labeling have been determined according to EU directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.
Classification / Symbol  It's not classified in Directive 1999/45/EC.
Risk Phrases  -
Safety Phrases  -

16. OTHER INFORMATION

OSHA  : Occupational Safety Health Administration
TWA  : Time Weighted Average
PEL  : Permissible Exposure Level
ACGIH  : American Conference of Governmental Industrial Hygienists, Inc.
TLV  : Threshold Limit Value
PNOC  : Particulates Not Otherwise Classified

The information's given here depends on our present knowledge. Related National and International Legislation and Agreements should be considered by customer with their responsibility.