
 <p>National Petrochemical Company(NPC)</p>	<p align="center">Material Safety Data Sheet (MSDS)</p> <p align="center"><i>According to the Directives 91/155/CEE-2001/58/CE-ISO 11014-1</i></p>	<p>Page: 1 of 6</p>
	<p>Product Name:</p> <p align="center">PP Polypropylene</p>	<p>Revision Number: 1</p>
		 <p align="center"> Reactivity Flammability Health </p>

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



Identification of the substance or preparation:	Polypropylene
Country of origin:	Iran (Islamic Republic of Iran)
CAS Number:	9003-07-0
Synonyms:	Polypropylene, Homopolymer
Company/undertaking identification	National Petrochemical Company Iran Petrochemical Commercial Company (IPCC)
Manufacturer subcontractor:	None
Emergency phone number:	00982188881735
Contact email:	msds@petrochem-ir.net
Fax:	00982188839511
Association/Organization:	None
Use of the substance/Preparation:	None

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous substances:	This product is not hazardous
Hazardous label(s):	This product is not hazardous
Toxicological characteristics:	This product is not toxic.
Substances present at a concentration below the minimum danger:	Irritating vapors to respiratory system and eyes may form when polymer is processed at high temperatures. Molten or heated material in skin and eye contact can cause severe burns.
Other component:	None

3. IDENTIFICATION OF HAZARDS

Risk phrases:	Heated material: avoid skin and eye contact and inhalation vapors.
Skin contact:	Heated Polymer: skin contact can cause serious thermal burns.
Eye contact:	Heated Polymer: Eye contact can cause serious thermal burns. Vapors formed when polymer is heated may be irritating to the eye.
Inhalation :	Negligible at room temperature. Nuisance dusts can be irritating to the upper respiratory tract. Irritating vapors may form when the polymer is processed at high temperature.
If swallowed:	No effects are expected for ingestion of small amounts. May be a choking hazard.
Other information:	None

 National Petrochemical Company(NPC)	Material Safety Data Sheet (MSDS) According to the Directives 91/155/CEE-2001/58/CE-ISO 11014-1	Page: 2 of 6
	Product Name: PP Polypropylene	Revision Number: 1  Reactivity Flammability Health

4. FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor
NEVER induce swallowing in an unconscious person.

Skin contact :

Polymer:

No known EFFECT on skin contact, rinse with water few minutes.

Heated Polymer:

For serious burns from heated polymer, get medical attention.

In case of exposure by inhalation:

For inhalation of powder, remove to fresh air

In case of splashes or contact with eyes:

Rinse with water for a few minutes. Seek medical attention if necessary.

In case of swallowing:

No First Aid procedures are needed.

Note of physician:

No specific advice. Treat according to symptoms present.

5. FIRE FIGHTING MEASURES

Flammable class:

May be combustible at high temperature.

Suitable extinguishing media:

SMALL FIRE: Use DRY chemicals, CO₂, water spray, or foam.

LARGE FIRE: Use water spray, fog or foam.

DO NOT use water jet.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Fire may produce irritating gases and dense smoke. Processing or material handling equipment may generate dust of sufficiently small particle size, that when suspended in air and in presence of static discharge and mechanical impact may be explosive.



Special protective equipment for fire fighting :

Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full Protective gear.

Other information:

Fire may produce irritating gases and dense smoke.

Combustion products are Carbon oxides (CO and CO₂) and soot.

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	<p>Product Name:</p> <p align="center">PP Polypropylene</p>	<p>Revision Number: 1</p>
		 <p>Reactivity Flammability Health</p>

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	<p>Small spill and leak: Pellets on the floor could present a serious slipping problem. Good housekeeping must be maintained at all times to avoid this hazard .(Always wear recommended personal protective equipment.)</p> <p>Remove ignition sources.</p>
Environmental precautions:	<p>WATER SPILL: Keep pellets out of waterways.</p> <p>LAND SPILL: Not yet Determined</p> <p>AIR SPILL: Not yet Determined</p> <p>GENERAL PROCEDURES: Vacuum or sweep up material and place in a disposal Container.</p>
Methods for cleaning up and disposal:	<p>Sweep, shovel, or vacuum material into clean Containers. Large Spill and Leak: Use a shovel to put the material into a convenient waste disposal container. Sweep up with a minimum of dusting</p>
Other information:	None



7. HANDLING AND STORAGE

The regulations relating to storage premises apply to workshop where the product is handled:

Handling:	<p>Handling of plastic may form nuisance dust. Protect personnel. Pneumatic material handling and processing equipment may generate dust of sufficiently small particle size that, when suspended in air, may be explosive.</p> <p>Dust accumulations should be controlled through a comprehensive dust control program that includes, but is not limited to, source capture, inspection and repair of leaking equipment, routine housekeeping and employee training in hazards. See NFPA 654.</p>
Storage:	<p>Keep container dry. Keep in a cool place. Ground all equipment containing material. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.</p>
Specific use(s):	None

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values:	<p>Dust should be considered a nuisance dust: ACGIH TLV 10 mg/m³ total dust OSHA PEL: 15 mg/m³ total dust; 5-mg/m³ respirable dust</p>
Exposure controls:	<p>Heated polymer requires local exhaust ventilation or other engineering control to reduce exposure to vapors below</p>

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	<p>Product Name:</p> <p align="center">PP Polypropylene</p>	<p>Revision Number: 1</p>
		 <p align="center"> Reactivity Flammability Health </p>



Personal protective equipment:	recommended levels.
Eye protection:	None
Respiratory protection:	Safety goggles. For operations where eye or face contact can occur, eye protection such as goggles or a face shield is recommended.
Hand protection:	For operations where inhalation exposure can occur, wear appropriate approved respirator when inhalation is not adequate. Thermally insulated gloves required when handling hot material.
Skin and body protection:	When handling or processing resins at elevated temperatures or in a molten state, wear protective clothing over the skin to prevent contact.
Health measures:	Not available
Environmental exposure controls:	Plastic pellets are defined as a "significant material" which requires any industrial plant that may expose pellets to storm water to secure a storm water permit.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information:	None
Appearance (at 20°C):	Solid (Solid pellets)
Colour:	Translucent white pellets
Odour:	Characteristic waxy odor
PH (at 20°C):	Not applicable.
Melting /freezing pointrange (°C):	120°C -170 °C
Flash point (°C):	> 390°F (> 200°C)
Flammability:	Flammability Risk 1 (Slight)
Auto-ignition temperature:	None
Explosive properties:	None
Oxidising properties:	None
Vapour pressure (at 20°C):	Not available
Density (at 20°C):	0.91 to 0.97 (Water = 1)
Solubility (at 20°C):	water solubility: Insoluble
	solubility in fats: Insoluble
Other information:	None

10. STABILITY AND REACTIVITY

Stability:	The product is stable. Avoid temperatures above 300 degree C (570 F).
Conditions to avoid:	Excessive heat should be avoided.
Material to avoid:	Incompatible or reactive with fluorine gas,

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	<p>Product Name:</p> <p align="center">PP Polypropylene</p>	<p>Revision Number: 1</p>
		 <p>Reactivity Flammability Health</p>

Hazardous decomposition products: oxidizing agents (nitric acid and perchloric acid), free halogens, benzene, petroleum ether, gasoline and lubricating oils, and aromatic and chlorinated hydrocarbons.

None anticipated under normal or recommended handling & storage conditions.
Decomposing products at high temperature :carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity: - LD₅₀, oral, rat (mg.kg⁻¹): Not available
- LD₅₀, oral, mouse (mg.kg⁻¹): Not available
- LD₅₀, dermal (mg.kg⁻¹): Not available

Sub chronic – chronic toxicity: **CARCINOGENIC EFFECTS:** Classified NONE by NTP, NONE by OSHA. 3 (Not classifiable for human.) by IARC.

Sensibilization: None

Carcinogenicity: Not considered to be dangerous to humans

Reproductive effects: No additional remark

Human experience: Not considered to be dangerous to humans

Other information: During heating and processing of the material vapors may cause irritating effects of the respiratory tract .

12. ECOLOGICAL INFORMATION

Ecotoxicity: No specific ecological data are available for this product.

Bioaccumulative potential: Effects on nature due to bioaccumulation are not known.

Mobility: No specific ecological data are available for this product.


Persistence and degradability: No specific ecological data are available for this product.

Other adverse effects: No specific ecological data are available for this product.

13. DISPOSAL CONSIDERATIONS

Disposal of product: Waste must be disposed of in accordance with national and local environmental regulations.

Disposal of packaging: Discard as non-hazardous organic solid waste. Polypropylene bags should be reused in the working area, products transportation or recycled by specialized companies.

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	<p>Product Name:</p> <p align="center">PP Polypropylene</p>	<p>Revision Number: 1</p>

14. TRANSPORT INFORMATION

Land transport:	Not established
ADR/RID:	Not established
Packaging group:	Not applicable
Maritime transport:	Not applicable
Air transport:	Not applicable

15. REGULATORY INFORMATION

	(NPCA-HMIS - NFPA - KEY)																				
Hazardous label(s):	<table> <tr> <td>HEALTH</td> <td>0</td> <td>0</td> <td>(4=Severe</td> </tr> <tr> <td>FLAMMABILITY</td> <td>1</td> <td>1</td> <td>3=Serious</td> </tr> <tr> <td>REACTIVITY</td> <td>0</td> <td>0</td> <td>2=Moderate</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1=Slight</td> </tr> <tr> <td></td> <td></td> <td></td> <td>0=Minimal)</td> </tr> </table>	HEALTH	0	0	(4=Severe	FLAMMABILITY	1	1	3=Serious	REACTIVITY	0	0	2=Moderate				1=Slight				0=Minimal)
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Safety phrases:	This product is not hazardous																				
Risk phrases:	This product is not hazardous																				

16. OTHER INFORMATION

None

The contents and format of this MSDS are in accordance with EEC Commission Directive 2001/58/EC

Disclaimer of liability:

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