



MATERIAL SAFETY DATA SHEET

Polypropylene (PP)

SECTION 1 – CHEMICAL PRODUCT AND COMPANY

Chemical Name & Synonyms : Polypropylene (PP) Copolymer
Chemical Family : Polyolefin
C.A.S. No. : 9010-79-1
Formula : -
Manufacturer's Name : Deltco Plastics
Address : 601 Industrial Park Road
Ashland, WI 54806
Telephone No. : 715-682-9007
Fax No. : 715-682-0358

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Content (Normal)*	CAS Number	Exposure Limits in Air		
			ACGIH TLV-TWA	ACGIH TLV-STEL	IDLH
Polypropylene	99.25 wt%	9010-79-1	10 mg/m ³ (inhalable fraction)	NA	NA
Proprietary additives	<=0.75 wt%	Mixture			

*For Different grades of PP, minor changes may be there.

SECTION 3 – HAZARDS IDENTIFICATION

Information Pertaining To Particular Dangers for Man and Environment
Negligible hazard at ambient temperature (-18⁰ C to +50⁰ C)

Classification System

Product is not considered to be hazardous under normal processing conditions.

SECTION 4 - FIRST AID MEASURES

GENERAL INFORMATION

At room temperature the product is neither an irritant nor gives off hazardous vapors. The measures listed below apply to critical situations (Fire, incorrect process conditions).

Skin contact

If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissues and polymer. Do not attempt to peel the polymer from skin. Obtain immediate emergency medical attention if burn is deep or extensive.

Eye Contact

Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.

Inhalation

If symptoms are experienced, move victim to fresh air. Obtain medical attention if breathing difficulty persists.

Ingestion

Adverse health effects due to ingestion are not anticipated.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Ignition Temperature : 335⁰ C

Auto Ignition Temperature : 350⁰ C

Flammable Limits : NA

Suitable Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical Powder

For Safety reasons, unsuitable extinguishing media: None

Protective Equipment: Respiratory & Eye protection for fire fighting personnel

Special Hazards caused by the material, its products of combustion or resulting gases:

In case of fire it can release: Carbon dioxide (CO₂) and when lacking oxygen (O₂), carbon monoxide (CO), Ketones & Aldehydes. The products of the burning are dangerous. The formation of hydrocarbons and aldehydes are possible in the initial stages of a fire (Especially in between 400⁰ C and 700⁰ C).

Additional Information

Heat value: 8000 – 11000 kcal/kg

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill and Leak procedure : Sweep up spilled material for use or disposal. Good housekeeping must be maintained to avoid potential slipping problems

Caution : Keep walking surface free of spilled material to avoid slipping hazard.

SECTION 7 – HANDLING AND STORAGE

HANDLING

Information for safe handling:

No special requirements necessary, if handled at room temperature.

Avoid spilling the product, as this might cause falls.

STORAGE

Requirements to be met by storerooms and containers:

This product may react with strong oxidizing agents and should not be stored near such materials. Store the bags in areas protected with automatic sprinklers. Storage temperature should be below 60⁰ C.

Do not smoke.

Take precautionary measures to prevent the formation of static electricity.

Electric safety equipment.

Open flames prohibited.

Store the product in bags, car silos, container, or large cartons.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Protect from heat and direct sunlight.

Store container in a well ventilated position.

Store under dry conditions.

Specific applications: For safe stacking follow the storage recommendations specific for this product.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use in a well-ventilated area. If handling results in dust generation, special ventilation may be needed to minimize dust exposure. If heated material generates vapor or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory system

Product processing, heat sealing of film or operations involving the use of wires or blades heated above 300⁰ C may produce dust, vapor or fumes. To minimize risk of over exposure to dust, vapor or fumes it is recommended that a local exhaust system is placed above the equipment, and that the working area is properly ventilated. If ventilation is inadequate, use certified respirator that will protect against dust/mist.

Skin and body

Hot material: Wear heat-resistant protective gloves, clothing and face shield able to withstand the temperature of the molten product. Cold material: None required; however, use of gloves is good industrial practice.

Hands

Hot material: Wear heat-resistant protective gloves, clothing and face shield able to withstand the temperature of the molten product. Cold material: Not required; however, use of gloves is good industrial practice. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Eyes

Use safety glasses with side shields. Use dust goggles if high dust concentration is generated.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form	: Solid Granules
Color	: Translucent to White
Odor	: Slight Waxy Odor
Melting point/Melting range	: 130-167 ⁰ C
Flash point	: >329 ⁰ C
Ignition temperature	: >400 ⁰ C
Decomposition temperature	: >300 ⁰ C
Danger of explosion	: Product is not explosive
Density	: 0.89-0.94 g/cm ³
Solubility in / Miscibility with water	: Insoluble
Additional information	: Soluble in boiling, aromatic chlorinated solvents

SECTION 10 – STABILITY AND REACTIVITY

Chemical stability

This product is stable under normal use conditions for shock, vibration, pressure or temperature.

Chemical stability - Condition to Avoid

Avoid strong oxidizing agents. Avoid processing material over 300⁰ C.

Hazardous Polymerization

Not likely to occur

Corrosivity

Product is not corrosive

Dangerous products of decomposition: No hazardous decomposition products known at room temperature. At elevated temperature the material will begin to decompose producing fumes that can contain CO₂, CO, Ketones & Aldehydes.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Primary irritant effect:

- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **sensitization:** No sensitizing effect known.

ADDITIONAL TOXICOLOGICAL INFORMATION

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12 – ECOLOGICAL INFORMATION

Information about elimination (persistence and degradability):

Other information: The product is not biodegradable.

General notes:

The product is not toxic, small particles can have physical effects on water and soil organisms.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product:

Recommendation

- 1) Recycle (Reprocess)
- 2) Disposal through controlled incineration or authorized waste dump in accordance with Local, State or Federal Regulations.

Unclean Packaging:

Recommendation: Disposal must be done according to official regulations.

SECTION 14 – TRANSPORT INFORMATION

Transport/Additional Information:

Not regulated as a dangerous goods for transportation

SECTION 15 – REGULATORY INFORMATION

National regulations, other regulations, limitations and prohibitive regulations

PP manufactured by Deltco Plastics shall meet the requirement stipulated in IS: 10910 on “Specification for Polypropylene and its copolymer for safe use in contact with foodstuff, Pharmaceuticals and Drinking Water”.

Additives incorporated in this grade conform to the positive list of constituents as prescribed in IS: 10909

The product and additives incorporated in it also comply with FDA: CFR Title 21.177.1520 Olefin Polymer.

SECTION 16 – OTHER INFORMATION

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics. **Deltco Plastics** takes no responsibility for inappropriate use, processing and handling by purchasers and users of the product.