

PRODUCT RISK ASSESSMENT

Name:

CAS No. 9003-07-0
Polypropylene Homo Polymer (Homo PP)

Product Overview:

- Polypropylene Homo Polymer (Homo PP) is a colorless, non flammable, non reactive solid with no odor. See [Product Description](#).
- Polypropylene Homo Polymer (Homo PP) is usually stored and/or transported as 25 Kg Bags or 1 MT FIBC jumbo Bags. It is used in raw material for plastic Processing industry.
- Polypropylene Homo Polymer (Homo PP) is a non hazardous material and it's over exposure by short term or long term inhalation does not cause any harmful health effect. See [Health Information](#).
- For handling and storage keep in cool and well ventilated place, Keep away from heat and sunlight
- RIL supports the sale of Homo PP for use of plastics in Processing Industry only in industrial applications. Please provide adequate ventilation when using the material and follow the principals of good occupational hygiene. See [Exposure Potential](#).
- Not classified as dangerous for supply and use. See [Physical Hazard Information](#).
- Release of dust to environment does not pose any threat. See [Environmental Information](#).

Manufacture of Product:

- **Capacity:** – Worldwide capacity of Polypropylene (Homopolymer and Copolymer) in 2010 was in excess of 45 million metric tons. RIL produces 2.7 million metric tones per annum.
- **Process:** Polypropylene Homopolymer is prepared by Gas Phase and Bulk phase Polymerization using Propylene as feed stock & Heterogeneous Catalyst

Product Description:

- Polypropylene Homo Polymer (Homo PP) is a colorless solid in granular form with no odor. It is non-reactive with environment.

Product Uses:

- Homo Polypropylene is widely used in Plastic Processing Industry to Make variety of Products such as Packaging Films , sheet , Boxes , Containers, Bags, FIBC, Home Ware , Home Care , Personal Care & Hygiene Combs, Brushes, Medicals & Surgical Equipments, Appliances, Automotives Furniture's, Industrial Products and article of day to day usage.

Exposure Potential:

- Polypropylene Homo Polymer (Homo PP) is used as raw material for plastic processing industry. Based on the uses for Polypropylene Homo Polymer (Homo PP), the public could be exposed through:

- **Workplace Exposure:** Exposure can occur either in manufacturing facility or in the various industrial or manufacturing facilities that use Polypropylene Homo Polymer (Homo PP). It is produced, distributed, stored and consumed in closed systems. Those working with Polypropylene Homo Polymer (Homo PP) in manufacturing operations could be exposed to dust during maintenance, sampling, testing, or other procedures. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. See [Health Information](#).
- **Consumer Exposure To RIL Product:** Polypropylene Homo Polymer (Homo PP) is used as a raw material in the manufacture of plastic products. RIL does not sell Polypropylene Homo Polymer (Homo PP) for direct consumer use. RIL supports the sale of Polypropylene Homo Polymer (Homo PP) only for use in industrial applications and will not knowingly sell into unsupported applications. Direct consumer exposure to RIL Polypropylene Homo Polymer (Homo PP) is unlikely.
- **Environmental Releases:** The product is non-biodegradable
In the event of spillage, ensure suitable personal protection including respiratory protection during removal of spillage. Spillages may be slippery. Avoid release to environment. Do not allow to drains, sewers or watercourses. Sweep up and shovel into waste drums or plastic bags. Dust clouds are sensitive to ignition by electrostatic discharge.
- **Large Releases:** The product is non-biodegradable
Industrial spills or releases of Homo PP are infrequent. If a large spill does occur, the material should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Positive pressure, self-contained breathing apparatus (SCBA) with a full-face mask approved by NIOSH is recommended for emergency work. Eliminate all sources of ignition immediately.

[Environmental, Health, and Physical Hazard Information.](#)

In case of fire –

- **Extinguishing Media:** Extinguish preferably with foam, carbon dioxide or dry chemical. Do not use water jet or water spray.
- **Fire Fighting Protective Equipment:** A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.
- **Hazardous Decomposition Product(s):** Combustion or thermal decomposition will evolve toxic and irritant vapors.
- Can melt and burn in a fire. Molten material tends to flow or drip and will propagate fire. See [Physical Hazard Information](#).

For more information, request the relevant Material Data Safety Sheet from RIL

Health Information:

- Homo Polypropylene is non toxic non hazards material and can be considered as material safe for contact with humans and animals,
- **Ingestion** Low oral toxicity. Polypropylene Homopolymer: LD50 (rat) : >5000 mg/kg
- **Inhalation:** Low acute toxicity. Dusts and vapors or fumes evolved during thermal processing may cause irritation to the respiratory system.
- **Skin Contact** No evidence of irritant effects from normal handling and use.
- **Eye Contact** Dust may have irritant effect on eyes. Permanent damage is unlikely.
- **Long Term Exposure** chronic effects are unlikely.

For more information, request the relevant Material Data Safety Sheet

Environmental Information:

- Under normal conditions, Homo PP exists as a solid granule.
- Homo PP is susceptible to degradation by exposure to sunlight and moisture
- Homo PP insoluble in water. Floats on water. The product has low mobility in soil.
- The product is non-biodegradable.
- Low toxicity to aquatic organisms.
- Unlikely to affect biological treatment processes

For more information, request the relevant Material Safety Data Sheet

Physical Hazard Information:

PP homopolymer is a non-reactive product, stable at ambient storage conditions. It does not decompose in the air and does not release any harmful gases or other products. Keep the product in original container in a cool, ventilated place. No special precautions needed for handling and storage. Can melt and burn in fire. Molten material tends to flow and will propagate fire.

For more information, request the relevant Material Data Safety Sheet

Regulatory Information:

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of PP Homopolymer. These regulations may vary by city, state, country, or geographic region. Information may be found by requesting the Technical Data Sheet, or requesting the relevant Material Data Safety Sheet from RIL.

Reference:

- National Institute for Occupational Safety and Health guide to chemical hazards and International Chemical Safety Cards (WHO/IPCS/ILO) and <http://toxnet.nlm.nih.gov/cgi-bin/sis/search>,
<http://webnet3.oecd.org/eChemPortal/Results2.aspx?SubstanceId=169630>, . <http://ecb.jrc.ec.europa.eu/esis/index.php?PGM=ein>
- European Commission Joint Research Centre (<http://ecb.jrc.ec.europa.eu/>)
- Regulation EC/1907/2006 (REACH)
- European SDS DirectiveANSIZ400

Other Information:

As part of its Sustainability Goals, RIL has committed to make publicly available safety Assessments for its products globally. This product safety assessment is intended to give general information about the chemical (or categories of chemicals) addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the relevant Material Data Safety Sheet, which should be consulted before use of the chemical. This product safety assessment does not replace required communication documents such as the Material Data Safety Sheet.

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