

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US - OSHA Hazard Communication Standard (29 CFR 1910.1200)

Issuing Date 07-September-2023

Version 1.0

1. Identification		
Product identifier		
Trade Name	Post-Consumer Recycled Polypropylene	
Product Code	RPP101 GY5	
Other means of identification		
Recommended use of the chemical and restrictions on use		
Recommended use	Polymer preparations and compounds	
Restrictions on use	Medical and pharmaceutical applications, food contact, contact with drinking water, toys, or cosmetics.	
Details of the supplier of the safety data sheet		
<u>Supplier Address</u> Braskem America, Inc.		

Braskem America, Inc. 1735 Market Street Philadelphia, PA 19103-7583 TEL: (800) 396 - 5252

Emergency telephone number

Emergency Telephone

CHEMTREC: +1-703-527-3887 (INTERNATIONAL) 1-800-424-9300 (NORTH AMERICA)

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Yes

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Warning

Hazard statements

May form combustible dust concentrations in air

Other information

Special danger of slipping by leaking/spilling product. Electrostatic charges may be generated during handling. If small particles are generated during processing or handling, this product may form combustible dust concentrations in air.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
Post-consumer recycled polypropylene	9003-07-0	45-55	*
Post-consumer recycled polyethylene	9002-88-4	<5	*
Ethylene-propylene copolymer	9010-79-1	45-55	*
Titanium dioxide	13463-67-7	<0.5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Additions

This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not considered to be hazardous chemicals in the concentrations used per the OSHA Hazcom Standard, 29 CFR 1910.1200. However, dusts containing titanium dioxide are considered potential human carcinogens by IARC.

4. First-aid measures

Description of first aid measures

Inhalation	Move victim to fresh air. Medical aid is necessary if symptoms appear to be an obvious consequence of inhalation.	
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.	
Skin contact	After contact with product or dust: Wash skin with soap and water. Get medical attention if irritation develops and persists. After contact with molten product, cool skin area rapidly with cold water. Removal of solidified molten material from skin requires medical assistance.	
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Consult a physician if necessary.	
Most important symptoms and effects, both acute and delayed		
Symptoms	Product dust may be irritating to eyes, skin and respiratory system.	

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	CO2, dry chemical, dry sand, alcohol-resistant foam. Water spray or fog.	
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.	
Specific hazards arising from the chemical	Avoid generation of dust. Fine dust dispersed in air may ignite. Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.	
Explosion data Sensitivity to mechanical impact None.		
Sensitivity to static discharge	Yes.	
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid generation of dust. Avoid contact with eyes. Use personal protective equipment as required. Do not breathe dust. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges.	
Other information	Refer to protective measures listed in Sections 7 and 8.	
Methods and material for containment and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so. Prevent dust cloud.	
Methods for cleaning up	Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. Pick up and transfer to properly labeled containers.	

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with eyes. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. Airborne dusts are potentially explosive. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Handling and processing operations should be conducted in accordance with 'best practices' (e.g. NFPA-654).
Conditions for safe storage, inc	luding any incompatibilities

Storage ConditionsStore in a cool, dry area away from potential sources of heat, open flames, sunlight or other
chemicals. Keep container closed when not in use. Keep in an area equipped with

sprinklers.

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Incompatible materials

Fluorine, strong acids, strong oxidizing agents, chlorinated solvents, and aromatic compounds.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene-propylene copolymer 9010-79-1	Not applicable	Not applicable	Not applicable
Post-consumer recycled polypropylene 9003-07-0	Not applicable	Not applicable	Not applicable
Post-Consumer recycled polyethylene 9002-88-4	Not applicable	Not applicable	Not applicable
Titanium Dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³	5,000 mg/m ³

Appropriate engineering controls

Engineering controls	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment.
Individual protection measures, suc	ch as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles). During hot processing:. Tight sealing safety goggles. If there is a risk of contact:. Face protection shield.
Hand protection	Wear suitable gloves. Heat resistant gloves are recommended when handling molten materials.
Skin and body protection	Wear suitable protective clothing. During hot processing:. Long sleeved clothing, Protective shoes or boots.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Do not eat, drink or smoke when using this product. Take off contaminated clothing and

wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and chemical properties

Information on basic physical and chemical properties			
Appearance	pellets		
Physical state	Solid		
Color	Mixed Color (generally grey), opaque		
Odor	Odorless or slight odor		
Odor threshold	No data available		
Property	Values	Remarks • Method	
рН	No data available	None known	
Melting point / freezing point	144 - 165 °C / 291 - 329 °F	None known	
Boiling point / boiling range	No data available	None known	
Flash point	No data available	None known	
Evaporation rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability or explosive	No data available		
limits			
Lower flammability or explosive	No data available		
limits			
Vapor pressure	negligible	None known	
Vapor density	No data available	None known	
Relative density	0.9-0.92	None known	
Water solubility	negligible	None known	
Solubility(ies)	No data available	None known	
Partition coefficient	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Other information			
Explosive properties	No information available.		
Oxidizing properties	No information available.		
Softening point	No information available		
Molecular weight	No information available		
VOC Content (%)	No information available		
Liquid Density	No information available		
Bulk density	No information available		

10. Stability and reactivity

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Excessive heat. Heating in air. Dust formation.
Incompatible materials	Fluorine, strong acids, strong oxidizing agents, chlorinated solvents, and aromatic compounds.
Hazardous decomposition products	s Decomposition products depend on temperature, exposure to air, and the presence of other substances. Processing may release irritating fumes, olefinic and paraffinic compounds,

carbon monoxide, and carbon dioxide. Potential thermal decomposition products include trace aldehydes (including formaldehyde), alcohols, organic acids, and hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Product Information		
Inhalation	May cause irritation of respiratory tract.	
Eye contact	Dust contact with the eyes can lead to mechanical irritation.	
Skin contact	Contact with dust can cause mechanical irritation or drying of the skin.	
Ingestion	May cause irritation of the mouth, throat and stomach.	
Symptoms related to the physical, chemical and toxicological characteristics		

Symptoms	No information available.
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Acute toxicity

Numerical measures of toxicity

Based on available data, the classification criteria are not met

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium Dioxide	>10,000 mg/kg (Rat)		=5.09 mg/L 4h (Rat)
13463-67-7			

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene-propylene copolymer 9010-79-1	-	Group 3	-	-
Post-consumer recycled polypropylene 9003-07-0	-	Group 3	-	-
Post-Consumer recycled polyethylene 9002-88-4	-	Group 3	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	-

IARC (International Agency for Research on Cancer) Group 3 - Not Classifiable as to Carcinogenicity in Humans Group 2B – Possible Carcinogenic to Humans

Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.	
STOT - single exposure	None of the ingredients are known to cause specific target organ effects form a single exposure.	
STOT - repeated exposure	None of the ingredients are known to cause specific target organ effects through prolonged or repeated exposure.	
Target organ effects	Respiratory system, Eyes, Skin.	
Aspiration hazard	None of the ingredients are known to be an aspiration hazard.	
Other adverse effects	No information available.	
Interactive effects	No information available.	

12. Ecological information				
Ecotoxicity	The environmental impact of this product has not been fully investigated.			
Persistence and degradability Bioaccumulation	No information available. There is no data for this product.			
Other adverse effects	No information available.			

Waste treatment methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not release into the environment. Recover or recycle if possible.
Additional Information	Do not reuse empty containers. Do not dispose of waste into sewer. Do not dispose of with household waste. Do not allow to enter drains.

14. Transport information

13. Disposal considerations

DOT	Not regulated
TDG	Not regulated
<u>MEX</u>	Not regulated
IATA	Not regulated
IMDG_	Not regulated

15. Regulatory information

NOTE: Please contact supplier for regulatory information.

<u>TSCA</u>

All known components of this product are listed on the active portion of the TSCA Inventory or are exempt from the need for such listing.

International Inventories Contact supplier for inventory compliance status.

US Federal Regulations

SARA 313 See NOTE at top of Section 15 of SDS.

SARA 311/312 Hazard Categories See NOTE at top of Section 15 of SDS.

<u>CWA (Clean Water Act)</u> See NOTE at top of Section 15 of SDS.

<u>CERCLA</u> See NOTE at top of Section 15 of SDS.

US State Regulations

California Proposition 65 See NOTE at top of Section 15 of SDS.

U.S. State Right-to-Know Regulations See NOTE at top of Section 15 of SDS

U.S. EPA Label Information EPA Pesticide Registration Number Not applicable

16. Other information

<u>NFPA</u>	Health hazards	1	Flammability	1	Instability 0		Physical and Chemical Properties –
HMIS	Health hazards	1	Flammability	1	Physical Hazards	0	Personal Protection X
Chronic Hazard Star Legend * = Chronic Health Hazard				ard			

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
TWASection 8: EXPOSURE CONTROLS/PERSONAL PROTECTIONTWATWA (time-weighted average)STELCeilingMaximum limit value*Skin designation

Key literature references and sources for data used to compile the SDSAgency for Toxic Substances and Disease Registry (ATSDR)U.S. Environmental Protection Agency ChemView DatabaseEuropean Food Safety Authority (EFSA)EPA (Environmental Protection Agency)Acute Exposure Guideline Level(s) (AEGL(s))U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide ActU.S. Environmental Protection Agency High Production Volume ChemicalsFood Research JournalHazardous Substance DatabaseInternational Uniform Chemical Information Database (IUCLID)Japan GHS ClassificationAustralia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set RTECS (Registry of Toxic Effects of Chemical Substances) World Health Organization

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

US OSHA LABEL per 29 CFR § 1910.1200(f)

Post Consumer Recycled Polypropylene

Warning

BEFORE USING, READ THE SAFETY DATA SHEET. Slipping hazard. May form combustible dust concentrations in air if small particles are generated during further processing, handling, machining, or by other means.

Braskem America, Inc 1735 Market Street Philadelphia, PA 19103-7583 TEL: (800) 396-5251

EMERGENCY PHONE NUMBER CHEMTREC: 800-424-9300

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