1. Identification

Product identifier

Product Name
FL100PP, FL105PP, GR100PP, GR105PP, GR200PP

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use
Polymer preparations and compounds

Restrictions on use
No information available.

Details of the supplier of the safety data sheet

Supplier Address
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
Polypropylene Copolymer

Revision Date: 24-June-2020

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene-propylene copolymer</td>
<td>9010-79-1</td>
<td>98-100</td>
</tr>
</tbody>
</table>

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 Avoid generation of dust. Fine dust dispersed in air may ignite. Powders, dusts, shavings,
chemical

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, including any incompatibilities

Storage Conditions

Store 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.

8. Exposure controls/personal protection

Control parameters
Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene Copolymer</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**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, such 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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Filament or pellet</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Color</td>
<td>White to off-white</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless or slight odor</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>160 - 170 °C / 320 - 338 °F</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Flammability Limit in Air:
  Upper flammability or explosive limits: No data available
  Lower flammability or explosive limits: No data available
Vapor pressure: negligible
Vapor density: No data available
Relative density: 0.9-0.92
Water solubility: negligible
Solubility(ies): No data available
Partition coefficient: No data available
Autoignition temperature: No data available
Decomposition temperature: No data available
Kinematic viscosity: No data available
Dynamic viscosity: No data 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: None known based on information supplied.

Hazardous decomposition products: 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.

Acute toxicity

Numerical measures of toxicity
Based on available data, the classification criteria are not met

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.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene Copolymer</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9010-79-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in 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
No information available.

Bioaccumulation
There is no data for this product.

Other adverse effects
No information available.
13. Disposal considerations

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

DOT
Not regulated

TDG
Not regulated

MEX
Not regulated

IATA
Not regulated

IMDG
Not regulated

15. Regulatory information

Note: Please contact supplier for regulatory information.

TSCA
Polypropylene Copolymer 9010-79-1
Listed on the United States TSCA (Toxic Substances Control Act) inventory

International Inventories
Contact supplier for inventory compliance status.

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no known chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

WHMIS
Uncontrolled product according to WHMIS classification criteria

U.S. State Right-to-Know Regulations

US State Regulations
Contact Supplier.

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

16. Other information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>1</th>
<th>Flammability</th>
<th>1</th>
<th>Instability</th>
<th>0</th>
<th>Physical and Chemical Properties –</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>1</td>
<td>Flammability</td>
<td>1</td>
<td>Physical Hazards</td>
<td>0</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Chronic Hazard Star Legend * = Chronic Health Hazard

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

Legend
Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AÉGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia 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 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

Issuing Date 18-March-2020
Revision Date 24-June-2020
Revision Note Section 1 – Product Name
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
Polypropylene Copolymer

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

Revision: 06/24/2020

US OSHA LABEL per 29 CFR § 1910.1200(f)