# *MATERIAL SAFETY DATA SHEET*

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Type:** **C4027 POLYPROPYLENE ETHYLENE RANDOM COPOLYMER**

**Product Name:** JR-, TR-

This MSDS covers multiple grades of polypropylene. The grades names begin with the codes listed above, followed by a series of numbers. For industrial exposure and emergency response purposes, all listed grades have similar physical, chemical and hazard properties.

**Manufacturer Information:**

Sunoco Chemicals, Inc.
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

**Product Use:**

Housewares
Reusable food containers,
Fast cycle injection molding

**Emergency Phone Numbers:**

| | |
|---|---|
| Chemtrec | (800) 424-9300 |
| Sunoco Inc. | (800) 964-8861 |

**Information:**

| | |
|---|---|
| Product Safety Information | (888) 567-3066 |

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No. | Amount (Vol%) |
|---|---|---|
| ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 | 100 - 100 |

**EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)**

| | CAS No. | Governing Body | Exposure Limits | | |
|---|---|---|---|---|---|
| Limit for the product | | ACGIH | TLV | 10 | mg^/m3 |

## 3. HAZARDS IDENTIFICATION

- **EMERGENCY OVERVIEW**
  Caution! Combustible particulate solids (combustible dust) of sufficiently small particle size when suspended in air in the presence of an ignition source can result in a fire or explosion. Adequate housekeeping and control of ignition sources should be provided. See NFPA 654. Inhalation of vapors from thermal processing may cause irritation to the upper respiratory tract.

**Hazards Ratings:**

*Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme*

| | Health | Fire | Reactivity | PPI |
|---|---|---|---|---|
| NFPA | 1 | 1 | 0 | |
| HMIS | 0 | 1 | 0 | |

- **POTENTIAL HEALTH EFFECTS**

  - **PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**
    The following diseases or disorders may be aggravated by exposure to this product: respiratory system, skin,
  - **INHALATION**
    Inhalation of fumes, vapors and smoke from thermal processing may cause irritation to the upper respiratory tract. Symptoms may include burning sensation, coughing and sore throat.

    **LC50 (mg/l):** No data
    **LC50 (mg/m3):** No data
    **LC50 (ppm):** No data

  - **SKIN**
    Contact with heated product may cause thermal burns.

    **Draize Skin Score:** No data out of 8.0
    **LD50 (mg/kg):** No data

  - **EYES**
    Contact with heated product may cause thermal burns. Slight irritation from contact with pellets. Possible irritation from fumes, vapors or smoke from thermal processing.
  - **INGESTION**
    No effects expected if product is ingested.
    **LD50 (g/kg):** No data

## 4. FIRST AID MEASURES

- **INHALATION**
  Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get medical attention.
- **SKIN**
  For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as the damaged flesh can be easily torn.
- **EYES**
  For contact with molten product, flush immediately with plenty of cool water for at least 20 minutes. Get medical attention.
- **INGESTION**
  First aid not normally required.

## 5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**
  The following media may be used to extinguish a fire involving this material: Water spray; Carbon dioxide; Dry chemical;
- **FIRE FIGHTING INSTRUCTIONS**
  The use of fresh air equipment such as Self Contained Breathing Apparatus (SCBA) or Supplied Air Respirators should be worn for fire fighting if exposure or potential exposure to products of combustion is expected. Wear structural fire fighting gear.

**FLAMMABLE PROPERTIES**

| | Typical | Minimum | Maximum | Text Result | Units | Method |
|---|---|---|---|---|---|---|
| Flash Point | | | | No data | F | N/A |
| Autoignition Temperature | | | | No data | F | N/A |
| Lower Explosion Limit | | | | No data | % | N/A |
| Upper Explosion Limit | | | | No data | % | N/A |

## 6. ACCIDENTAL RELEASE MEASURES

Vacuum or sweep up material and place in a disposal container. Loose pellets may present a slipping hazard. Clean up spills immediately, observing precautions in Protective Equipment section. The very fine particles can cause a fire or explosion, eliminate all ignition sources.

## 7. HANDLING AND STORAGE

- **HANDLING**
  Avoid breathing vapors from heated material. Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Minimize generation of dust or fine particulates.
- **STORAGE**
  Store in a cool dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**
  Minimize generation of dust or fine particulates. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs and particulates within their LEL during the use of this product. General dilution ventilation may assist with the reduction of air contaminant and particulate concentrations.
- **PERSONAL PROTECTION**
  - **EYE PROTECTION**
    Splash proof chemical goggles are recommended to protect against the splash of product. Full-face shield is recommended to protect against splash of hot product.
  - **GLOVES or HAND PROTECTION**
    Wear insulated impervious protective gear to protect against the splash of hot product.
  - **RESPIRATORY PROTECTION**
    Half-mask air purifying respirator with combination organic vapor and HEPA filter cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with combination organic vapor and HEPA filter cartridges is acceptable for exposures to fifty (50) times the exposure limit.
  - **OTHER**
    Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical Property | Typical | Units | Text Result | Reference |
|---|---|---|---|---|
| Appearance | | other | White pellets | |
| Boiling Point | | F | No data | |
| Bulk Density | | lb/gal | No data | |
| Melting Point | | C | 140- 150 C | |
| Molecular Weight | | g/mole | No data | |

| | | | | |
|---|---|---|---|---|
| Octanol/Water Coefficient | | other | No data | |
| pH | | other | No data | |
| Specific Gravity | | other | 0.89 - 0.91 | |
| Solubility In Water | | wt % | Negligible | |
| Odor | | other | Odorless | |
| Odor Threshold | | other | No data | |
| Vapor Pressure | | psia | Negligible | |
| Viscosity (F) | | other | No data | |
| Viscosity (C) | | other | No data | |
| % Volatile | | wt % | No data | |

## 10. STABILITY AND REACTIVITY

- **STABILITY**
  Stable
- **CONDITIONS TO AVOID**
  none known
- **INCOMPATIBILITY**
  The following materials are incompatible with this product: Strong oxidizers such as chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, sodium hypochlorite, calcium hypochlorite and permanganates. Chlorine; Nitric acid;
- **HAZARDOUS DECOMPOSITION PRODUCTS**
  Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
  Will not occur

## 11. ECOLOGICAL INFORMATION

No data available

## 12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. Contract to authorized disposal service.

## 13. TRANSPORT INFORMATION

| Governing Body | Mode | Proper Shipping Name |
|---|---|---|
| DOT | Ground | Not Regulated |
| IATA | Air | Non-Hazardous -- Non-Regulated |

| Governing Body | Mode | Hazard Class | UN/NA No. | Label |
|---|---|---|---|---|
| DOT | Ground | N/A | N/A | |
| IATA | Air | Not Regulated | | |

## 14. REGULATORY INFORMATION

| Regulatory List | Component | CAS No. |
|---|---|---|
| Inventory - Australia (AICS) | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |
| Inventory - Canada - Domestic Substances List | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |

| | | |
|---|---|---|
| Inventory - China | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |
| Inventory - Japan - (ENCS) | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |
| Inventory - Korea - Existing and Evaluated | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |
| Inventory - Philippines Inventory (PICCS) | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |
| Inventory - TSCA - Sect. 8(b) Inventory | ETHYLENE/PROPYLENE COPOLYMER | 9010-79-1 |

**Title III Classifications Sections 311,312:**

- Acute: **NO**
- Chronic: **NO**
- Fire: **NO**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

## 15. OTHER INFORMATION

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Polypropylene has been tested in laboratory rats by subcutaneous implantation of discs or powder. Local sarcomas were induced at the site of implantation. No epidemiological studies or case reports suggest any serious chronic health hazards from long-term exposure to polypropylene decomposition products below the irritation level (IARC, 19, 128).

FERRO

## 1) CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

**FERROCON - EPP99GA02BK**
**Electrically Conductive Polypropylene Preparation**

Manufactured by:
Ferro Corporation
Filled and Reinforced Plastics Division
5001 O'Hara Dr.
Evansville, IN USA 47711

HMIS RATINGS: 1 HEALTH
1 FLAMMABILITY
0 REACTIVITY

Facility informational number:
812-423-5218
24 Hour informational number:
216-641-5324

## 2) COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Name: Electrically Conductive Polypropylene Preparation
Chemical Family: Polypropylene
Product Appearance: Opaque, natural, or colored pellets

## 3) HAZARDS IDENTIFICATION:

This product is not hazardous as defined in 29 CFR 1910.1200.
This is a polymeric material. All constituents are embedded within the polymeric matrix and present no likelihood of exposure during handling and normal processing conditions.

- At decomposition temperatures, fumes may be released that are irritating and toxic.
- Contact with molten material causes burns.
- Static charge accumulation is possible, which can result in incendiary spark discharge.
- In the form of a fine dust, explosive dust-air mixtures may be possible.

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### *** EMERGENCY OVERVIEW ***

Product is in the form of natural or colored plastic pellets and can burn in a fire, releasing toxic vapors, gases and fumes. Presents no other unusual hazards during a fire. Spilled pellets can be a slip hazard.

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## POTENTIAL HEALTH EFFECTS:

EYE CONTACT:
Particles may scratch eye surfaces, causing mechanical irritation.

SKIN CONTACT:
Little hazard at ambient temperatures (up to 300 degrees F).
Molten product can cause burns.

INHALATION:
Little hazard at ambient and processing temperatures.
At higher (Decomposition) temperatures, product may begin to give off vapors or aerosols which may temporarily irritate the mouth, nose, throat and lungs.

## 4) FIRST AID MEASURES:

EYE CONTACT:
Flush eyes with water. If irritation continues, see a physician.

SKIN CONTACT:
For hot product, cool burned area with clean, cool water. Cover area with a clean bandage and seek medical attention. If molten material is stuck to skin or clothing, do not try to remove it. The damaged flesh underneath the material can be easily torn. Cover area with a clean bandage and get medical attention immediately.

INHALATION:
If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

INGESTION:
Unlikely. First aid is normally not required.

## 5) FIRE FIGHTING MEASURES:

Material will burn in a fire, giving off oxides of carbon, and other toxic vapors, gases and fumes.
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use any conventional fire extinguishing media. Do not direct high pressure water spray directly at burning plastic because it could splatter, burning firefighters and spreading the fire.

## 6) ACCIDENTAL RELEASE MEASURES:

Recover spilled material and place in suitable containers for recycling or disposal.
Avoid runoff into sanitary sewers.
Avoid runoff into ditches or storm sewers that lead to waterways.
Spilled pellets can be a slip hazard.

## 7) HANDLING AND STORAGE:

Use proper grounding procedures when performing bulk transfers of this material.
Keep away from flame.
Store in dry area.
To avoid contamination, keep containers closed when not in use.

## 8) EXPOSURE CONTROLS AND PERSONAL PROTECTION:

During processing, use adequate general and/or local ventilation to keep dusts and fumes below exposure limits.
Wear safety glasses with side shields.
When material is heated, wear gloves and arm protection to protect against thermal burns.

## 9) PHYSICAL AND CHEMICAL PROPERTIES:

Plastic pellets, natural or colored, with a mild plastic odor.

Specific gravity: 1.00

Melting point: > 275 degrees F

## 10) STABILITY AND REACTIVITY:

Material is stable.
At decomposition temperatures, material can release vapors, gases, and fumes which may contain traces of acrolein, formaldehyde, other aldehydes and, other low molecular weight hydrocarbons.
Hazardous polymerization will not occurs

## 11) TOXICOLOGY INFORMATION:

Information available suggests this material, as shipped by Ferro, to be of very low toxicity regardless of routes of exposure. Degradation products may include trace amounts of chemicals listed as carcinogens by various agencies, including ACGIH, NTP, and State of California (Prop 65).

## 12) ECOLOGICAL INFORMATION:

These plastic pellets are inert materials, not expected to decompose and constituents are not expected to leach out into the environment. Avoid runoff into storm sewers or ditches that lead to water ways. Fish and waterfowl may unintentionally ingest pellets that reach their habitat.

## 13) DISPOSAL CONSIDERATION:

Recycle or reprocess if possible. This material, as shipped from Ferro, is not considered a hazardous waste under RCRA. Please check state and local regulations for disposal instructions. Used packaging may be re-used, recycled, or landfilled.

## 14) TRANSPORT INFORMATION:

Not regulated under DOT. Not considered a "dangerous good" for transport.

## 15) REGULATORY INFORMATION:

TSCA:

The components of this product are listed on the TSCA Inventory. Not subject to TSCA Section 12(b) Export Notification Requirements.

CERCLA:

This product is not subject to CERCLA reporting requirements.

SARA 313:

This product contains the following materials subject to SARA 313 reporting requirements:
None

CLEAN WATER ACT:

Plastic pellets are defined by the U.S.E.P.A. under the Clean Water Act as a "significant material" which requires any industrial plant that may expose pellets to storm water to obtain a storm water discharge permit.

Please check your local regulatory agencies for additional requirements.

## 16) OTHER INFORMATION:

For additional product information, please contact your technical sales representative. For additional health and safety information, please call 812-423-5218.

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guarantee, or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.