



## MATERIAL SAFETY DATA SHEET

### 1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME(S) **POLYPROPYLENE COPOLYMER**  
CAS NUMBER Mixture  
MSDS NUMBER 30019  
PRODUCT CODE(S) 13R9A; 13RT9A; 23R2A  
MANUFACTURER / SUPPLIER Flint Hills Resources, LP  
118 Huntsman Way  
Longview, TX  
75602 USA

#### TELEPHONE NUMBERS - 24 HOUR EMERGENCY ASSISTANCE

CHEMTREC (US) 800-424-9300  
CHEMTREC 703-527-3887  
CARECHEM24 (Europe) 44 208 762 8322 (UK)  
CARECHEM24 (No. & So. America) 44 208 762 8322 (UK)  
Flint Hills Resources, LP  
(after business hours) 432-296-1674

#### TELEPHONE NUMBERS - GENERAL ASSISTANCE

7-4 (M-F, CST) 432-640-8520  
8-5 (M-F, CST) MSDS Assistance 316-828-7988  
Email: [msdsrequest@fhr.com](mailto:msdsrequest@fhr.com)

### 2 HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

CAUTION!

#### HEALTH HAZARDS

DUST MAY CAUSE SKIN, EYE AND RESPIRATORY TRACT IRRITATION  
SEE "TOXICOLOGICAL INFORMATION" (SECTION 11) FOR MORE INFORMATION

#### REACTIVITY HAZARDS

STABLE

#### POTENTIAL HEALTH EFFECTS, SKIN

Dusts may cause irritation due to abrasion. Repeated or prolonged skin contact may cause reddening, itching and inflammation.

#### POTENTIAL HEALTH EFFECTS, EYE

Dusts may cause mechanical irritation including pain, lacrimation and redness. Effects may become more serious with repeated or prolonged contact.

### POTENTIAL HEALTH EFFECTS, INHALATION

Dusts may cause irritation to the nose, throat and lungs by mechanical abrasion.

Fumes or vapors from the heated material may be irritating to the respiratory tract.

Overexposure to this material may cause systemic damage including target organ effects listed under "Toxicological Information" (Section 11).

### POTENTIAL HEALTH EFFECTS, INGESTION

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration*	Exposure Limits / Health Hazards
ETHYLENE-PROPYLENE POLYMER	9010-79-1	94 - 95 %	No Data
1-BUTENE, POLYMER WITH ETHENE	25087-34-7	5 %	No Data
MODIFIERS - ADDITIVES	Mixture	0.0001 - 1 %	No Data

\*Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

### COMPOSITION COMMENTS

This Material Safety Data Sheet is intended to communicate potential health hazards and potential physical hazards associated with the product(s) covered by this sheet, and is not intended to communicate product specification information. For product specification information, contact your Flint Hills Resources, LP representative.

## 4 FIRST AID MEASURES

### SKIN

Immediately wash skin with plenty of soap and water after removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

### EYE

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

### INHALATION

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR).

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

### INGESTION

If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty.

Never give anything by mouth to an unconscious person.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

### NOTES TO PHYSICIAN

Treat symptomatically.

## 5 FIRE FIGHTING MEASURES

### HAZARDOUS COMBUSTION PRODUCTS

A variety of decomposition products may occur including simple hydrocarbons to toxic and irritating gases such as carbon, carbon monoxide, carbon dioxide, acids, ketones, and aldehydes.

### EXTINGUISHING MEDIA

Use water spray, dry chemical, carbon dioxide or fire-fighting foam for Class B fires to extinguish fire.

### BASIC FIRE FIGHTING PROCEDURES

Material will burn in a fire.

Evacuate area and fight fire from a safe distance.

Use water spray to cool adjacent structures and to protect personnel. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage tank due to fire.

Firefighters must wear NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

### UNUSUAL FIRE & EXPLOSION HAZARDS

Hazardous melting and dripping may occur at elevated temperatures. May burn at or above flash point, and airborne dust may explode if ignited.

Flash Point	> 650 °F (> 343.3 °C) (PMCC)
Autoignition Temperature	No Data
Flammability Limits in Air, Lower, % by Volume	No Data
Flammability Limits in Air, Upper, % by Volume	No Data

## 6 ACCIDENTAL RELEASE MEASURES

### EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. (See Exposure Controls/Personal Protection in Section 8.)

### ENVIRONMENTAL PRECAUTIONS

Avoid excessive generation of dust. If dust is generated, appropriate respiratory, eye and skin protection should be used to protect personnel during clean-up.

If material is released to the environment, take immediate steps to stop and contain release. Caution should be exercised regarding personnel safety and exposure to the released material. Notify local, provincial and/or federal authorities, if required.

### SPILL OR LEAK PROCEDURE

Avoid the generation of dusts during clean-up. Sweep up or gather material and place in appropriate container for disposal. Avoid cleanup procedures that may result in water pollution.

See Exposure Controls/Personal Protection (Section 8).

## 7 HANDLING & STORAGE

### HANDLING

Minimize dust generation during handling and contact.

Dusts may become explosive when dispersed in a confined space such as a building or vessel and in the presence of oxygen and heat (spark). Bond and ground lines and equipment (tank, transfer lines, pump, floats, etc.) used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

Avoid accumulation of dust on surfaces. Clean up dust using approved methods.

Avoid inhaling dust and contact with skin and eyes.

Do not eat, drink or smoke in areas of use or storage.

### STORAGE

Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles.

Empty containers may contain material residue. Do not reuse without adequate precautions.

Do not eat, drink or smoke in areas of use or storage.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING CONTROLS

Ventilation and other forms of engineering controls are the preferred means for controlling exposures.

### EYE PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Keep away from eyes. Eye contact can be avoided by using chemical safety glasses, goggles, and/or face shield. Have eye washing facilities readily available where eye contact can occur.

### SKIN PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Avoid skin contact with this material. Use appropriate chemical protective gloves, such as Viton®, when handling. Additional protective clothing may be necessary.

Good personal hygiene practices such as properly handling contaminated clothing, using wash facilities before entering public areas and restricting eating, drinking and smoking to designated areas are essential for preventing personal chemical contamination.

### RESPIRATORY PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

A NIOSH approved dust respirator may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

## 9 PHYSICAL & CHEMICAL PROPERTIES

### ODOR AND APPEARANCE

COLORLESS, ODORLESS, SOLID

Flash Point > 650 °F (> 343.3 °C) (PMCC)

Boiling Point Not Applicable - Solid

Specific Gravity	Not Applicable
Melting Point	290 - 330 °F (143.3 - 165.6 °C)
Percent Volatile	~0
Vapor Pressure	Not Applicable
Evaporation Rate	No Data
Vapor Density	Not Applicable
Viscosity	Not Applicable
Solubility in Water	Insoluble
Octanol/Water Partn	No Data
Volatile Organic	No Data
Pour Point	No Data
pH Value	Not Applicable
Freezing Point	No Data
Density	0.895 - 0.905 @25 °C, g/ml
Molecular Formula	Not Applicable
Molecular Weight	Not Applicable
Chemical Family	Polypropylene Copolymer
Odor Threshold	No Data

## 10 STABILITY & REACTIVITY

### STABILITY/INCOMPATIBILITY

Avoid contact with strong oxidizers.

Avoid high temperatures, open flames, sparks and the use of ungrounded electrical equipment.

See precautions under Handling & Storage (Section 7).

### HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS

Combustion may produce hazardous combustion products and other decomposition products in the case of incomplete combustion.

### HAZARDOUS POLYMERIZATION

Will not occur.

## 11 TOXICOLOGICAL INFORMATION

### ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact.

### TOXICOLOGICAL DATA

POLYPROPYLENE BASED POLYMERS: Dust may be irritating to the respiratory system. Prolonged and repeated inhalation of dust may cause impaired lung function and lung changes. Vapors and fumes from thermal processing may be irritating to the eyes and respiratory system.

Exposure to this material may cause adverse effects or damage to the following organs or organ systems: skin, eyes, and respiratory tract.

## 12 ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

**ECOTOXICITY:**

Not classified as harmful to aquatic organisms.

**PERSISTENCE/BIODEGRADATION:**

Not readily biodegradable.

**BIOACCUMULATION:**

Not classified in terms of bioaccumulation in aquatic organisms.

**MOBILITY IN ENVIRONMENT:**

Not classified in terms of mobility in air, soil and water.

## 13 DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

In Canada, wastes should be disposed of according to federal, state, provincial and local regulations.

## 14 TRANSPORT INFORMATION

### BILL OF LADING - BULK (U. S. DOT)

Non-Regulated by DOT

### BILL OF LADING - NON-BULK (U. S. DOT)

Non-Regulated by DOT

### BILL OF LADING (CTDG)

Non regulated

### COMMENTS

See Bill of Lading for proper shipping description.

## 15 REGULATORY INFORMATION

### FEDERAL REGULATIONS

All ingredients are on the TSCA inventory, or are not required to be listed on the TSCA inventory.

This material, as supplied, contains no hazardous substances regulated under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302), or any extremely hazardous substances regulated under the Emergency Planning and Community Right to Know Act (EPCRA) (40 CFR 355), and thus a release of this material as supplied has no reporting requirements under these regulations.

This material does not contain toxic chemicals (in excess of the applicable de minimis concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

Check local, regional or state/provincial regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Failure to report may result in substantial civil and criminal penalties.

This material is intended for use in the manufacture of articles and goods as appropriate. It is the responsibility of the manufacturer to determine that it is safe, lawful and technically suitable for the intended use. This material is not intended for use in the manufacture of any form of implanted medical or surgical device.

### STATE REGULATIONS

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### CANADIAN REGULATIONS

All ingredients are on the Canadian Domestic Substance List (DSL), or are not required to be listed on the DSL.

Not controlled under WHMIS (Canada).

### SARA 311/312 HAZARD CATEGORIES

Immediate Hazard: X Delayed Hazard: X Fire Hazard: Pressure Hazard:  
Reactivity Hazard:

### NFPA RATINGS

Health 0 Flammability 1 Instability 0 Special Hazards

### HMIS RATINGS

Health 0 Flammability 1 Physical Hazard 0

## 16 OTHER INFORMATION

### DISCLAIMER

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. Adequate training and instruction should be given by you to your employees and affected personnel. Appropriate warnings and safe handling procedures should be provided by you to handlers and users. Additionally, the user should review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with the applicable federal, state, provincial or local hazard communication requirements. This MSDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, vendor neither assumes nor retains any responsibility for any damage or injury resulting from abnormal use, from any failure to adhere to appropriate practices, or from any hazards inherent in the nature of the material.

### SECTIONS / SUBSECTIONS CHANGED

FIRST AID MEASURES: SKIN

HANDLING & STORAGE: HANDLING

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+188-1699-6168 (ShangHai)  
+852-6957-5415 (HongKong)

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