



# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### K-RESIN® COPOLYMER

**Product Use:** Resin

**Product Number(s):** 0001020725, 0001020721, 0001017035, 0001020729, 0001020731, 0001020727, 0001020730, 0001020728, 0001017034, 0001017037, 0001017036, 0001020726

**Synonyms:** STYRENE-BUTADIENE COPOLYMER

**Product Cas No.:** PROPRIETARY

**Company Identification:**

Chevron Phillips Chemical Company LP  
10001 Six Pines Drive  
The Woodlands, TX 77380

**Product Information:**

MSDS Requests: 1 - (800) 852-5530  
Technical Information: 1 - (800) 852-5531

**24-Hour Emergency Telephone Numbers**

HEALTH: Chevron Phillips Emergency Information Center 866.442.9628 (North America) and 1.832.813.4984 (International)

TRANSPORTATION: North America: CHEMTREC 800.424.9300 or 703.527.3887  
ASIA: +1.703.527.3887  
EUROPE: BIG .32.14.584545 (phone) or .32.14.583516 (telefax)  
SOUTH AMERICA SOS-Cotec Inside Brazil: 0800.111.767  
Outside Brazil: 55.19.3467.1600

## SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	AMOUNT	EINECS	SYM	R-PHRASES
PROPRIETARY MATERIALS	VARIOUS	100 % weight	NA	NA	NA

**Occupational Exposure Limits:**

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
PROPRIETARY MATERIALS	ACGIH	Not Established	NA	NA	NA

Control as Particulate Not Otherwise Classified (PNOC). The ACGIH Guideline\* for respirable dust is 3.0 mg/m<sup>3</sup> and 10.0 mg/m<sup>3</sup> for total dust. The OSHA PEL for respirable dust is 5.0 mg/m<sup>3</sup> and 15.0 mg/m<sup>3</sup> for total dust.

\* This value is for inhalable (total) particulate matter containing no asbestos and < 1.0% crystalline silica.

**SECTION 3 HAZARDS IDENTIFICATION**

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**EMERGENCY OVERVIEW**

Clear and opaque pellets

- DUST MAY PRODUCE MECHANICAL IRRITATION TO THE MUCOUS MEMBRANES OF THE EYES, NOSE, THROAT AND UPPER RESPIRATORY TRACT

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**IMMEDIATE HEALTH EFFECTS:**

**Eye:** Not expected to cause prolonged or significant eye irritation. If this material is heated, thermal burns may result from eye contact. Material is dusty and may scratch the surface of the eye.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact. Thermal burns to the skin: may include pain or feeling of heat, discoloration, swelling, and blistering.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** The dust from this material may cause respiratory irritation.

**SECTION 4 FIRST AID MEASURES**

**Eye:** Flush eyes with running water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention. If heated material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

**Skin:** To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. Get medical attention if any symptoms develop. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin or use solvents or thinners to dissolve it. The use of vegetable oil, mineral oil, or petroleum jelly is recommended for removal of this material from the skin.

**Ingestion:** If swallowed, do not induce vomiting. Give the person a glass of water or milk to drink and get immediate medical attention. Never give anything by mouth to an unconscious person.

**Inhalation:** Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

**SECTION 5 FIRE FIGHTING MEASURES**

**NFPA RATINGS:** Health: 1 Flammability: 1 Reactivity: 0

**FLAMMABLE PROPERTIES:**

**Flashpoint:** NDA

**Autoignition:** NDA

**Flammability (Explosive) Limits (% by volume in air):** Lower: NDA Upper: NDA

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** Evacuate area of all unnecessary personnel. Wear appropriate safety equipment for fire conditions including NIOSH self-contained breathing apparatus (SCBA) and other protective equipment as described in Section 8 if exposure conditions warrant.

**Combustion Products:** Combustion may form: Carbon Oxides, Simple Hydrocarbons

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Shovel and sweep up or use industrial vacuum cleaner. Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

**Spill Management:** Avoid creating dust clouds. Shovel, sweep up or use industrial vacuum cleaner to pick up. Place in container for proper disposal. Reduce airborne dust and prevent scattering by moistening with water. If heated material is spilled, allow it to cool before proceeding with disposal methods.

**Reporting:** U.S.A. regulations require reporting spills of this material that could reach any surface waters. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL . REFER TO PRODUCT LABEL OR MANUFACTURERS TECHNICAL BULLETINS FOR THE PROPER USE AND HANDLING OF THIS MATERIAL .**

**Precautionary Measures:** Avoid contact with eyes, skin and clothing. Discard contaminated clothing and shoes or thoroughly clean before reuse. Use caution to avoid creation of dusts and to prevent inhalation of product dust (fines). Avoid contact with product dust. Airborne dust concentrations above 20 mg/l may create a dust explosion hazard. Keep out of water sources and sewers. Spilled pellets may create a slipping hazard. Avoid breathing vapors or fumes which may be released during thermal processing. Do not breathe dust at levels above the recommended exposure limits. Avoid breathing material. Keep container closed. Use only with adequate ventilation. Avoid contact of heated material with eyes, skin, and clothing. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Unusual Handling Hazards:** Potentially toxic/irritating fumes may be evolved from heated material.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids, National Fire Protection Association (NFPA 77), Recommended Practice on Static Electricity' (liquids, powders and dusts), and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents' (liquids).

**General Storage Information:** Treat as a solid that can burn. Store away from oxidizing materials, in a cool, dry place with adequate ventilation. Bond and ground transfer equipment. DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

**Container Warnings:** Containers, even those that have been emptied, can contain residues of dusts or solid particulates which may create both health and fire/explosion hazards.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3) applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

If heated material generates vapor or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye/Face Protection:** Wear eye protection such as safety glasses, chemical goggles, or faceshields if engineering controls or work practices are not adequate to prevent eye contact. No special eye protection is normally required. If operating conditions create dust that is not adequately controlled, wear appropriate goggles. If this material is heated, wear chemical goggles or safety glasses and a face shield.

**Skin Protection:** If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

**Respiratory Protection:** If user operations generate harmful levels of airborne material that is not adequately controlled by ventilation, wear a NIOSH approved respirator that provides adequate protection. Use the following elements for air-purifying respirators: Air-Purifying Respirator for Dusts and Mists

**Occupational Exposure Limits:**

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
PROPRIETARY MATERIALS	ACGIH	Not Established	NA	NA	NA

Control as Particulate Not Otherwise Classified (PNOC). The ACGIH Guideline\* for respirable dust is 3.0 mg/m<sup>3</sup> and 10.0 mg/m<sup>3</sup> for total dust. The OSHA PEL for respirable dust is 5.0 mg/m<sup>3</sup> and 15.0 mg/m<sup>3</sup> for total dust.

\* This value is for inhalable (total) particulate matter containing no asbestos and < 1.0% crystalline silica.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOR:** Clear and opaque pellets

**pH:** NA

**VAPOR PRESSURE:** NA

**VAPOR DENSITY (AIR=1):** >2

**BOILING POINT:** NA

**SOLUBILITY (in water):** Negligible

**PERCENT VOLATILE:** 0.2 % volume

**SPECIFIC GRAVITY:** 1 g/cm<sup>3</sup>

**EVAPORATION RATE:** <1

**SECTION 10 STABILITY AND REACTIVITY**

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** No Data Available

**Incompatibility With Other Materials:** Reacts with acids, halogenated hydrocarbons, aldehydes, ketones and strong oxidizing materials.

**Hazardous Decomposition Products:** Carbon Oxides. Simple Hydrocarbons.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION****IMMEDIATE HEALTH EFFECTS:**

**Acute Oral Toxicity:** LD50 / not known

**Acute Dermal Toxicity:** LD50 / not known

**Acute Inhalation Toxicity:** LC50 / not known

**Eye Irritation:** This material is not expected to be irritating to the eyes.

**Skin Irritation:** This material is not expected to be irritating to the skin.

**ADDITIONAL TOXICOLOGY INFORMATION:**

The toxicological properties of this product have not been tested or have not been tested completely and its handling or use may be hazardous. EXERCISE DUE CARE.

Long-term exposure to high dust concentrations may cause non-debilitating lung changes.

This product is STYRENE BUTADIENE COPOLYMER (K-RESIN® COPOLYMER).

K-Resin® Copolymer was not mutagenic in AMES test. A 90 day feeding study in rats given diets containing up to 5% K-Resin® Copolymer (powder) indicated no adverse affects. Combustion (burning) of most carbon-containing material forms carbon monoxide. Chronic exposure to carbon monoxide causes fatigue, poor memory, loss of sensation in fingers, visual disturbances and insomnia. Carbon monoxide inhalation may cause carboxyhemoglobinemia.

Carboxyhemoglobinemia is frequently misdiagnosed as flu. Sensitive sub-populations to the inhalation of carbon monoxide exist. Carbon monoxide displaces oxygen in the bloodstream and therefore, can adversely effect people with pre-existing heart disease, pregnant women and smokers.

**SECTION 12 ECOLOGICAL INFORMATION**

**ECOTOXICITY:**

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

**ENVIRONMENTAL FATE:**

This material is not expected to be readily biodegradable.

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**Shipping Descriptions per regulatory authority.**

**US DOT**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**ICAO / IATA**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**IMO / IMDG**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**RID / ADR**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**SECTION 15 REGULATORY INFORMATION****SARA 311/312 CATEGORIES:**

- |                                       |    |
|---------------------------------------|----|
| 1. Immediate (Acute) Health Effects:  | NO |
| 2. Delayed (Chronic) Health Effects:  | NO |
| 3. Fire Hazard:                       | NO |
| 4. Sudden Release of Pressure Hazard: | NO |
| 5. Reactivity Hazard:                 | NO |

**REGULATORY LISTS SEARCHED:**

01 = CA Prop 65	17 = FDA 178	33 = RCRA Waste Appendix VIII
02 = LA RTK	18 = FDA 179	34 = RCRA Waste D-List
03 = MA RTK	19 = FDA 180	35 = RCRA Waste P-List
04 = MN Hazardous Substance	20 = FDA 181	36 = RCRA Waste U-List
05 = NJ RTK	21 = FDA 182	37 = SARA Section 311/312
06 = PA RTK	22 = FDA 184	38 = SARA Section 313
07 = CAA Section 112 HAPs	23 = FDA 186	39 = TSCA 12 (b)
08 = CWA Section 307	24 = FDA 189	40 = TSCA Section 4
09 = CWA Section 311	25 = IARC Group 1	41 = TSCA Section 5(a)
10 = DOT Marine Pollutant	26 = IARC Group 2A	42 = TSCA Section 8(a) CAIR
11 = FDA 172	27 = IARC Group 2B	43 = TSCA Section 8(a) PAIR
12 = FDA 173	28 = IARC Group 3	44 = TSCA Section 8(d)
13 = FDA 174	29 = IARC Group 4	45 = WHIMS - IDL
14 = FDA 175	30 = NTP Carcinogen	46 = Germany D TAL
15 = FDA 176	31 = OSHA Carcinogen	47 = Germany WKG
16 = FDA 177	32 = OSHA Highly Hazardous	48 = DEA List 1
		49 = DEA List 2

**No components of this material were found on the regulatory lists above.****WHMIS CLASSIFICATION:**

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

**CHEMICAL INVENTORY LISTINGS:**

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian Domestic Substances List (DSL).

PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.

KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

**EU RISK AND SAFETY PHRASES:**

S22: Do not breathe dust.

**EU Symbols:** NA

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 1 Flammability: 1 Reactivity: 0 Special: NA

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA).

**REVISION STATEMENT:** This revision updates all sections of the MSDS please review.

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV	Threshold Limit Value	TWA	- Time Weighted Average
-	-	-	-
STEL	- Short-term Exposure Limit	PEL	- Permissible Exposure Limit
ACGIH	- American Conference of Government Industrial Hygienists	OSHA	- Occupational Safety & Health Administration
NIOSH	- National Institute for Occupational Safety & Health	NFPA	- National Fire Protection Agency
WHMIS	- Workplace Hazardous Materials Information System	IARC	- Intl. Agency for Research on Cancer
EINECS	- European Inventory of existing Commercial Chemical Substances	RCRA	- Resource Conservation Recovery Act
SARA	- Superfund Amendments and Reauthorization Act.	TSCA	- Toxic Substance Control Act
EC50	- Effective Concentration	LC50	- Lethal Concentration
LD50	- Lethal Dose	CAS	- Chemical Abstract Service
NDA	- No Data Available	NA	- Not Applicable
<=	- Less Than or Equal To	>=	- Greater Than or Equal To
CNS	- Central Nervous System	MAK	- Germany Maximum Concentration Values

**This data sheet is prepared according to the latest adaptation of the EEC Guideline 67/548.**

**This data sheet is prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).**

**This data sheet is prepared according to the ANSI MSDS Standard (Z400.1).**

**This data sheet was prepared by EHS Product Stewardship Group, Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, TX 77380.**

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.