SAFETY DATA SHEET



Marlex® D139FK Polyethylene

Version 1.8

Revision Date 2020-12-17

according to GB/T 16483 and GB/T 17519

SECTION 1: Identification of the substance/mixture and of the company/undertaking

| Product information | |
|--|---|
| Product Name Material | Marlex® D139FK Polyethylene 1120037, 1120036, 1120035, 1120034, 1120033, 1101044, 1101043, 1101042, 1101021, 1101020, 1101019, 1101018 |
| Company | : Chevron Phillips Chemical Company LP 10001 Six Pines Drive The Woodlands, TX 77380 |
| Emergency telephone: | |
| EUROPE: BIG +32.14.58 Mexico CHEMTREC 01-8 | tional) 800 or 703.527.3887(int'l) 812 9186 1132) China: 0532 8388 9090 84545 (phone) or +32.14583516 (telefax) 800-681-9531 (24 hours) sec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600 |
| Responsible Department E-mail address Website | Product Safety and Toxicology Group SDS@CPChem.com www.CPChem.com |
| permanent implantation in th | CAUTION: Do not use this material in medical applications involving he human body or permanent contact with internal body fluids or tissues |
| fluids or tissues. | |
| Do not use this material in m human body or contact with | medical applications involving brief or temporary implantation in the internal body fluids or tissues unless the material has been provided os Chemical Company LP or its legal affiliates under an agreement whic e contemplated use. |
| Do not use this material in m human body or contact with directly from Chevron Phillip expressly acknowledges the Chevron Phillips Chemical C express warranty or implied | internal body fluids or tissues unless the material has been provided os Chemical Company LP or its legal affiliates under an agreement whic |

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SECTION 2: Hazards identification

Classification of the substance or mixture

GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)

Emergency Overview

Form: Pellets Physical state: solid Color: Opaque Odor: Mild to no odor

Classification

Not a hazardous substance or mixture.

Labeling

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

| Chemical name | | CAS-No. / EINECS-No. | Concentration [wt%] | | |
|-------------------------------|----------------|--|---|--|--|
| Polyethylene Hexene Copolymer | | 25213-02-9 | 99 - 100 | | |
| Contains no hazardous ing | | ording to GHS. | | | |
| CTION 4: First aid measure | S | | | | |
| | | | | | |
| If inhaled | fumes | to fresh air in case of accidental in s from overheating or combustion. physician. | | | |
| In case of skin contact | imme | : If the molten material gets on skin, quickly cool in water. Seek immediate medical attention. Do not try to peel the solidified material from the skin or use solvents or thinners to dissolve it. | | | |
| In case of eye contact | | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. | | | |
| If swallowed | : Do no | Do not induce vomiting without medical advice. | | | |
| CTION 5: Firefighting meas | ures | | | | |
| Flash point | : No da | ata available | | | |
| Autoignition temperature | : No da | ata available | | | |
| Suitable extinguishing media | Foam foggir | r. Water mist. Dry chemical. Car a. If possible, water should be app ng nozzle since this is a surface bu cation of high velocity water will sp | lied as a spray from a urning material. The | | |
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| Irlex® D139FK Polye sion 1.8 | Revision Date 2020-1 |
| 50111.0 | surface layer. Avoid the use of straight streams that may create a dust cloud and the risk of a dust explosion. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Specific hazards during fire fighting | : Risks of ignition followed by flame propagation or secondary explosions can be caused by the accumulation of dust, e.g. on floors and ledges. |
| Special protective equipment for fire-fighters | : Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary. |
| Further information | : This material will burn although it is not easily ignited. |
| Fire and explosion protection | : Treat as a solid that can burn. Avoid generating dust; fine dus dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. |
| Hazardous decomposition products | : Normal combustion forms carbon dioxide, water vapor and ma produce carbon monoxide, other hydrocarbons and hydrocarbon oxidation products (ketones, aldehydes, organic acids) depending on temperature and air availability. Incomplete combustion can also produce formaldehyde. |
| CTION 6: Accidental release | measures |
| | |
| Personal precautions | : Sweep up to prevent slipping hazard. Avoid breathing dust. |
| | Avoid dust formation. |
| Environmental precautions | Avoid dust formation.Do not contaminate surface water. Prevent product from entering drains. |
| Environmental precautions Methods for cleaning up | : Do not contaminate surface water. Prevent product from |
| | : Do not contaminate surface water. Prevent product from entering drains. |
| Methods for cleaning up | Do not contaminate surface water. Prevent product from entering drains. Clean up promptly by sweeping or vacuum. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). |
| Methods for cleaning up Additional advice | Do not contaminate surface water. Prevent product from entering drains. Clean up promptly by sweeping or vacuum. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). |
| Methods for cleaning up Additional advice | Do not contaminate surface water. Prevent product from entering drains. Clean up promptly by sweeping or vacuum. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Use good housekeeping for safe handling of the product. Kee out of water sources and sewers. Spilled pellets may create a slipping 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. At elevated temperatures (>350°F, >177°C), polyethylene can release vapors and gases, which are irritating to the mucous membranes of the eyes, mouth, |
| Methods for cleaning up Additional advice CTION 7: Handling and stora Handling | Do not contaminate surface water. Prevent product from entering drains. Clean up promptly by sweeping or vacuum. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Use good housekeeping for safe handling of the product. Kee out of water sources and sewers. Spilled pellets may create a slipping 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. At elevated temperatures (>350°F, >177°C), polyethylene can release vapors and gases, which |

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| Marlex® D139FK Polye | eth | ylene |
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| | | epidemiological evidence, formaldehyde has been listed as a carcinogen. Following all recommendations within this SDS should minimize exposure to thermal processing emissions. |
| Advice on protection against fire and explosion | : | Treat as a solid that can burn. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. |
| Storage | | |
| Requirements for storage areas and containers | : | Keep in a dry place. Keep in a well-ventilated place. |
| Advice on common storage | : | Do not store together with oxidizing and self-igniting products. |
| | | |

SECTION 8: Exposure controls/personal protection

Engineering measures

Consider the potential hazards of this material (see Section 2), 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.

Personal protective equipment

| Respiratory protection : | No respiratory protection is normally required. If heated material generates vapor or fumes that are not adequately controlled by ventilation, wear an appropriate respirator. Use the following elements for air-purifying respirators: Organic Vapor and Formaldehyde. Use a positive pressure, air- supplying respirator if there is potential for uncontrolled release, aerosolization, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection. Dust safety masks are recommended when the dust concentration is excessive. |
|----------------------------|--|
| Eye protection : | Use of safety glasses with side shields for solid handling is good industrial practice. If this material is heated, wear chemical goggles or safety glasses with side shields or a face shield. If there is potential for dust, use chemical goggles. |
| Skin and body protection : | At ambient temperatures use of clean and protective clothing is good industrial practice. If the material is heated or molten, wear thermally insulated, heat-resistant gloves that are able to withstand the temperature of the molten product. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate. |
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SECTION 9: Physical and chemical properties

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| Appearance | | |
|---|---|---|
| Form Physical state Color Odor Odor Threshold | : | Pellets solid Opaque Mild to no odor No data available |
| Safety data | | |
| Flash point | : | No data available |
| Lower explosion limit | : | Not applicable |
| Upper explosion limit | : | Not applicable |
| Autoignition temperature | : | No data available |
| Thermal decomposition | : | Low molecular weight hydrocarbons, alcohols, aldehydes, acids and ketones can be formed during thermal processing |
| рН | : | Not applicable |
| Melting point/range | : | 90-140°C (194-284°F) |
| Freezing point | | Not applicable |
| Initial boiling point and boiling range | | |
| Vapor pressure | : | Not applicable |
| Relative density | : | Not applicable |
| Density | : | 0.91 - 0.97 g/cm3 Please refer to the Technical Data Sheet (TDS) for more detailed information relating to the nominal physical properties, including density, of this polyethylene resin grade. |
| Water solubility | : | negligible |
| Partition coefficient: n- octanol/water | : | No data available |
| Solubility in other solvents | : | No data available |
| Viscosity, dynamic | : | Not applicable |
| Viscosity, kinematic | : | Not applicable |
| Relative vapor density | : | Not applicable |
| Evaporation rate | : | Not applicable |

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| CTION 10: Stability and reactivity | | | |
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| | | | |
| Reactivity | : This material is considered non-reactive under normal ambient and anticipated storage and handling conditions of temperature and pressure. | | |
| Chemical stability | : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. | | |
| Possibility of hazardous rea | ctions | | |
| Hazardous reactions | : Hazardous reactions: None known. | | |
| Conditions to avoid | : Avoid prolonged storage at elevated temperature. | | |
| Materials to avoid | : Avoid contact with strong oxidizing agents. | | |
| Thermal decomposition | : Low molecular weight hydrocarbons, alcohols, aldehydes, acids and ketones can be formed during thermal processing. | | |
| Hazardous decomposition products | : Normal combustion forms carbon dioxide, water vapor and may produce carbon monoxide, other hydrocarbons and hydrocarbon oxidation products (ketones, aldehydes, organic acids) depending on temperature and air availability. Incomplete combustion can also produce formaldehyde. | | |
| Other data | : No decomposition if stored and applied as directed. | | |
| CTION 11: Toxicological infor | mation | | |
| Marlex® D139FK Polyethyle Acute oral toxicity | | | |
| Marlex® D139FK Polyethyle Acute inhalation toxicity | | | |
| Marlex® D139FK Polyethyle Acute dermal toxicity | | | |
| Marlex® D139FK Polyethyle Skin irritation | | | |
| Marlex® D139FK Polyethyle Eye irritation | ne : No eye irritation | | |
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| Marlex® D139FK Polyethyle Sensitization | ne : Did not cause sensitization on laboratory animals. | | |
| Marlex® D139FK Polyethyle Further information | This product contains POLYMERIZED OLEFINS. During thermal processing (>350°F, >177°C) polyolefins can release vapors and gases (aldehydes,ketones and organic acids) which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs. Generally these irritant effects are all transitory. However, prolonged exposure to irritating off-gases can lead to pulmonary edema. Formaldehyde (an aldehyde) has been classified as a carcinogen based on animal data and limited epidemiological evidence. | | |
| CTION 12: Ecological informa | tion | | |
| | | | |
| Ecotoxicity effects | | | |
| Toxicity to fish | : Not applicable | | |
| Toxicity to daphnia and other aquatic invertebrates | : No data available | | |
| Biodegradability | : This material is not expected to be readily biodegradable. | | |
| Elimination information (persis | stence and degradability) | | |
| Bioaccumulation | : Does not bioaccumulate. | | |
| Mobility | : The product is insoluble and floats on water. | | |
| Results of PBT assessment | : Non-classified vPvB substance | | |
| Additional ecological information | : This material is not expected to be harmful to aquatic organisms., Fish or birds may eat pellets which may obstruct their digestive tracts. | | |
| Ecotoxicology Assessment | | | |
| Short-term (acute) aquatic hazard | : This product has no known ecotoxicological effects. | | |
| Long-term (chronic) aquatic hazard | : This product has no known ecotoxicological effects. | | |
| CTION 13: Disposal considera | ations | | |
| The information in this SDS pe | ertains only to the product as shipped. | | |
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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 shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION) NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS) NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION) NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE)) NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR

TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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SECTION 15: Regulatory information

| Notification status Europe REACH Switzerland CH INV United States of America (USA) TSCA Canada DSL Australia AICS New Zealand NZIoC Japan ENCS Korea KECI | | This product is in full compliance according to REACH regulation 1907/2006/EC. On the inventory, or in compliance with the inventory On or in compliance with the active portion of the TSCA inventory All components of this product are on the Canadian DSL On the inventory, or in compliance with the inventory On the inventory, or in compliance with the inventory On the inventory, or in compliance with the inventory On the inventory, or in compliance with the inventory A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance or the exported amount does not exceed the minimum threshold quantity of the non-registered substance(s). |
|--|---|--|
| Philippines PICCS | : | On the inventory, or in compliance with the inventory |
| China IECSC | : | On the inventory, or in compliance with the inventory |
| Taiwan TCSI | : | On the inventory, or in compliance with the inventory |

SECTION 16: Other information

Further information

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

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.

| Key or legend to abbreviations and acronyms used in the safety data sheet | | | | | | |
|---|--|-------|---|--|--|--|
| ACGIH | American Conference of Government Industrial Hygienists | LD50 | Lethal Dose 50% | | | |
| AICS | Australia, Inventory of Chemical Substances | LOAEL | Lowest Observed Adverse Effect Level | | | |
| DSL | Canada, Domestic Substances List | NFPA | National Fire Protection Agency | | | |
| NDSL Canada, Non-Domestic Substances List | | NIOSH | National Institute for Occupational Safety & Health | | | |
| CNS | Central Nervous System | NTP | National Toxicology Program | | | |
| CAS | Chemical Abstract Service | NZIoC | New Zealand Inventory of Chemicals | | | |
| EC50 | Effective Concentration | NOAEL | No Observable Adverse Effect Level | | | |
| EC50 | Effective Concentration 50% | NOEC | No Observed Effect Concentration | | | |
| EGEST | EOSCA Generic Exposure Scenario Tool | OSHA | Occupational Safety & Health Administration | | | |

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| EOSCA | European Oilfield Specialty Chemicals Association | PEL | Permissible Exposure Limit |
|--------|---|-------|--|
| EINECS | European Inventory of Existing Chemical Substances | PICCS | Philippines Inventory of Commercial Chemical Substances |
| MAK | Germany Maximum Concentration | PRNT | Presumed Not Toxic |
| GHS | Globally Harmonized System | RCRA | Resource Conservation Recovery Act |
| >= | Greater Than or Equal To | STEL | Short-term Exposure Limit |
| IC50 | Inhibition Concentration 50% | SARA | Superfund Amendments and Reauthorization Act. |
| IARC | International Agency for Research on Cancer | TLV | Threshold Limit Value |
| IECSC | Inventory of Existing Chemical Substances in China | TWA | Time Weighted Average |
| ENCS | Japan, Inventory of Existing and New Chemical Substances | TSCA | Toxic Substance Control Act |
| KECI | Korea, Existing Chemical Inventory | UVCB | Unknown or Variable Composition, Complex Reaction Products, and Biological Materials |
| <= | Less Than or Equal To | WHMIS | Workplace Hazardous Materials Information System |
| LC50 | Lethal Concentration 50% | | |