SECTION 1  PRODUCT AND COMPANY IDENTIFICATION

Performance Pipe (PE Pipe and Fittings: Various Colors)

Product Use: Conveyance of liquids, gases and other media.
Synonyms: Polyethylene Plastic DriscoPlex® Pipe and Fittings
Product CAS No.: Mixture

Company Identification:
Performance Pipe, A Division of
Chevron Phillips Chemical Company LP
5085 W Park Blvd, Ste 500
PlanoTX 75093
Chevron Phillips Chemicals International N.V.
Brusselsesteenweg 355
B-3090 Overijse
Belgium

Product Information:
MSDS Requests:  1 - (800) 852-5530
Technical Information: 1 - (800) 527-0662
Responsible Party: Product Safety Group
Email:msds@cpchem.com

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  HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Colored plastic (various colors)
NFPA RATINGS:
Health: 0  Flammability: 0  Reactivity: 0

GHS Classification and Labeling:
Not hazardous. No hazards have been determined using GHS criteria.
IMMEDIATE HEALTH EFFECTS:

Eye: If this material is heated, thermal burns may result from eye contact. Not expected to cause prolonged or significant eye irritation.

Skin: If this material is heated, thermal burns may result from skin contact. Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. 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: Not expected to be harmful if inhaled. If this material is heated, fumes may be unpleasant and produce nausea and irritation of the upper respiratory tract.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>AMOUNT</th>
<th>EINECS / ELINCS</th>
<th>SYM</th>
<th>R-Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene</td>
<td>9002-88-4</td>
<td>&gt; 96 % weight</td>
<td>EXEMPT</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Hexene Copolymer</td>
<td>25213-02-9</td>
<td>&gt; 96 % weight</td>
<td>EXEMPT</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Butene Copolymer</td>
<td>25087-34-7</td>
<td>&gt; 96 % weight</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Carbon Black</td>
<td>1333-86-4</td>
<td>0 - 4 % weight</td>
<td>215-609-9</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>1344-37-2</td>
<td>0 - 1 % weight</td>
<td>215-693-7</td>
<td>T, N</td>
<td>R62, R50/53, R40, R33, R61</td>
</tr>
</tbody>
</table>

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling / Peak</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>May Include: Carbon Black</td>
<td>ACGIH</td>
<td>3.5 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Carbon Black</td>
<td>German MAK</td>
<td>6 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Carbon Black</td>
<td>OSHA PEL</td>
<td>3.5 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>ACGIH</td>
<td>.01 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>German MAK</td>
<td>.1 mg/m3</td>
<td>NA</td>
<td>4</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>OSHA SP</td>
<td>.05 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>ACGIH</td>
<td>3 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>German MAK</td>
<td>6 mg/m3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Butene Copolymer</td>
<td>ACGIH</td>
<td>Not Established</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Hexene Copolymer</td>
<td>ACGIH</td>
<td>Not Established</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST AID MEASURES

Eye: 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: 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

**FIRE CLASSIFICATION:**
Classification (29 CFR 1910.1200): Not flammable or combustible. This material will burn although it is not easily ignited.

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

**FLAMMABLE PROPERTIES:**
- Flashpoint: NA
- Autoignition: NA
- Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

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

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** Material will not burn unless preheated. Clear fire area of all non-emergency personnel. Only enter confined fire space with full gear, including a positive pressure, NIOSH-approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure. If possible, water should be applied as a spray from a fogging nozzle since this is a surface burning material. The application of high velocity water will spread the burning surface layer. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Incomplete combustion can also produce formaldehyde. Normal combustion forms carbon dioxide, water vapor and may produce carbon monoxide, original monomer, other hydrocarbons and hydrocarbon oxidation products, depending on temperature and air availability. Combustion may form: Carbon Dioxide, Carbon Monoxide

### SECTION 6  ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** If heated material is spilled, allow it to cool before proceeding with disposal methods.

**Reporting:** U.S.A. regulations may 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 of heated material with eyes, skin, and clothing. Avoid breathing vapor or fumes from heated material.

**Unusual Handling Hazards:** Potentially toxic/irritating fumes may be evolved from heated material. At temperatures (>350°F, >177°C), polyethylenes can release vapors and gases, which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs. These substances may include acetaldehyde, acetone, acetic acid, formic acid,
formaldehyde and acrolein. Based on animal data and limited epidemiological evidence, NTP, IARC (2A), and OSHA have listed formaldehyde as a probable human carcinogen. Following all recommendations within this MSDS should minimize exposure to thermal processing emissions.

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. 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: Organic Vapor and Formaldehyde.

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling/Peak</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>May Include: Carbon Black</td>
<td>ACGIH</td>
<td>3.5 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Carbon Black</td>
<td>German MAK</td>
<td>6 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Carbon Black</td>
<td>OSHA PEL</td>
<td>3.5 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>ACGIH</td>
<td>.01 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>German MAK</td>
<td>.1 mg/m³</td>
<td>NA</td>
<td>4</td>
<td>NA</td>
</tr>
<tr>
<td>May Include: Lead Chromate Pigment</td>
<td>OSHA SP</td>
<td>.05 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>ACGIH</td>
<td>3 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>German MAK</td>
<td>6 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Butene Copolymer</td>
<td>ACGIH</td>
<td>Not Established</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Polyethylene Hexene Copolymer</td>
<td>ACGIH</td>
<td>Not Established</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Colored plastic (various colors)
Autoignition: NA
Boiling Point: NA
Density: 0.91 - 0.97 g/cm³
Evaporation Rate: NDA
Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

Revision Number: 4.00
Revision Date: 6/25/2009
Performance Pipe (PE Pipe and Fittings: Various Colors)
MSDS: 6371
Flashpoint: NA
Molecular Formula: Mixture
Molecular Weight: NA
Melting Point: 100°C (212°F) - 135°C (275°F)
Octanol / Water Partition Coefficient: log-Kow: NDA
pH: NA
Pour Point: NDA
Solubility (in water): Insoluble in water.
Specific Gravity: 0.91 - 1.02
Vapor Pressure: NA
Vapor Density (Air=1): NA
Viscosity: NDA
Percent Volatile: NDA

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: heating above recommended processing temperature
Incompatibility With Other Materials: None.
Hazardous Decomposition Products: Carbon Oxides.
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11  TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS:
Acute Oral Toxicity: LD50 / rat / 7950 mg/kg
Acute Dermal Toxicity: LD50 / not known
Acute Inhalation Toxicity: LC50 / not known
Eye Irritation: Polyethylene: This material is not expected to be irritating to the eyes.
Skin Irritation: This material is not expected to be irritating to the skin.
Sensitization: Dermal - not a sensitizer / human

ADDITIONAL TOXICOLOGY 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 probable human carcinogen by NTP, IARC (2A), and OSHA based on animal data and limited epidemiological evidence. Pigments containing carbon black, lead chromate, nickel, antimony, or titanium compounds may have been incorporated into this product. The International Agency for Research on Cancer (IARC) has classified carbon black as a Group 2B carcinogen (possibly carcinogenic to humans) based on sufficient evidence in animals and inadequate evidence in humans. However, the pigments in this product are bound in a polymer matrix which severely limits its extractability, bioavailability and toxicity. The lead chromate pigment is also silica-encapsulated as well as bound in the polymer matrix. None of these pigments is likely to cause adverse health effects under recommended conditions of use.

SECTION 12  ECOLOGICAL INFORMATION
ECOTOXICITY:
This material is not expected to be harmful to aquatic organisms.

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 as manufactured is a non hazardous waste but may be contaminated upon use. If this material must be discarded, depending on its use and application, it may meet the criteria of a hazardous waste as defined by the 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 accurate determinations. If this material is subsequently classified as a hazardous waste, federal law requires disposal at a permitted 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 MSDS and the bill of lading.

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:
The following components of this material are found on the regulatory lists indicated.

Polyethylene
May Include: Carbon Black 1, 3, 4, 5, 6, 27, 45
May Include: Lead Chromate Pigment 1, 3, 4, 5, 6, 25, 26, 30, 38, 39, 45, 46

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

CHEMICAL INVENTORY LISTINGS:
AUSTRALIA YES (AUS)
CANADA YES (DSL)
CHINA YES (IECSC)
EUROPEAN UNION NO - Exempt (EINECS/ELINCS)
JAPAN YES (ENCS)
KOREA YES (ECL)
PHILIPPINES YES (PICCS)
UNITED STATES YES (TSCA)

EU LABELING:
Symbols:
NA - Not Applicable

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 0 Flammability: 0 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).
ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

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

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.