1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PE3408 (HDPE) Pipe & Fittings (Various Colors)

COMPANY IDENTIFICATION: Performance Pipe, a Division of Chevron Phillips Chemical Company LP
2929 North Central Expressway #300
Richardson, TX. 75080

EMERGENCY TELEPHONE NUMBERS:

- HEALTH (24 hr): (800)231-0623 or (510)231-0623 (International)
- TRANSPORTATION (24 hr): CHEMTREC (800)424-9300 or (703)527-3887
- Emergency Information Centers are located in U.S.A.
- Int'l collect calls accepted

PRODUCT INFORMATION: (972) 705-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % PE3408 (HDPE) Pipe & Fittings (Various Colors)

CONTAINING

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>AMOUNT</th>
<th>LIMIT/QTY</th>
<th>AGENCY/TILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYETHYLENE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Name: ETHENE, HOMOPOLYMER</td>
<td>&gt; 96.00%</td>
<td>NONE</td>
<td>NA</td>
</tr>
<tr>
<td>CAS9002884</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OR

| POLYETHYLENE-BUTENE COPOLYMER    |             |           |               |
| Chemical Name: 1-BUTENE, POLYMER WITH ETHENE | > 96.00%    | NONE      | NA            |
| CAS25087347                      |             |           |               |

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POLYETHYLENE-HEXENE COPOLYMER
Chemical Name: 1-HEXENE, POLYMER WITH ETHENE
CAS25213029 > 96.00% NONE NA

ADDITIVES INCLUDING THE FOLLOWING

LEAD CHROMATE PIGMENT
Chemical Name: C.I. PIGMENT YELLOW 34
CAS1344372 < 1.00% NONE NA

CARBON-BLACK
Chemical Name: CARBON-BLACK
CAS1333864 < 4.00% 3.5 mg/m3 ACGIH TWA
3.5 mg/m3 OSHA PEL

COMPOSITION COMMENT:
All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

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3. HAZARDS IDENTIFICATION

******************* EMERGENCY OVERVIEW *******************

Colored plastic (red, white, blue, grey, black, orange)

******************* 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.

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.

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.

SIGNS AND SYMPTOMS OF EXPOSURE:
Thermal burns to the eye: may include pain, tearing, reddening, swelling, and impaired vision. Thermal burns to the skin: may include pain or feeling of heat, discoloration, swelling, and blistering. Respiratory irritation: may include coughing and difficulty breathing.

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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 or mineral oil is recommended for removal of this material from the skin.

**INGESTION:**
No specific first aid measures are required because this material is not expected to be harmful if swallowed.

**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.

### 5. FIRE FIGHTING MEASURES

**FIRE CLASSIFICATION:**
Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

**FLAMMABLE PROPERTIES:**
- **FLASH POINT:** NA
- **AUTOIGNITION:** NA
- **FLAMMABILITY LIMITS (% by volume in air):** Lower: NA  Upper: NA

**EXTINGUISHING MEDIA:**
- CO₂, dry chemical, foam and water fog

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

**FIRE FIGHTING INSTRUCTIONS:**
This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

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.

**COMBUSTION PRODUCTS:**
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.

### 6. ACCIDENTAL RELEASE MEASURES

**CHEMTREC EMERGENCY NUMBER (24 hr):** (800)424-9300 or (703)527-3887
International Collect Calls Accepted

**ACCIDENTAL RELEASE MEASURES:**
Not applicable.
7. HANDLING AND STORAGE

Avoid contact of heated material with eyes, skin, and clothing. Avoid breathing vapor or fumes from heated material.

Improper or careless handling of these products can result in serious personal injury or possibly death, especially during loading, unloading, movement or installation. Please take all necessary precautions and follow manufacturer's published procedures for safely handling these products.

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
Use in a well-ventilated area. If heated material generates vapor, or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure. Ventilation requirements must be locally determined. If handling results in dust generation, special ventilation may be needed to ensure that dust exposure does not exceed the OSHA PEL for nuisance dust.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
No special eye protection is normally required. If this material is heated, wear chemical goggles and a face shield if engineering controls or work practices are not adequate to prevent eye contact.

SKIN PROTECTION:
No special protective clothing is normally necessary. 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:
No respiratory protection is normally required. If heated material generates vapor or fumes that are not adequately controlled by ventilation, wear a NIOSH approved respirator. Use the following
9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Colored plastic (red, white, blue, grey, black, orange)
pH: NA
VAPOR PRESSURE: NA
VAPOR DENSITY (AIR=1): NA
BOILING POINT: NA
MELTING POINT: 122C (252F)
SOLUBILITY: Insoluble in water
SPECIFIC GRAVITY: 0.95
DENSITY: 0.95 g/cm3
EVAPORATION RATE: 0
PERCENT VOLATILE (VOL): 0%

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
Low molecular weight hydrocarbons, alcohols, aldehydes, acids and ketones can be formed during thermal processing.

CHEMICAL STABILITY:
Stable.

CONDITIONS TO AVOID:
Do not heat without adequate ventilation.

INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. Avoid contact with organic solvents. May react with free halogens.

HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
The eye irritation hazard is based on data for a similar material.

SKIN EFFECTS:
The skin irritation hazard is based on data for a similar material. The acute dermal toxicity is based on data for a similar material.

ACUTE ORAL EFFECTS:
The acute oral toxicity is based on data for a similar material.

**ACUTE INHALATION EFFECTS:**
The acute respiratory toxicity is based on data for a similar material.

**ADDITIONAL TOXICOLOGY INFORMATION:**
This product contains polymerized ethylene. During thermal processing, this polymer can degrade. The three variables which control its degradation are the temperature, the length of time at that temperature, and the amount of oxygen available. Depending on the local processing conditions, a variety of low molecular weight hydrocarbons, alcohols, aldehydes, acids, and ketones can be formed. These materials are respiratory irritants. Prolonged and repeated breathing of fume components has been shown to cause other adverse health effects. Exposure to processing emissions should be minimized by following all recommendations in this MSDS.

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.

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**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.

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**13. DISPOSAL CONSIDERATIONS**

Contact local environmental or health authorities for approved disposal of this material.

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**14. TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT SHIPPING NAME:** NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT

**DOT HAZARD CLASS:** NOT APPLICABLE
15. REGULATORY INFORMATION

SARA 311 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

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REGULATORY LISTS SEARCHED:

01=SARA 313
02=MASS RTK
03=NTP Carcinogen
04=CA Prop 65-Carcin
05=CA Prop 65-Repro Tox
06=IARC Group 1
07=IARC Group 2A
08=IARC Group 2B
09=SARA 302/304
10=PA RTK
11=NJ RTK
12=CERCLA 302.4
13=MN RTK
14=ACGIH TWA
15=ACGIH STEL
16=ACGIH Calc TLV
17=OSHA PEL
18=DOT Marine Pollutant
19=Chevron TWA
20=EPA Carcinogen
21=DOT 302/304
22=TSCA Sect 5(a)(2)
23=TSCA Sect 6
24=TSCA Sect 12(b)
25=TSCA Sect 8(a)
26=TSCA Sect 8(d)
27=TSCA Sect 4(a)
28=Canadian WHMIS
29=OSHA CEILING
30=Chevron STEL

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

CARBON-BLACK
  is found on lists: 02,08,10,11,13,14,17,28,
C.I. PIGMENT YELLOW 34
  is found on lists: 01,03,04,05,10,11,28,

16. OTHER INFORMATION

NFPA RATINGS: Health 0; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 0; Flammability 1; Reactivity 0;
(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) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
This revision updates Sections 1 and 3.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:
TLV - Threshold Limit Value  TWA - Time Weighted Average
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 modification 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.

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