



Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Plexco® Flame Retardant Polyethylene Tubing

Product Use: Pneumatic Tubing or Fiber Pathway
Synonyms: Polyethylene Plastic Plexco® Tubing
Product Cas No.: Mixture

Company Identification:
 Performance Pipe, A Division of
 Chevron Phillips Chemical Company LP
 5085 W Park Blvd, Ste 500
 PlanoTX 75093

Product Information:
 MSDS Requests: 1 - (800) 852-5530
 Technical Information: 1 - (800) 527-0662

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
Polyethylene Butene Copolymer	25087-34-7	> 75.0 % weight	NA	NA	NA
Antimonytrioxide	1309-64-4	< 4 % weight	215-175-0	Xn	R40
Carbon Black	1333-86-4	< 4 % weight	NA	NA	NA
Decabromobiphenyl Oxide	1163-19-5	< 1 % weight	214-604-9	NA	NA

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Antimonytrioxide	ACGIH	Not Established	NA	NA	NA
Carbon Black	ACGIH	3.5 mg/m ³	NA	NA	NA
Carbon Black	German MAK	6 mg/m ³	NA	NA	NA

Carbon Black	OSHA PEL	3.5 mg/m3	NA	NA	NA
Decabromobiphenyl Oxide	ACGIH	Not Established	NA	NA	NA
Polyethylene Butene Copolymer	CPCHEM	Not Established	NA	NA	NA

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Black Plastic

- FORMALDEHYDE MAY BE PRODUCED AT ELEVATED TEMPERATURE.

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. Contact with the skin is not expected to cause an allergic skin response. 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: 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 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:

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

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: 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 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 (>350F, >177C), 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:

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Antimonytrioxide	ACGIH	Not Established	NA	NA	NA
Carbon Black	ACGIH	3.5 mg/m ³	NA	NA	NA
Carbon Black	German MAK	6 mg/m ³	NA	NA	NA
Carbon Black	OSHA PEL	3.5 mg/m ³	NA	NA	NA
Decabromobiphenyl Oxide	ACGIH	Not Established	NA	NA	NA
Polyethylene Butene Copolymer	CPCHEM	Not Established	NA	NA	NA

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Black Plastic

pH: NA

VAPOR PRESSURE: NA

VAPOR DENSITY (AIR=1): NA

BOILING POINT: NA

SOLUBILITY (in water): Insoluble in water.

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

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.

Sensitization: Dermal - not a sensitizer / human

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains POLYMERIZED OLEFINS.

During thermal processing (>350F, >177C) 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 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 |

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

- | | |
|-------------------------|----------------------------------|
| Antimonytrioxide | 1, 3, 4, 5, 6, 9, 26, 38, 45, 46 |
| Carbon Black | 1, 3, 4, 5, 6, 27, 45 |
| Decabromobiphenyl Oxide | 3, 4, 5, 6, 38, 39, 40 |

CERCLA REPORTABLE QUANTITIES(RQ)/SARA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

Component	Component RQ	Component TPQ	Product RQ
Antimonytrioxide	1000 lbs	None	25000 lbs

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 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).

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.