



August 7, 2017

# PFR-18

*Extremely Flexible, Abrasion-Resistant, Polyurethane Film, 18 Mil*

Manufactured By:



 7150 W. Erie St, Chandler, AZ 85226

 [sales@zippertubing.com](mailto:sales@zippertubing.com)

 [zippertubing.com](http://zippertubing.com)

 (855) 289-1874



The following pages identify the Safety Data requirements for the materials comprising the Zippertubing end-item product stated above.

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**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

**Product Name** • PFR-18

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Relevant identified use(s)** • Used in a broad range of industrial, commercial and consumer applications requiring one or more of the following attributes, chemical resistance, strength, resiliency and elastic recovery.

**Use(s) advised against** • Possible thermal decomposition products: carbon monoxide, carbon dioxide, hydrogen cyanide isocyanates, nitrogen oxides.

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer** • The Zippertubing Co.  
7150 W. Erie St  
Chandler, AZ 85226

**Telephone (General)** • 480.285.3900

**1.4 Emergency telephone number**

**Manufacturer** • 480.285.3900

**Section 2: Hazards Identification****EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**2.1 Classification of the substance or mixture**

**CLP** • Not classified

**DSD/DPD** • Not classified

**2.2 Label Elements**

**CLP**  
**Hazard statements** • No label element(s) required

**DSD/DPD**  
**Risk phrases** • No label element(s) required

## 2.3 Other Hazards

### CLP

- This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

### DSD/DPD

- Under European Directive 1999/45/EC these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

## UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

### 2.1 Classification of the substance or mixture

#### UN GHS

- Not classified

### 2.2 Label elements

#### UN GHS

**Hazard statements** • No label element(s) required

### 2.3 Other hazards

#### UN GHS

- Under United Nations Globally Harmonized System for the Classification and Labeling of Hazardous Chemicals (GHS) this product is exempt from regulation as a manufactured article.

## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

#### OSHA HCS 2012

- Not classified

### 2.2 Label elements

#### OSHA HCS 2012

**Hazard statements** • No label element(s) required

### 2.3 Other hazards

#### OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.

## Canada

According to: WHMIS

### 2.1 Classification of the substance or mixture

#### WHMIS

- Not classified

### 2.2 Label elements

#### WHMIS

- No label element(s) required.

### 2.3 Other hazards

#### WHMIS

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

- Material does not meet the criteria of a substance.

### 3.2 Mixtures

Composition		
Chemical Name	Identifiers	%
Polyether aromatic resin	NDA	91%
Antimony oxide	CAS:1309-64-4 EC Number:215-175-0 EU Index:051-005-00-X	5% TO 9.9%
Carbon Black	CAS:1333-86-4 EC Number:215-609-9	0.1% TO 0.9%

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

#### Inhalation

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

#### Skin

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If burned by contact with hot material, cool molten material adhering to skin as rapidly as possible with water. Removal of solidified molten material from skin requires medical assistance. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

#### Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

#### Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

- Under normal conditions of use, no health effects are expected.

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

- No specific actions or treatments recommended related to exposure to this material.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

**Suitable Extinguishing Media** • Carbon Dioxide, Foam, Dry Chemical, and Water.

**Unsuitable Extinguishing Media** • No data available.

### 5.2 Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards** • None known.

**Hazardous Combustion Products** • No data available

### 5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Use water to cool materials and containers exposed to fire.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.
- Emergency Procedures**
- No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

### 6.2 Environmental precautions

- Avoid release to the environment.

### 6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- As rolled film this material should not result in spills. However, scrap and excess material should be placed in suitable containers for disposal in a licensed facility.

### 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

- Handling**
- Use good safety and industrial hygiene practices.

### 7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a cool, dry place. Keep away from incompatible materials.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA; 0.1 mg/m <sup>3</sup> TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m <sup>3</sup> TWA
Antimony oxide	TWAs	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>	0.5 mg/m <sup>3</sup> TWA (as Sb) <i>as Antimony compounds</i>

### 8.2 Exposure controls

- Engineering Measures/Controls**
- No special requirements under ordinary conditions of use. When product is heated local exhaust is advised.
- Personal Protective Equipment**
- Respiratory**
- No special requirements under ordinary conditions of use and with adequate

- Eye/Face** ventilation.
- Normal industrial eye protection practices should be employed. No special equipment is required.
- Skin/Body**
- Gloves as required to handle hot material. No special equipment required for cool product.
- Environmental Exposure Controls**
- Follow best practice for site management and disposal of waste.

**Key to abbreviations**

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

**Section 9 - Physical and Chemical Properties****9.1 Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Solid	Appearance/Description	Black plastic film with no odor.
Color	Black	Odor	Odorless
Odor Threshold	Data lacking		
<b>General Properties</b>			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking		
<b>Volatility</b>			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Wt.)	0 %
VOC (Vol.)	0 %		
<b>Flammability</b>			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
<b>Environmental</b>			
Octanol/Water Partition coefficient	Data lacking		

**9.2 Other Information**

- No additional physical and chemical parameters noted.

**Section 10: Stability and Reactivity****10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

- Stable under normal temperatures and pressures.

**10.3 Possibility of hazardous reactions**

- Hazardous polymerization will not occur.

**10.4 Conditions to avoid**

- Excess heat.

**10.5 Incompatible materials**

- Strong oxidizing materials.

**10.6 Hazardous decomposition products**

- Smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion. may also include isocyanates and small amounts of hydrogen cyanide. Hydrogen chloride and chlorinated hydrocarbons will also form organic acids.

**Section 11 - Toxicological Information****11.1 Information on toxicological effects**

GHS Properties	Classification
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

UN GHS • Data lacking

**Potential Health Effects****Inhalation**

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

**Skin**

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

**Eye**

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

**Ingestion**

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

**Carcinogenic Effects**

- Due to the form of the product, exposure to the potentially carcinogenic components is not expected.

Carcinogenic Effects		
	CAS	IARC
Carbon Black	1333-86-4	Group 2B-Possible Carcinogen
Antimony oxide	1309-64-4	Group 2B-Possible Carcinogen

**Section 12 - Ecological Information****12.1 Toxicity**

- Material data lacking.

**12.2 Persistence and degradability**

- Material data lacking.

**12.3 Bioaccumulative potential**

- Material data lacking.

**12.4 Mobility in Soil**

- No data available

**12.5 Results of PBT and vPvB assessment**

- PBT and vPvB assessment has not been conducted.

**12.6 Other adverse effects**

- No studies have been found.

**Section 13 - Disposal Considerations****13.1 Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.



## Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Data lacking.

## Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Antimony oxide	1309-64-4	Yes	No	Yes	No	Yes
Carbon Black	1333-86-4	Yes	No	Yes	Yes	Yes

## Canada

## Labor

## Canada - WHMIS - Classifications of Substances

• Carbon Black

1333-86-4

D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.)

• Antimony oxide

1309-64-4

D2A

## Canada - WHMIS - Ingredient Disclosure List

• Carbon Black

1333-86-4

1 %

• Antimony oxide

1309-64-4

1 %

## Environment

## Canada - CEPA - Priority Substances List

• Carbon Black

1333-86-4

Not Listed

• Antimony oxide

1309-64-4

Not Listed

## United States

**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**Environment****U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	1000 lb final RQ; 454 kg final RQ

**U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Carbon Black	1333-86-4	carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)
• Antimony oxide	1309-64-4	carcinogen, initial date 10/1/90

**U.S. - California - Proposition 65 - Developmental Toxicity**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

• Carbon Black	1333-86-4	Not Listed
• Antimony oxide	1309-64-4	Not Listed

**15.2 Chemical Safety Assessment**

- Chemical Safety Assessment is not required.

**15.3 Other Information**

- WARNING: This product contains a chemical known to the State of California to cause cancer.