TECHFLEX Inc.

# Material Safety Data Sheet

MSDS#: **FR-302**
Revised: **3/10/2002**

## GENERAL INFORMATION

**Manufacturer:**
Techflex, Inc.
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**Common Name, Trade Name or Specification:**

# FLEXO PET FR

## 1. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

Techflex FLEXO PET FR is a tough, lightweight braided expandable sleeving used to oversleeve and protect wires, wire harnesses, cable assemblies and hoses. Braided from flame retardant polyester monofilament, FLEXO PET FR increases cut-through strength and abrasion resistance of electrical and thermal insulating surfaces. ***It is recognized by Underwriters Laboratories as a VW-1 compoment.***

Although several of the ingredients used to formulate this product may be hazardous in their raw state, the manufacturing process results in a solid, infusible form, binding and otherwise rendering the final product inert. We have identified all the ingredients below present in quantities greater than 1% (0.1% for carcinogens) that may be released from the product by overheating, burning, machining, abrasion or riveting.

This information provides minimum criteria for safe usage and handling of this product. Companies using this product should develop their own occupational health program to protect employees from injury or adverse health effects.

| Component | CAS Number | % | OSHA PEL | ACGIH TLV |
|---|---|---|---|---|
| Antimony Trioxide | 1327-33-9 | <30 | .5mg/cu.m. | .5mg/cu.m. |
| FLEXO PET FR is in the form of braided extruded monofilaments wherein the above ingredients are encapsulated by thermoplastic polyester. This product is therefore not considered hazardous according to OSHA Regulation 29 CFR 1910-1000. | | | | |
| Thermoplastic Polyester | | <30 | N/E | N/E |
| Organic Flame Retardant | | <45 | N/E | N/E |

## 2. PHYSICAL & CHEMICAL CHARACTERISTICS

**Boiling Point:** N/A **Melting Point:** 240-250C **Specific Gravity:** 1.5 **Form:** Solid
**Solubility in Water:** Insoluble **Water Reactive:** None **Evaporation Rate:** N/A
**Vapor Pressure (mm Hg and Temperature):** N/A
**Vapor Density (Air=1):** N/A **Appearance and Odor:** Colored tubular braided monofilament sleeves, odorless

## 3. FIRE AND EXPLOSION HAZARD DATA

**Auto Ignition Temperature:** This product is inherently flame resistant but may ignite at temperatures exceeding 1,112F in an oxygen enriched atmosphere.
**Flammable Limits in Air:** **LEL:** N/A **UEL:** N/A
**Extinguisher Media:** Water fog, foam, carbon dioxide, dry chemical. Use appropriate media type for surrounding fire. Product is a flame retardant.
**Special Fire Fighting Procedures:** Use a positive pressure, self contained breathing apparatus to prevent exposure to hazardous decomposition products produced under fire conditions.
**Unusual Fire & Explosion Hazards:** Toxic vapors may be released under fire conditions.

## 4. REACTIVITY HAZARD DATA

**Stability:** Stable Conditions to Avoid: Temperatures above 300C for prolonged periods
**Incompatability:** Oxidizing agents, acids and bases
**Hazardous Decomposition Products:** Hydrogen Bromide, Bromine, Carbon Monoxide(CO) and Carbon Dioxide($CO_2$).
**Hazardous Polymerization:** Will not occur. **Conditions to Avoid:** None

## 5. HEALTH HAZARD DATA

**Carcinogenicity:**

| | NTP Listed | IARC Listed | OSHA Listed |
|---|---|---|---|
| Thermoplastic Polyester | No | No | No |
| Antimony Trioxide | No | No | No |
| Organic Flame Retardant | No | No | No |

**Exposure Hazards:**

| | |
|---|---|
| Thermoplastic Polyester | None Known |
| Organic Flame Retardant | None Known |
| Antimony Trioxide | Inhalation Hazards: No serious health risks reported from exposure other than a possible change in blood pressure. |

Prolonged exposure to material dust may cause irritation or corneal injury by mechanical action. May also result in coughing, dizziness, headache, nausea, vomiting, diarrhea, stomach cramps and insomnia.
Vapors generated above 300C may cause skin, eye and lung irritation.

**Emergency First Aid Procedures:** Seek medical assistance for further treatment, observation and support if necessary.
**Eye Contact:** Flush eyes with tap water for five minutes to remove dust particles. Consult a physician.
**Skin Contact:** Treat for minor cuts, abrasions or burns.
**Inhalation:** Dust from abnormal abrasion or vapors fron overheating may cause irritation. Remove to fresh air. If not breathing, give artificial respiration. Call a physician.
**Ingestion:** Not likely. Considered physiologically inert.

## 6. CONTROL AND PROTECTIVE MEASURES

**Respiratory Protection:** Mechanical filter type respirator in dusty environments. Supplied air respirators for vapors.
**Protective Gloves:** Cloth gloves
**Eye Protection:** Safety glasses for dust.
**Other Protective Clothing and Equipment:** None
**Ventilation:** Any operations which may produce dust, including machining, grinding, riveting or abrading of this product should be adaquately ventilated to prevent inhalation of of dust.

## 7. SPECIAL PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

**Release or Spill:** Scrap monofilament may present a slipping hazard. Sweep up and dispose of accordingly.
**Waste Disposal Methods:** Incinerate or dispose in an approved landfill in accordance with all applicable federal, state and local regulations.
**Handling and Storage:** Do not heat above 250C. Avoid breating fumes at elevated temperatures. Wet mop or vacuum any accumulated dust. Do not use compressed air to blow dust. Molten material may cause thermal burns.

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