

## *Safety Data Sheet*

### SECTION 1 : IDENTIFICATION

**1. Product Identifier:** Heat-Shrinkable Tubing

**Other means of identification:**  
**SDS #** PAN-006

#### **2. Supplier details**

- Supplier Address
- Address: Panduit Corporation, 18900 Panduit Drive, Tinley Park, IL 60487
- Telephone number: 708-532-1800

#### **3. Product use**

- Recommended use : Typical uses of heat-shrinkable tubing include primary electrical insulation, EMI/RFI Shielding, cable jacketing and repair, strain relief, component encapsulation, packaging, environmental/mechanical protection, and cable joining, splicing, and termination in commercial and military/aerospace electronic applications.

### SECTION 2 : HAZARD IDENTIFICATION

This product is article, and exempt from hazard classification according to ISHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is not hazardous during proper installation as directed by product installation guides. But it may emit hazardous thermal decomposition and combustion byproducts if overheated to degradation in common with most organic materials.

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**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS #</b>	<b>%</b>
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*Not Applicable - Articles*

Base polymer materials include polyolefin or fluoropolymers. The product may be coated with adhesives which are based on olefin or polyamides.

Some products may contain Antimony Trioxide for flame retardant, which is known to the State of California to cause cancer. (Cas # 1309-64-4)

**SECTION 4 : FIRST AID MEASURES****1. Eye contact**

- None under normal use conditions. If eye irritation occurs, flush with clean water for 15 minutes while holding eyelids apart. Seek medical attention.

**2. Skin contact**

- First aid is normally not required. After handling product, it is good work practice to wash your hands. If molten material contacts skin, cool area in water immediately. DO NOT attempt to remove material from the skin. Treat as a burn, and seek medical attention.

**3. Inhalation**

- If respiratory symptoms or other symptoms of exposure develop, move victim to fresh air. If symptoms persist, seek medical attention. If breathing difficulties develop, qualified personnel should administer oxygen. If victim is not breathing, immediately begin artificial respiration. Keep victim warm and quiet and seek immediate medical attention.

**4. Ingestion**

- Not a normal route of exposure. However, if swallowed and symptoms develop,, seek medical attention.

**SECTION 5 : FIRE-FIGHTING MEASURES****1. Extinguishing media**

- Use carbon dioxide, water, dry chemical or foam. Selection of extinguishing media should be based upon the size of the fire, the firefighting training/experience of the individual attempting to extinguish or control the fire, and the packaging materials exposed to the fire.

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**2. Hazardous combustion products**

- In common with most organic materials, thermal degradation and combustion byproducts may be toxic and should not be inhaled. Thermal degradation is not significant at temperatures achieved during proper installation, most significantly if the product burns, the thermal degradation and combustion byproducts will depend on the base polymer used and may include, but are not limited to; carbon monoxide, carbon dioxide, organic acids, aldehydes (including formaldehyde), acetic acid, low molecular weight hydrocarbons, silicon dioxide, hydrogen chloride, hydrogen fluoride, hydrogen bromide, fluoro-olefins, and oxides of nitrogen, phosphorus and sulfur.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES****1. Personal precautions, protective equipment and emergency procedures**

-If there is a danger of molten material contacting the skin or eyes, use eye/face protection and heat-resistant glove.

**2. Environmental precautions**

- *Not applicable*

**3. Methods and material for containment and cleaning up**

- *Not applicable*

**SECTION 7 : HANDLING AND STORAGE****1. Precautions for safe handling**

- Avoid any vapors given off if the product is heated to decomposition, as shown by darkening and browning of the sleeve. Avoid contact with molten material. Heat-resistant gloves are required if hot products are handled after installation. Do not consume food, beverages, or tobacco in the immediate work area. Wash hands before eating, drinking or smoking.

- Follow the appropriate installation instructions and application guides Do not touch hot surfaces on installation equipment

- If product chars and burns, immediately stop heating. Avoid inhaling any fumes which may be given off under such circumstances. Allow any vapor to disperse and ventilated before continuing work in the area.

**2. Condition for safe storage including any incompatibilities**

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- No special storage requirements

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 1. Exposure guideline/ Engineering control

- This product, as supplied, does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.
- Provide general or local exhaust ventilation systems.

### 2. Personal protection

- Eye protection: Use safety glasses with side shield or goggles to prevent contact with eyes, as appropriate to the given operation.
- Skin protection: Use heat resistant rated gloves to prevent skin contact; as appropriate to the given operation. If it is necessary to handle grossly overheated or fire-damaged products, wear natural rubber gloves to prevent possible contact with potentially corrosive acid residues.
- Fluoropolymers will degrade upon prolonged heating or in a fire, liberating hydrogen fluoride, HF. This gas is toxic if inhaled or it comes into contact with moist skin. If skin contact occurs, apply calcium gluconate to area of hydrofluoric acid exposure and seek immediate medical attention.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

- **General physical form:** Solid
- **Appearance:** Plastic tubing, molded parts in a variety of shapes, sizes & colors
- **Color:** Various
- **Odor:** Not determined
- **Odor Threshold:** Not determined
  
- **pH:** Not applicable
- **Melting point:** Not determined
- **Boling point:** Not applicable
- **Flash point:** Not applicable
- **Evaporation rate:** Not applicable
- **Flammability:** Not determined
- **Upper flammability limit:** Not applicable
- **Lower flammability limit:** Not applicable

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- **Vapor pressure:** Not applicable
- **Vapor density:** Not applicable
- **Specific gravity:** 0.90 ~ 1.50
- **Water solubility:** insoluble
- **Solubility in other solvents:** Not determined
- **Partition coefficient:** Not applicable
- **Auto-ignition temperature:** Not determined
- **Decomposition temperature:** Not determined
- **Kinematic viscosity:** Not applicable
- **Dynamic viscosity:** Not applicable
- **Explosive properties:** Not applicable
- **Oxidizing properties:** Not applicable

## SECTION 10 : STABILITY AND REACTIVITY

- **Reactivity:** Not reactive under normal condition
- **Chemical stability:** Stable under normal condition
- **Possibility of hazardous reactions:** None under normal condition
- **Hazardous polymerization:** None under normal condition
- **Conditions to avoid:** Avoid overheating of product
- **Incompatible material:** None known based on information supplied
- **Hazardous decomposition product:** See hazardous combustion product (*Section 5*)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 1. Information on the likely routes of exposure

- Inhalation: In common with most organic materials, thermal degradation and combustion byproducts may be toxic and should not be inhaled
- Ingestion: Ingestion of this product is highly unlikely. There is insufficient information available on this material to predict the effects from ingestion
- Skin contact: This product is not expected to be a skin irritant. Contact with the molten material may cause thermal burns. No harmful effects are expected from skin absorption of this product
- Eye contact: Contact with molten material may cause thermal burns

### 2. Numerical measures of toxicity

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- Not determined

### 3. Carcinogenicity

- This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. Some products may contain Antimony Trioxide(Cas # 1309-64-4), Which is known to the State of California to cause cancer.

## SECTION 12 : ECOLOGICAL INFORMATION

- Biodegradation: No data available
- Bioaccumulation/mobility: No data available
- Aquatic toxicity: No data available

## SECTION 13 : DISPOSAL CONSIDERATIONS

- Waste disposal: Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Package disposal: Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Special instructions: Not applicable

## SECTION 14 : TRANSPORT INFORMATION

Transportation must be in accordance with applicable federal, state, provincial and local regulations. This product is not regulated as a hazardous material.

## SECTION 15 : REGULATORY INFORMATION

- TSCA: This product is an article as defined by TSCA regulations, and is exempt from TSCA inventory requirements.
- UL Federal regulations: Not applicable
- UL State/California proposition 65: Some products contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm; Antimony trioxide (Cas #. 1309-64-4)
- EU-EINECS: Not applicable

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**SECTION 16 : OTHER INFORMATION**

**1. Last revised date:** July 15, 2020 (New format)

**2. Disclaimer**

- This data sheet is provided as customer request because Heat shrinkable tubing and molded products are articles. The Article is exempt, are not subject to the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200).

- The information in this safety data sheet has been prepared with proper care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing relevant laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material, and should be used only as a guide. We make no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise

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