

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION

#### 1.1: PRODUCT IDENTIFIER

Product Name: Flame-Retardant Heat-Shrink Tubing

#### 1.2: INTENDED USE OF THE PRODUCT:

Heat-shrink tubing

#### 1.3: NAME, ADDRESS, AND TELEPHONE OF THE RESPONSIBLE PARTY COMPANY

Manufacturer: ShenZhen Woer Heat-Shrinkable Material Co., Ltd.

Address: Woer Building, Xinwei Industry Park, Xili Town, Shenzhen City, China

Telephone: 86-755-28299167

Fax: 86-755-28299164

#### 1.4: EMERGENCY TELEPHONE NUMBER

1 (800) 222-1222

### SECTION 2: HAZARD(S) IDENTIFICATION

#### 2.1: CLASSIFICATION OF THE SUSTABNCE OR MIXTURE

##### CLASSIFICATION (GHS-US)

Flammable

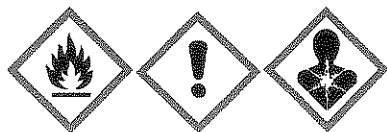
Eye Damage/Irritation

Lung Damage/Irriation

#### 2.2: LABEL ELEMENTS

##### GHS-US LABELING

##### HAZARD PICTOGRAMS (GHS-US)



##### SIGNAL WORD

Danger

SYMBOLS

Flame

Exclamation Mark

Health Hazard

PRECAUTIONARY STATEMENTS (GHS-US)

Product will flare up for a moment and flameout; will produce a little smoke.

Causes damage to organs through prolonged or repeated exposure: respiratory system

Smoke causes eye irritation.

Harmful if inhaled.

PRECAUTIONARY STATEMENTS:

GENERAL:

Keep out of reach of children.

PREVENTION:

Do not breathe fumes/gas/vapors.

Do not eat, drink, or smoke when using this product.

Smoke can irritate lungs and eyes.

RESPONSE:

Get medical advice/attention if you feel unwell.

DISPOSAL:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Purpose	% By Weight	Manufacturer	C.A.S. No.
Polyolefin (CH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub>	Main Material	50%	China Sinopec	9002-88-4

Magnesium Hydroxide Mg(OH) <sub>2</sub>	Flame-Retardant Material	35%	Jinhaohui Material Co., Ltd.	1309-42-8
DBDPE C <sub>14</sub> H <sub>4</sub> Br <sub>10</sub>	Flame-Retardant Material	10%	Shanghai Haiyi Co., Ltd.	84852-53-9
Color Material Grain	Pigment / Colorant Material	5%	Huawangcai Co., Ltd.	-
Printing Ink	Printing Ink	-	Shanghai Jiexin Co., Ltd.	-

## SECTION 4: FIRST AID MEASURES

### 4.1: DESCRIPTION OF FIRST AID MEASURES

#### Inhalation:

Thermal degradation and combustion and combustion byproducts may be toxic and should not be inhaled. Remove person to fresh air. If you feel unwell, get medical attention.

#### 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:

Flush with large amounts of cool water. Remove contact lenses, if applicable and easy to do, and continue flushing. Obtain medical attention if irritation persists.

#### If Swallowed:

Ingestion of this product is highly unlikely. No need for first aid is anticipated.

### 4.2: MOST IMPORANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Thermal degradation and combustion and combustion byproducts may be toxic and should not be inhaled. Avoid inhalation. If inhaled, remove person to fresh air. If symptoms persist, get medical attention.

### 4.3: INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT REQUIRED

Not applicable

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1: SUITABLE EXTINGUISHING MEDIA

In case of fire: Use dust farina powder.

## 5.2: SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None inherent in this product.

## HAZARDOUS DECOMPOSITION OR BY-PRODUCTS

<u>Substance</u>	<u>Condition</u>
Carbon Monoxide	During Combustion
Carbon Dioxide	During Combustion

## 5.3: SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1: PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Observe precautions from other sections.

### 6.2: ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment.

### 6.3: METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP;

Not applicable.

## SECTION 7: HANDLING AND STORAGE

### 7.1: PRECAUTIONS FOR SAFE HANDLING

Using an oven or heat gun, the tube will shrink between 70-125°C. Avoid any vapors given off if the product is heated to decomposition, as shown by a 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, beverage, or tobacco in the immediate work area. Wash hands before eating, drinking, or smoking. Avoid heating products beyond temperatures required for normal installation.

Installation: Follow the appropriate installation instructions and application guides to ensure that installation is performed properly. Ensure that any local requirements / legislation concerning the use of hand-held electrical equipment are observed. When using IR (infrared) heating devices, observe specific instructions. Do not touch hot surfaces on installation equipment.

### 7.2: CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITIES:

Protect from sunlight. Store away from heat.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1: CONTROL PARAMETERS

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### 8.2: EXPOSURE CONTROLS

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### 8.2.1: ENGINEERING CONTROLS

Provide general or local exhaust ventilation systems.

#### 8.2.2: PERSONAL PROTECTIVE EQUIPMENT (PPE)

##### EYE / FACE PROTECTION

Use safety glasses with side shield or goggles to prevent contact with eyes, as appropriate to the given operation.

##### SKIN / HAND PROTECTION

Avoid contact with skin. Use heat resistant rated gloves to prevent skin contact. 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.

##### RESPIRATORY PROTECTION

If installation occurs in a confined, unventilated area, NIOSH/MSHA-approved respirators are recommended.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1: INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Solid
Appearance:	Plastic tubing; molded parts in a variety of shapes, sizes, and colors
Color:	Various
Odor:	Not determined
Odor Threshold:	Not determined
Tensile Strength:	>10.4 MPa

Elongation %:	>200%
Tensile Strength After Aging:	>7.3 MPa
Elongation % After Aging:	>100%
Dielectric Withstand at 300V:	No breakdown for 1500V
Dielectric Withstand at 600V:	No breakdown for 2500V
Volume Resistance:	>1X10 <sup>14</sup> Ωxcm
Anti-Corrosive:	PASS
Copper Stability:	PASS
Flammability:	VW-1

## SECTION 10: STABILITY AND REACTIVITY

### 10.1: REACTIVITY

Not reactive under normal conditions.

### 10.2: CHEMICAL STABILITY

Stable under recommended storage conditions.

### 10.3: POSSIBILITY OF HAZARDOUS REACTIONS

None under normal processing.

### 10.4: CONDITIONS TO AVOID

Avoid overheating of product.

### 10.5: IMCOMPATIBLE MATERIALS

None known based on information supplied.

### 10.6: HAZARDOUS DECOMPOSITION PRODUCTS

See hazardous combustion products (Section 5).

Smoke produced may be hazardous. Avoid inhalation.

## **SECTION 11: TOXICOLOGICAL INFORMATION:**

### **11.1: INFORMATION ON LIKELY ROUTES OF EXPOSURE:**

**Eye Contact:**

Contact with molten materials may cause thermal burns. Smoke may irritate eyes.

**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.

**Inhalation:**

Thermal degradation and combustion and combustion byproducts may be toxic and should not be inhaled.

**Ingestion:**

Ingestion of this product is highly unlikely.

**11.2: INFORMATION ON PHYSICAL, CHEMICAL, AND TOXICOLOGICAL EFFECTS:**

Please see section four of this SDS for symptoms.

**11.3: DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:**

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

**11.3: NUMERICAL MEASURES OF TOXICITY:**

Not determined.

**SECTION 12: ECOLOGICAL INFORMATION****12.1: TOXICITY:**

Product does not break down in natural conditions; therefore it is not expected to be hazardous to the environment.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1: WASTE TREATMENT METHODS**

Disposal of waste should be in accordance with applicable international, national, regional, and local laws and regulations.

Disposal of contaminated packaging should be in accordance with applicable international, national, regional, and local laws and regulations.

#### SECTION 14: TRANSPORT INFORMATION

14.1: In accordance with DOT

14.2: In accordance with IMDG

14.3: In accordance with IATA

#### SECTION 15: REGULATORY INFORMATION

15.1: U.S. Federal Regulations

California Prop. 65: This product does not contain any substances regulated under California Prop. 65.

15.2: US State Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations.

#### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION:

Date of Preparation: 11.12.15

Supersedes Date: 5.7.10

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFT 1910.1200.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.