

## Material Safety Data Sheet

### 1. Product and company identification

<b>Product NO.</b>	H-5(3X)/(4X)
<b>Product name</b>	Adhesive Lined ,Flexible Tubing ,3:1 or 4:1 Shrink ratio
<b>Manufacture's name</b>	Hongshang Heat Shrinkable Co. Ltd
<b>Manufacture's address</b>	2nd Industrial Area, NanKenCun , Bantian, Buji, Shenzhen 518129, P.R.China
<b>Information telephone number</b>	86-755-28483809
<b>Emergency telephone number</b>	86-755-28483008
<b>Issue date</b>	Dec/12/13
<b>Product Use</b>	Electrical

### 2. Ingredients

#### Polymer description

Article-No. / Material-No.	Substances CAS-No.	Basic substances name
EVAC		
	24937-78-8	Ethylene-vinyl acetate copolymer
	1309-64-4	Antimontrioxide
	1309-42-8	Magnesium hydroxide
	1344-28-1	Aluminium oxide
	1314-13-2	Zinc oxide
	84852-53-9	1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]
	6683-19-8	Pentaerythritol tetrakis(3-(3,5-ditert-butyl-4-hydroxyphenyl)propionate)

#### ADHESIVE DESCRIPTION

Article-No. / Material-No.	Substances CAS-No.	Basic substances name
Hot melt adhesive	69430-35-9	Hydrocarbons, C6-20, polymers ,hydrogenated
	9002-88-4	polyethylene
	6683-19-8	Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)Propionate)
	24937-78-8	Ethylene-vinyl acetate copolymer

### 3. Hazards identification

#### 3.1 Emergency overview

Hazards due to contact with the product at high temperature .In case of decomposition, releases dangerous products.

Note: When decomposed by high heat, or by smoking tobacco or cigarettes contaminated with polymer dust, may cause flu-like illness with fever and chills which will pass within 36-48 hours.

<b>Specific Physical Form</b>	Solid
<b>Odor, Color, Grade</b>	Soild
<b>General Physical Form</b>	Solid
<b>Immediate health, physical, and environmental hazards</b>	No health effects are expected.

## 3.2 Potential health effects

<b>Eye Contact</b>	Contact with the eyes during product use is not expected to result in significant irritation.
<b>Inhalation</b>	No health effects are expected.
<b>Ingestion</b>	No health effects are expected.

## 4. First aid measures

### 4.1 First aid procedures

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

<b>Eye Contact</b>	No need for first aid is anticipated.
<b>Skin Contact</b>	Negligible for unheated product. In case of contact with molten polymer, cool rapidly with cold water without attempting to peel from the skin. Obtain medical treatment for burns.
<b>Inhalation</b>	No need for first aid is anticipated.
<b>If Swallowed</b>	No need for first aid is anticipated.

## 5. Fire fighting measures

### 5.1 Flammable properties

<b>Flash point</b>	Not applicable
<b>Flammability</b>	Flame retardant
<b>Auto-flammability</b>	No data
<b>Danger of explosion</b>	Negligible
<b>Oxidizing properties</b>	Non-oxidizer

#### Common extinguishing means

- In case of fire in close proximity, most means of extinguishing are acceptable.

#### Specific hazards

- In a fire, the polymer is considered auto-extinguishing and so is unable to propagate fire.
- Strong energy source necessary for ignition.
- Formation of dangerous gas/vapors in case of combustion.

#### Protective measures in case of intervention

- Evacuate all nonessential personnel.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- In all cases wear self-contained breathing apparatus.
- Wear chemically resistant over-suits.
- After intervention, proceed to clean the equipment (take a shower, remove clothing carefully, clean and check).

#### Other precautions

- If safe to do so, remove the exposed containers.
- After the fire, proceed rapidly to clean the surfaces exposed to the fumes in order to limit the damage to the equipment.
- As for any fire, ventilate and clean the rooms before re-entry.

### 5.2 Extinguishing media

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 Protection of fire fighters

#### Special Fire Fighting Procedures

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

## Unusual Fire and Explosion Hazards

No unusual fire or explosion hazards are anticipated.

**Note: See stability and reactivity (Section 10) for hazardous combustion and thermal decomposition information.**

## 6. Accidental release measures

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

### 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### Clean-up methods

Observe precautions from other sections. Call Hongshang for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with water.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## 7. Handling and storage

### 7.1 Handling

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid contact with oxidizing agents.

### 7.2 Storage

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidizing agents.

## 8. Exposure controls/personal protection

### 8.1 Engineering controls

Not applicable.

### 8.2 Personal protective equipment (PPE)

#### Engineering controls

- Follow the protective measures given in section 7.
- Provide local ventilation suitable for the product decomposition risk (see section 9).
- Maintain employee exposures to levels below the applicable exposure limits.

#### Respiratory protection

- In case of dust use NIOSH approved dust respirator.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions.

#### Hand protection

- Protective gloves against molten polymer.
- Protective gloves, if risk of decomposition

#### Eye protection

- Wear safety glasses/protective goggles.

**Skin protection**

- Only necessary to protect against molten polymer.

## 9. Physical and chemical properties

**Appearance** tubing

**Odor** odorless

**Change of state**

- Melting point/range: from 80 to 100 °C
- Boiling point/range (1013 mbars): Not applicable

**Vapor pressure**

- Not applicable

**Density**

- Bulk density
- From 1.3 to 1.35 g/cm<sup>3</sup>

**Vapor density (air=1)**

- Not applicable

**Solubility**

- Insoluble in :Water
- Slightly soluble in :Boiled xylene

**pH**

- Not applicable

**Partition coefficient P (n-octanol/water)**

- Not applicable

**Decomposition temperature**

- > 250 °C

## 10. Stability and reactivity

**Stability**

- Stable under certain conditions (see below).
- Decomposition produces dangerous gases upon contact with flames, or hot metallic surfaces.

**Conditions to avoid**

- Heating the product to its decomposition temperature (see section 9).
- Naked flames, sparks.

**Materials to avoid**

- Negligible

**Hazardous decomposition products**

- Particulates of carbon
- Carbon monoxide

## 11. Toxicological information

**Comments**

- No specific data
- Biologically inert and little toxicity in bulk form.

**Note:**

**Decomposition risk** When decomposed by high heat, or by smoking tobacco or cigarettes contaminated with polymer dust a flu-like illness with fevers and chills may result which will pass within 36-48 hours.

## 12. Ecological information

**Ecotoxicological information**

Not determined.

**Chemical fate information**

Not determined.

## 13. Disposal considerations

**Waste Disposal Method**

Dispose of waste product in a facility permitted to accept chemical waste. As a disposal alternative, incinerate in an industrial or commercial facility in the presence of a combustible material.

**EPA Hazardous Waste Number (RCRA)**

Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

## 14. Transport information

LH-A100-0977-3

## 15. Regulatory information

**US FEDERAL REGULATIONS**

Contact Hongshang for more information.

**311/312 Hazard Categories**

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - NO Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA)

**STATE REGULATIONS**

Contact Hongshang for more information.

**CHEMICAL INVENTORIES**

Contact Hongshang for more information.

**INTERNATIONAL REGULATIONS**

Contact Hongshang for more information.

**This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## 16. Other information

**NFPA Hazard Classification****Health: 2 Flammability: 2 Reactivity: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities. No revision information is available.

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