



Polyolefin Heat Shrink

Material Safety

Section 1 - Identification of Product

PRODUCT NAME: Polyolefin Heat Shrink

OTHER/GENERIC NAMES: Environment Friendly Flame-retardant Heat Shrink Tubing

FORM: Irradiated Polyolefin with Inner Diameter supplied from 3/64" to 2"

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Section 2 - Composition/Information on Ingredients

INGREDIENT NAME	PERCENTAGE	CAS NUMBER	FUNCTION
Polyolefin	50%	9002-88-4	Main Material
Magnesium Hydroxide	35%	1309-42-8	Flame Retardants
Brominated flame retardants	10%		Flame Retardants
Pigment	5%		Colourants

Section 3- Hazardous Identification

EMERGENCY OVERVIEW: It will self-distinguish in a short time after being ignited. A little fume will give off and have slight harm on respiratory passage of the human body.

POTENTIAL HEALTH HAZARDS

Influence on Environment: Pollutes the air when it burns

Hazards in Physical and Chemical Characteristics: Normally it is in tubular shape, and shrink at 70-125°C, which perhaps is harmful.

Hazards generated when burning : It will burn for a short period of time after being ignited.

Special Hazards When roasted or fumigated, the smoke given off will have impact on eyes and respiratory system and is harmful to the human body.

Main symptoms: Weeping eyes, sneezing, coughing, etc. These symptoms can be relieved by breathing fresh air.

Section 4 - First Aid Measures

SKIN:	No damage to skin in normal contact. As skin is easily to be cut by the tubes, the operators are suggested to wear gloves.
EYES:	Not anticipated under recommended usage conditions. If necessary, flush eyes with plenty of water. If symptoms persist or injury is suspected, seek medical advice.
INHALATION:	Not anticipated under recommended usage conditions.
INGESTION:	Not anticipated under recommended usage conditions.
ADVICE TO PHYSICIAN:	Those who have suffered severe damage in respiratory system should keep on inhaling fresh air to relieve the symptom.

Section 5 - Fire Fighting Measures

FLAMMABLE PROPERTIES

FLASH POINT:	Does not flash.
FLASH POINT METHOD:	N/A
IGNITION TEMPERATURE:	Not known
UPPER FLAME LIMIT (volume % in Air):	N/A
LOWER FLAME LIMIT (volume % in Air):	N/A
OXYGEN INDEX:	>95%

EXTINGUISHING MEDIA: Dry Powder Extinguisher should be used in order to put out the fire in a short time.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Small amount of smoke will give off when the tubes burn, which will impact the respiratory system of human body.

Section 6 - Accidental Release Measures

IN CASE OF SPILLS OR OTHER RELEASE: Sweep or pick up and dispose of in a solid waste container.

Section 7 - Handling and Storage

NORMAL HANDLING: The tubes will shrink when heated by oven or heat gun.

STORAGE RECOMMENDATIONS: Pack the tubes with cartons properly and place them at a shady place and at normal temperature.

Section 8 - Exposure Controls/Personal Protection

VENTILATION: Ensure good ventilation or exhaust if there is the possibility of fumes being evolved. Not required if material is used within specified processing parameters.

FIRE AND EXPLOSION: Not applicable.

PERSONAL PROTECTIVE EQUIPMENT: None required if material is used within specified processing parameters. Normal safety equipment should always be used in an industrial environment.

ADDITIONAL RECOMMENDATIONS: Heat resistant clothing and skin covering when working with hot product. Do not smoke while handling material. Keep tobacco products away from sources of contamination: hands and clothes.

EXPOSURE GUIDELINES/LIMITS: Not applicable.

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS: Not available.

Section 9 - Physical and Chemical Properties

Properties		Test Method	Standard	
Physical Properties	Tensile strength /MPa	GB/T1040	≥10.4	
	Elongation/%	GB/T1040	≥200	
	Tensile strength after aging/MPa	UL 224: 158×168hr	≥7.3	
	Elongation after aging/%	UL 224: 158×168hr	≥100	
	Heat Resistance	UL 224: 250×4hr	No viscosity No Cracking	
	Cold blend	UL 224: -30×4hr	No Cracking	
Electrical Properties	Dielectric Strength(KV/mm)		GB/T1408	≥15
	Dielectric Withstand	300V	UL 224	No breakdown at 1500V
		600V	UL 224	No breakdown at 2500V
	Volume resistance/Ω·cm		GB/T1410	≥1×10 ¹⁴
Chemical Properties	Anti Corrosion		UL 224 158×168hr	PASS
	Copper stability		UL 224 158×168hr	PASS
	Flammability		UL 224	VW-1

Section 10 - Stability and Reactivity

STABILITY: Irresolvable

CONDITIONS TO AVOID: The products will shrink under high temperature.

HAZARDOUS EFFECTS UNDER SPECIAL CONDITIONS: If exposed to fire, the products will burn in a short time and give off smoke.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke

SUBSTANCE TO BE AVOIDED: Fire

Section 11 - Toxicological Information

GENERAL: No potential health hazards when used within processing guidelines.

IMMEDIATE (ACUTE) EFFECTS: None known.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: None known.

TOXICITY OF PRODUCT: Non toxic when used within recommended guidelines.

OTHER DATA: None.

Section 12 - Ecological Information

Possible effects on environment: The products are irresolvable naturally and are not harmful to animals, plants and aquatic life.

Section 13 - Disposal Considerations

The waste should be sent to a suitable waste-collection station for appropriate environmental treatment.

Section 14 - Transport Information

US DOT HAZARD CLASS: Not regulated.
US DOT ID NUMBER: Not applicable.

UN NO: Not determined
ICAO/IATA: Not regulated.

Avoid distortion by extrusion and damage by sharp edged tools.

Section 15 - Regulatory Information

Applicable regulation: UL224

Section 16 - Other Information

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