

SAFETY DATA SHEET

In Accordance with 3rd revised edition of GHS

Section 1 – Identification of the Substance and Company

Product Name	: MH-1
Product Type	: General Purpose ABS
Product Use	: Can be used to produce injection or extrusion molded articles for commercial or Industrial products.
Manufacturer	: IRPC Public Company Limited. 299 Moo 5 Sukhumvit Road Amphur Muang Rayong Thailand
Emergency Call	: +66(0) 38 802560
Website	: www.irpc.co.th, www.irpcmarket.com

Section 2 – Hazards Identification

Regulation (EC) No 1272/2008: This product is not classified as dangerous according to Regulation (EC) No 1272/2008.

GHS : Not classified as dangerous

Label elements : Not applicable

Other hazards : Not applicable

Section 3 – Composition / Information on Ingredients

Chemical name	CAS Number	EC Number	Composition
Acrylonitrile Butadiene Styrene Copolymer	9003-56-9	Polymer	97-99
Styrene	100-42-5	202-851-5	< 0.5

Product contains high molecular weight polymers, and is not expected to be chemically active under normal conditions of handling and processing.

Section 4 – First-aid Measures

Skin Exposure	: In case of skin contact with hot polymer immediately immerse in or flush with clean, cold water. If irritation develops, seek medical attention.
Eyes Exposure	: If molten material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelid open. Remove contact lenses, if worn. Get immediate medical attention.
Inhalation	: Move the exposed person to fresh air. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.
Ingestion	: No first aid procedures are required. Seek medical attention if a significant amount is swallowed.

Section 5 – Fire-fighting Measures

Suitable extinguishing agents	: Dry chemicals, foam, water, carbon dioxide, and halon. DO NOT use water jets for large fires. Avoid using direct streams of water on molten burning material
Hazards during fire-fighting	: Carbon monoxide, carbon dioxide, original monomer other hydrocarbon.
Protective equipment	: Wear self-contained respiratory protective device.

Section 6 – Accidental Release Measures

- Personal precautions** : Avoid dust formation. Avoid breathing vapors, mist or gas.
- Environmental precautions** : Discharge into the environment must be avoided.
- Cleanup** : Collect spilled material using a method that minimizes dust generation (e.g. wet methods, HEPA vacuum). Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

Section 7 – Handling and Storage

- Handling** : Exposure of polystyrene to extremely high temperatures (315 °C or higher) may cause partial decomposition. Chemicals that may be released include styrene monomer, benzene, and other hydrocarbons. Handling of pellets may form dust. Filter and ventilate dust where necessary
- Storage conditions** : Store in a cool, dry place in the original container when possible. Store below 50 °C. Keep away from moisture, excessive heat and sources of ignition. Do not place in direct sunlight

Section 8 – Exposure Controls / Personal Protection

Exposure limits

Component Name	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Styrene	OSHA PEL*	100	-	-	-
	ACGIH TLV	20	-	40	-

*OSHA PEL: Acceptable ceiling concentration (ACC) 200 ppm, maximum concentration above ACC 600 ppm

- Exposure control** : Ventilation, enclosures, or other controls may be needed to keep airborne contaminants below exposure limits.
- Personal protective equipment**
- Respiratory protection : Wear respiratory protection if ventilation is inadequate. Breathing protection device if dust is formed.
- Eye protection : Chemical workers goggles recommended.
- Protective clothing : Gloves required when handling hot material. In case of fire, wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.
- Ventilation : Provide adequate ventilation when processing material at elevated temperatures.
- Engineering Controls** : For molten materials: Provide mechanical ventilation; in general such ventilation should be provided at compounding/ converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material.

Section 9 – Physical and Chemical Properties

- Physical State** : Solid Form
- Odor and Appearance** : Pellets in natural or compounded color with characteristic odor

Boiling Point	: Not applicable
Flash Point	: Not applicable
Auto-ignition Temperature	: Not applicable
Vapor Pressure	: Not applicable
Softening Point	: > 100 °C
Specific Gravity	: 1.04-1.05 (Water =1)
Solubility in water	: Insoluble
Solubility (Qualitative)	: Soluble in polar solvents
Partition coefficient: n-octanal	: Not applicable
pH	: Not available

Section 10 – Stability and Reactivity

Stability	: Stable in ambient temperature.
Condition to Avoid	: Avoid temperatures above 300°C.
Material to Avoid	: Avoid solvents and oxidizing agents.
Dangerous decomposition	: Carbon dioxide, carbon monoxide, hydrocarbons, dense smoke.

Section 11 – Toxicological Information

Acute toxicity

Chemical name	Route	Species	Acute Toxic Value
Styrene	Oral	Rat	LD ₅₀ 5000 mg/kg

Irritating/corrosive effects

Eye Irritation	: Prolonged contact can causes eye irritation.
Skin Irritation	: May cause skin irritation.
Respiratory Irritation	: May cause allergic respiratory response.
Ingestion Irritation	: Swallowing larger amounts may cause injury.

Section 12 – Ecological Information

Aquatic toxicity	: No relevant studies identified.
Persistence and degradability	: The product is not easily biodegradable.
Bio-accumulative potential	: Not expected to be bio-accumulative due to its insolubility in water.
Mobility in soil	: No relevant studies identified.
Other adverse effects	: Not expected to pose a significant ecological hazard.

Section 13 – Disposal Considerations

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. Dispose of by: burial in a land-fill specifically licensed to accept chemical and/or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - Transport Information

Regulatory information	UN number	Class	Packing group	Label	Proper Shipping Name
DOT	-	-	-	-	-
ADR/RID	-	-	-	-	-
IMDG CODE	-	-	-	-	-
ICAO/IATA	-	-	-	-	-

Section 15 - Regulatory Information

US Toxic Substances Control Act

All components of this product are on the TSCA Inventory.

HMIS -USA

Health - 0, Flammability - 1, Reactivity - 0

NFPA- USA

Health - 0, Flammability - 1, Reactivity - 0

European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

Canada - WHMIS

Material is not controlled under WHMIS.

Section 16 - Other Information

DOT	: Department of Transportation
ADR	: European agreement concerning the international carriage of dangerous goods by road.
RID	: Regulations concerning the international carriage of dangerous goods by rail.
IMDG - CODE	: International maritime dangerous goods code
ICAO	: International Civil Aviation Organization
IATA	: International air transport association
GHS	: Globally Harmonized System of Classification and Labeling of Chemicals
CLP	: Classification and Labeling of Packaging
NFPA	: National Fire Protection Association
HMIS	: Hazardous Materials Identification System
WHMIS	: Workplace Hazardous Materials Information System

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