

SAFETY DATA SHEET

In Accordance with 3rd revised edition of GHS

Section 1 – Identification

Product Name	: GP130
Product Type	: General Purpose
Chemical Name	: Polystyrene
Product Use	: Can be used to produce injection or extrusion molded articles for commercial or industrial products
Manufacturer	: Thai ABS Company Limited (Subsidiary of IRPC Group) 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.
Regulation (EC) No 1907/2006:	This product is compiled REACH Regulation (EC) No 1907/2006.
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	Percent weight
Polystyrene	9003-53-6	500-008-9	≥ 98

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	: Flush with water for at least 20 minutes. Seek medical attention if irritation persists.
Inhalation	: Remove person to fresh air. Assist in breathing if necessary. Seek medical attention.
Ingestion	: 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.
Hazards during fire-fighting	: Carbon monoxide, carbon dioxide.

Protective equipment : Wear self-contained respiratory protective device.

Section 6 – Accidental Release Measures

Personal precautions : Avoid dust formation and direct contact with molten material.

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/m3	ppm	mg/m3
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	: Clear and Transparent Pellets
Odor	: Characteristic odor
Boiling Point	: Not applicable
Flash Point	: Not applicable
Auto-ignition Temperature	: Not applicable
Vapor Pressure	: Not applicable
Softening Point	: > 90 °C
Specific Gravity	: 1.04 – 1.05 (water = 1)
Solubility in water	: Insoluble in water, soluble in polar solvents
Partition coefficient: n-octanal	: Not applicable
pH	: Not available

Section 10 – Stability and Reactivity

Stability	: Stable under recommended conditions of handling and storage.
Condition to Avoid	: Avoid temperatures above 300°C.
Material to Avoid	: Avoid solvents and oxidizing agents.
Dangerous decomposition	: Carbon monoxide, carbon dioxide, styrene, hydrocarbon, 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	: May causes eye irritation.
Skin Irritation	: May be harmful if absorbed through skin. May cause skin irritation.
Respiratory Irritation	: May cause allergic respiratory response.
Ingestion Irritation	: Swallowing larger amounts may cause injury.

Section 12 – Ecological Information

Eco-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

Disposal methods:

Transfer to an approved disposal area in accordance with national, state and local regulations. Recycling uncontaminated packaging recommended.

Package must be recycled in compliance with national legislation and environmental regulations.

Section 14 – Transport Information

Regulatory information	UN number	Class	Packing group	Label	Additional information
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 or are exempt from TSCA Inventory requirements under 29 CFR 1910.1200.

HMIS -USA

Health – 0, Flammability – 1, Reactivity – 0

National Fire Protection Association - 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
ACGIH	: American Conference of Governmental Industrial Hygienists
OSHA	: Occupational Safety and Health Administration
WHMIS	: Workplace Hazardous Materials Information System

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