

SAFETY DATA SHEET

SECTION 1 - Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product Name : HI650

Product Type : High Impact Polystyrene

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Can be used to produce injection articles for commercial or Industrial products.

1.3 Detail of the Supplier of the safety data sheet

Manufacturer/Supplier : IRPC Public Company Limited

Address : 299 Moo. 5 Sukhumvit Road, Amphur Muang, Rayong THAILAND

Website : www.irpc.co.th, https://polimaxx.irpc.co.th

1.4 Emergency call : +66(0) 38 802560

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture

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

2.2 Label elements

Pictogram : Not Applicable

Signal Word : Not Applicable

Hazard Statement : -

Precautionary Statement : -

2.3 Other hazards

Section 3 - Composition / Information on Ingredients

3.1 Substances

Chemical Name	CAS Number	EC Number	Percent weight	SCL, M-factor, ATE
Styrene, 1,3-butadiene copolymer	9003-55-8	Polymer	> 95	
Mineral oil (Petroleum)	Proprietary	Proprietary	< 5	
Styrene monomer (Impurities which not contribute to GHS classification or Hazard)	100-42-5	202-851-5	< 0.1	

3.2 Additional information

Section 4 - First-aid Measures

4.1 Description of first aid measures

General notes : Remove affected persons from the danger area and ensure that is the safety area.

Following inhalation : Move the exposed person to fresh air. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

Following skin contact : In case of skin contact with hot polymer immediately immerse in or flush with clean, cold water.

Following eye contact : Remove contact lenses, if worn. Gently rinse the affected eye(s) with clean, cool water for at least 15 minutes.

Following ingestion : No first aid procedures are required. Seek medical attention if a significant amount is swallowed.

Self - protection of the first aider : Please see the detail in Section 6 and Section 8

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

In the case of accident or if you feel unwell, seek medical advice immediately.

SECTION 5 - Firefighting measure

5.1 Extinguishing media

Suitable extinguishing media : Dry chemicals, foam, water, carbon dioxide and halon.

Unsuitable extinguishing media : Avoid using direct streams of water on molten burning material.

5.2 Special hazards arising from the substance or mixture

Hazards during fire-fighting : Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation products.

5.3 Protective equipment

Wear self-contained respiratory protective device.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.1.1 For non-emergency personnel

Protective equipment : Observe the usual precautionary measures for chemicals. Wear protective equipment.

Emergency procedure : Not available

6.2 Environmental precautions :

Discharge into the environment must be avoided.

6.3 Method and material for containment and cleaning up

6.3.1 For containment : Place waste in an appropriate container for disposal. Avoid the injury from the broken container.

6.3.2 For cleaning up : Collect spilled material using a method that minimizes dust generation (e.g., wet methods, HEPA vacuum).

6.3.3 Other information : Not available

6.4 Reference to other sections :

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

Section 7 - Handling and Storage

7.1 Precaution for safe handling

Protective measures : Exposure of polystyrene to extremely high temperatures (315 C or higher) may cause partial decomposition. Care should be taken during handling to prevent damage to packaging.

Measures to prevent fire : Avoid smoking, naked lights or ignition sources.

Measures to prevent aerosol and dust generation : Handling of pellets may form dust. Avoid dust generation.

Measures to protect the environment : Provide adequate ventilation. Should be implemented according to authority regulation.

Advice on general occupational hygiene : Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Provide adequate general and local exhaust ventilation.

Packaging materials : Protect containers against physical damage and check regularly for leaks.

Requirements for storage rooms and vessels : Store in a cool, dry, well-ventilated area or silo away from sources of heat, flame and sparks.

Further information on storage conditions : Keep away from moisture, excessive heat and sources of ignition. Do not place in direct sunlight.

7.3 Specific end use(s)

Recommendations : See the recommended processing condition and technical data sheet on this product for further information

Industrial sector specific solutions : No data available

SECTION 8 - Exposure controls/personal protection

8.1 Control parameters

Exposure limits :

Component Name	Reference	TWA		STEL			
		ppm	mg/m3	ppm	mg/m3		
Styrene	ACGIH TLV	20	-	40	-	-	-
	OSHA PEL	100	-	-	-	-	-

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses :

Ensure that eyewash stations and safety showers are proximal to the work-station location.

Structural measure to prevent exposure : None specific

Organizational measures to prevent exposure : No data available

Technical measures to prevent exposure : Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment

8.2.2.1 Eye and face protection : Chemical workers goggles recommended.

8.2.2.2 Skin protection : In case of fire, wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

Other skin protection : No data available

8.2.2.3 Respiratory protection : Wear respiratory protection if ventilation is inadequate. Breathing protection device if dust is formed.

8.2.3 Environmental exposure controls : Provide adequate ventilation when processing material at elevated temperatures.

Substance/mixture related measures to prevent exposure : 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.

Instruction measures to prevent exposure : None specific

Organizational measures to prevent exposure : Monitoring and control the limit of emission, water discharge, and industrial waste according to local authority.

Technical measures to prevent exposure : None specific

SECTION 9 - Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: Opaque Pellet
Odour	: Characteristic odor
Colour	:
Boiling Point	: Not Applicable
Initial Boiling Point	:
Flash Point	: Not Applicable Not Applicable
Melting Point	: Not Applicable
Vapour Pressure	: Not Applicable
Auto ignition temperature	: Not Applicable
Solubility	: Soluble in polar solvent
Viscosity	: Not Applicable Not Applicable
Upper/Lower flammability or explosive limit	: Not Applicable
pH	: Not Applicable
Relative density	: Not Applicable Not Applicable
Vapour density	:
Partition characteristics	:
Specific Gravity	: 1.04 - 1.05 (Water = 1)
Partition coefficient: n-octanol/water	: Not Applicable
Decomposition temperature	: Not Applicable
Explosive properties	: Not Applicable
Softening Point	: > 90

9.2 Other safety information :

SECTION 10 - Stability and reactivity

- 10.1 Reactivity :** Non-reactivity under normal handling and storage conditions.
- 10.2 Chemical stability :** Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions :** Non hazards under normal handling and storage conditions
- 10.4 Condition to avoid :** Avoid temperatures above 300°C.
- 10.5 Incompatible material :** Avoid solvents and oxidizing agents.
- 10.6 Hazardous decomposition products :** Carbon dioxide, carbon monoxide, hydrocarbons, dense smoke.

SECTION 11 - Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Chemical name	Route	Species	Acute Toxic Value
Styrene	Oral	Rat	LD50 5,000 mg/kg

Acute toxicity : Conclusive but not sufficient for classification.

Skin corrosion/irritation : Conclusive but not sufficient for classification.

Serious eye damage/irritation : Conclusive but not sufficient for classification.

Respiratory or skin sensitisation : No data available

Germ cell mutagenicity : Conclusive but not sufficient for classification

Carcinogenicity : Can cause carcinogenicity

Reproductive toxicity : Conclusive but not sufficient for classification

STOT-single exposure : Conclusive but not sufficient for classification

STOT-repeated exposure : Conclusive but not sufficient for classification

Aspiration hazard : Conclusive but not sufficient for classification

11.2 Irritating/corrosive effects

Eye Irritation : Prolonged contact can causes eye irritation.

Skin Irritation : May cause moderate inflammation.

Inhalation : May cause allergic respiratory response.

Ingestion : Swallowing larger amounts may cause injury.

Section 12 - Ecological Information

12.1 Toxicity : No relevant studies found.

12.2 Persistence and degradability

Abiotic Degradation : No data available

Physical and photo-chemical elimination : No data available

Biodegradation : The product is not easily biodegradable.

12.3 Bioaccumulative potential : No data available.

Partition coefficient n-octanol/water (log K_{ow}) : No data available

Bioconcentration factor (BCF) : No data available

12.4 Mobility in soil : This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Known or predicted distribution to environmental compartments : No relevant studies identified.

Surface tension : No data available.

Adsorption/Desorption : No data available

12.5 Results of PBT and vPvB assessment : No relevant studies identified.

12.6 Endocrine disrupting properties : No relevant studies identified.

12.7 Other adverse effects : This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.8 Additional information : No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal : Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Waste codes / waste designation according to LoW : No data available

13.1.2 Waste treatment-relevant information : 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)

13.1.3 Sewage disposal-relevant information : DO NOT allow wash water from cleaning or process equipment to enter drains.

13.1.4 Other disposal recommendations : No data available

Section 14 - Transport Information

Regulatory information	UN number	Classes	Packing group	Label	Additional information
DOT	Not regulated	-	-	-	
ADR/RID	Not regulated	-	-	-	
IMDG CODE	Not regulated	-	-	-	
ICAO/IATA	Not regulated	-	-	-	

Environmental hazards : not available

Special precautions for user : not available

Maritime transport in bulk according to IMO instruments : not available

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Toxic Substances Control Act : All components of this product are on the TSCA Inventory.

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.

15.2 Chemical Safety Assessment

No chemical Safety Assessment has been carried out for this substance/mixture by the supplier. Styrene has been registered according to REACH.

Section 16 - Other Information

16.1 Indication change : According to Regulations (EC) 1907/2006 (REACH), 1272/2008 (CLP), and Commission Regulation (EU) 2020/878

16.2 Abbreviation and acronyms

ADR	: European agreement concerning the international carriage of dangerous goods by road.
CLP	: Classification and Labeling of Packaging
DOT	: Department of Transportation
GHS	: Globally Harmonized System of Classification and Labeling of Chemicals
IATA	: International air transport association
ICAO	: International Civil Aviation Organization
IMDG-CODE	: International maritime dangerous goods code
LD50	: Lethal Dose, 50%
NFPA	: National Fire Protection Association
NIOSH	: The National Institute for Occupational Safety and Health
OSHA	: Occupational Safety and Health Administration
ACGIH	: American Conference of Industrial Hygienists
RID	: Regulations concerning the international carriage of dangerous goods by rail.
STEL	: Short Term Exposure Limit
TWA	: Time Weighted Average
WHMIS	: Workplace Hazardous Materials Information System

16.3 Key literature references and sources for data :

<http://echa.europa.eu/https://cameochemicals.noaa.gov>

16.4 Training advice : No data available

16.5 Further information

NFPA - USA

Health : 0 Flammability : 1 Reactivity : 0

HMIS

Health : 0 Flammability : 1 Reactivity : 0

SDS Information

GHS Revision : 10

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One or more parameters were not specified for the subreport, 'Petrochem18_Polymax', located at: C:\Web\SDS\Petrochem18_Polymax.rdlc.