

SAFETY DATA SHEET

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

1.1 Product identifier

Product Name : GP150

Product Type : General Purpose Polystyrene

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

Relevant identified uses : Can be used to produce injection or extrusion molded 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 |
|---|-------------|-------------|----------------|--------------------|
| Polystyrene | 9003-53-6 | 500-008-9 | > 97 | |
| Mineral oil | Proprietary | Proprietary | < 2.8 | |
| Additives | Proprietary | Proprietary | < 0.1 | |
| 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. Get immediate medical attention.

Following ingestion : 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

No data available

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 the appropriate protective equipment.

Emergency procedure : Implement according to procedure manual and safety data sheet.

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 : Collect in closed containers for disposal. Place waste in an appropriate container for disposal.

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 : Observe the usual precautionary measures for chemicals. Exposure of polystyrene to extremely high temperatures (315 C or higher) may cause partial decomposition.

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 : Use with adequate ventilation.
Management and monitoring according to local 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 :

Observe the chemical label during working. Appropriate protective equipment should be taken.

Structural measure to prevent exposure : Ensure that eyewash stations and safety showers are proximal to the work-station location.

Organizational measures to prevent exposure : Strictly implement according to procedure manual and safety data sheet.

Technical measures to prevent exposure : Provide adequate general and local exhaust ventilation.

8.2.2 Personal protection equipment

8.2.2.1 Eye and face protection : Chemical workers goggles recommended.

8.2.2.2 Skin protection : Gloves required when handling hot material. 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 : Suitable technology should be used.

SECTION 9 - Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---------------------------------|
| Appearance | : Clear and transparent pellets |
| 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 normal ambient temperature.

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 : Conclusive but not sufficient for classification

Germ cell mutagenicity : Conclusive but not sufficient for classification

Carcinogenicity : Conclusive but not sufficient for classification

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 : Not expected to pose a significant ecological hazard.

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

Surface tension : No data available.

Adsorption/Desorption : Spillages are unlikely to penetrate the soils.

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 : Not expected to pose a significant ecological hazard.

12.8 Additional information : No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods

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

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 : This product has not severe effect to environment.

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.

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

| | |
|-----------|--|
| ACGIH | : American Conference of Industrial Hygienists |
| 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 |
| HMIS | : Hazardous Materials Identification System |
| 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 |
| 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/>

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

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