

SAFETY DATA SHEET

Revision Date : 10 October 2019

Section 1 – Identification

Product Name : 321F
Product Type : General Purpose EPS
Product Use : Insulating material, packaging material
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

Classification according to Regulation (EC) No. 1272/2008 (CLP) and GHS Classification :

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

Pictogram : Not Applicable

Signal Word : Not applicable

Hazard Statement :

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Precautionary Statement :

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Section 3 – Composition / Information on Ingredients

Chemical Name	CAS Number	EC Number	Percent weight
Polystyrene	9003-53-6	Polymer	94-95
Pentane	109-66-0	203-692-4	5-6

Section 4 – First-aid Measures

- Skin Exposure** : Flush skin and hair with running water (and soap if available).If molten material comes in contact with the skin, cool under ice water or a running stream of water.DO NOT attempt to remove the material from the skin.Get medical attention.
- Eyes Exposure** : Flush with water for at least 20 minutes.Remove contact lenses, if worn.Get immediate medical attention.
- Inhalation** : Remove person to fresh air.Get medical attention if breathing difficulties continue.
- Ingestion** : DO NOT induce vomiting.If contamination of the mouth occurs, wash out thoroughly with water. Seek medical advice.

Section 5 – Fire-fighting Measures

- Suitable extinguishing agents** : Foam, CO₂, Dry chemical powder, water spray or fog.Avoid using direct streams of water on molten burning material.
- Hazards during fire-fighting** : Carbon monoxide (CO), carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.Carbon monoxide (CO), carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
- Protective equipment** : Wear self-contained respiratory protective device.

Section 6 – Accidental Release Measures

- Personal precautions** : Avoid breathing vapors, mist or gas.
- Environmental precautions** : Discharge into the environment must be avoided.
- Cleanup :**
Sweep/shovel up or spray with water and collect in a suitable container.Place waste in an appropriate container for disposal.

Section 7 – Handling and Storage

- Handling** : Use with adequate ventilation.Appropriate grounding is required. (Prevent against static electricity).Avoid smoking, naked lights or ignition sources.Avoid contact with eyes and skin.
- Storage conditions** : Keep separated from incompatible substances.Do not place in direct sunlight. Store in a dry place away from ignition sources and strong oxidizers.Store in cool location and ventilated place.

Section 8 – Exposure Controls / Personal Protection

Exposure limits :

Component Name	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/m3
Pentane	ACGIH TLV	1000	2950	-	-
	OSHA PEL	1000	2950	-	-

Personal protective equipment

- Respiratory protection : Wear respiratory protection if ventilation is inadequate.
- 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.
- Other protective equipment :
- Engineering Controls :

Section 9 – Physical and Chemical Properties

- Appearance** : Bead
- Odour** : Characteristic odor
- Boiling Point** : Not Applicable
- Flash Point** : 345 - 360°C
- Melting Point** : Not Applicable
- Vapour Pressure** : Not Applicable
- Auto ignition temperature** : Not Applicable
- Solubility** : Insoluble in water
- Viscosity** : Not Applicable
- Upper/Lower flammability or explosive limit** : Not Applicable
- pH** : Not Applicable
- Relative density** : Not Applicable
- Specific Gravity** : 1.04 (Water = 1)
- Partition coefficient: n-octanol/water** : Not Applicable
- Decomposition temperature** : Not Applicable
- Explosive properties** : Not Applicable
- Softening Point** : > 100 °C

Section 10 – Stability and Reactivity

- Stability** : Stable under normal ambient temperature.
- Condition to Avoid** : Avoid heat, sparks, open flames and other ignition sources. DO NOT heat without adequate ventilation.
- Material to Avoid** : Avoid solvents and oxidizing agents.
- Dangerous decomposition** : Carbon monoxide (CO), carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

Section 11 – Toxicological Information

Acute Toxicity :

Chemical name	Route	Species	Acute Toxic Value
Pentane	Oral	Rat	LD50 >2,000 mg/kg

Irritating/corrosive effects

- Eye Irritation : May cause eye irritation.
- Skin Irritation : May cause skin irritation.
- Inhalation : May cause allergic respiratory response.
- Ingestion : Swallowing larger amounts may cause injury.

Section 12 – Ecological Information





- Eco-toxicity** : No relevant studies found.
- Persistence and degradability** : The product is not easily biodegradable.
- Bio-accumulative potential** : No data available.
- Mobility in soil** : No data available.
- Other adverse effects** : No data available.

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	Classes	Packing group	Label	Additional information
DOT	2211	9	III		POLYMERIC BEADS, EXPANDABLE, evolving flammable vapor
ADR/RID	2211	9	III		POLYMERIC BEADS, EXPANDABLE, evolving flammable vapor
IMDG CODE	2211	9	III		POLYMERIC BEADS, EXPANDABLE, evolving flammable vapor
ICAO/IATA	2211	9	III		POLYMERIC BEADS, EXPANDABLE, evolving flammable vapor

Section 15 – Regulatory Information

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.

NFPA – USA

Health : 0 Flammability : 1 Reactivity : 0

HMIS

Health : 0 Flammability : 1 Reactivity : 0

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
OSHA	: Occupational Safety and Health Administration
WHMIS	: Workplace Hazardous Materials Information System

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