

SAFETY DATA SHEET

In Accordance with 4th revised edition of GHS

Section 1 – Identification

Product Name : 291L
Product Type : General Purpose
Product Description : Impregnated polystyrene with blowing agent
Chemical Name : Expandable Polystyrene (EPS)
Chemical Formula : $(C_8-H_8)_n$
Chemical Family : Thermoplastic Polymer
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

Regulation (EC) No 1272/2008: This product is not classified as dangerous according to Regulation (EC) No 1272/2008.
Directive 67/548/EEC : This product is not classified as dangerous according to EU Directive 67/548/EEC.
Regulation (EC) No 1907/2006: This product is compiled REACH Regulation (EC) No 1907/2006.
GHS : Not classified
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	Polymer	94-95
Pentane	109-66-0	203-692-4	5-6

Section 4 – First-aid Measures

General information : Clothing and shoes must be immediately removed, decontaminated
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



Date of Revision 28 January 2013

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, hydrogen cyanide.

Protective equipment : Wear self-contained respiratory protective device.

Section 6 – Accidental Release Measures

Personal precautions : Avoid inhalation.

Environmental precautions : Discharge into the environment must be avoided.

Cleanup:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Sweep/shovel up or spray with water and collect in a suitable container. Allow molten material to solidify before disposal. Avoid production of dust.

Section 7 – Handling and Storage

Handling : Ventilate for 5 min. when opening the container. Appropriate grounding is required. (Prevent against static electricity). Avoid inhalation of vapors.

Storage conditions : Keep separated from incompatible substances. Store in a tightly closed container in a cool (below 27 °C), dry place. Ventilation required.

Section 8 – Exposure Controls / Personal Protection

Exposure limits

Component Name	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/m3
Pentane	OSHA PEL	1000	2950	-	-
	ACGIH TLV	600	-	-	-

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.

Other protective equipment: N.A.

Section 9 – Physical and Chemical Properties

Physical State : Bead Form

Odor and Appearance : Bead with characteristic odor.

Softening Point : > 100 °C



Agrisen Food
Agrisen Food Co.,Ltd.



Specific Gravity : 1.04 (Water =1)
Percent Volatile (Vol. %) : Nil
Solubility in water : Insoluble
Solubility (Qualitative) : Soluble in polar solvents

Section 10 – Stability and Reactivity

Stability : Stable in ambient temperature.
Condition to Avoid : Heat, flames, sparks and other sources of ignition.
Material to Avoid : Avoid solvents and oxidizing agents.
Dangerous decomposition: Carbon monoxide, carbon dioxide, styrene, acrylonitrile, hydrocarbon, cyanide.

Section 11 – Toxicological Information

Acute Toxicity

Chemical name	Route	Species	Acute Toxic Value
Pentane	Oral	Rat	LD ₅₀ 5480 mg/kg
	Inhalation	Rat	285 gm/m ³ /4Hr

Irritating/corrosive effects

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

Section 12 – Ecological Information

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

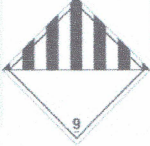

Section 13 – Disposal Considerations

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	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 or are exempt from TSCA Inventory requirements under 29 CFR 1910.1200.

SARA 313

Material is not subject to SARA 313 reporting requirements.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA.

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.

EU Directives 67/548/EEC , 1999/45/EC and Regulation (EC) No 1272/2008

The product is not classified as dangerous for supply according to the Regulation (EC) No 1272/2008 and the EC directive 67/548/EEC and 1999/45/EC.

Canada – WHMIS

Material is not controlled under WHMIS.



Section 16 – Other Information

The information in this document is based on our best present. Nevertheless, it does not constitute a guarantee for any specific product features and does not establish any a legally binding contract.

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

The information above is believed to be accurate and represents the best of our knowledge, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.66p




RoHS Certificate for

291L

On behalf of IRPC Public Company Limited, we hereby certify that Expandable Polystyrene Grade 291L complies with the Restriction of use of certain Hazardous Substances RoHS Directive 2011/65/EU (Annex II) [amended by Directive (EU) 2015/863] and its amendment directives.

The scope of this statement is within the details of the above refers to the component in RoHS certificate only. For any limitations with are part of the regulations should be consulted in details.

This information is valid until December 31, 2019

Certified by :



(Thawatchai Kassurinchai)

Technical Service and Product Development Division



Revision: January 2019

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FDA Certificate for

291L

On behalf of IRPC Public Company Limited, we hereby certify that Expandable Polystyrene Grade 291L complies with the United State 21 CFR Food and Drug Administration (FDA) Regulation part 177.1640 which allows the polymer to be used in food contact applications.

The scope of this statement is within the details of the above mentioned regulation only, and does not cover the modification, processing, and conversion of the finished product. It is the responsibility of the converter/ user of the product to determine and appropriate the regulatory suitability for food contact compliance.

This information is valid until December 31, 2019

Certified by :



(Thawatchai Kassurinchai)
Technical Service and Product Development Division



Revision: January 2019

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