

SAFETY DATA SHEET

In Accordance with 4th revised edition of GHS

Section 1 – Identification

Product Name	: POLIMAXX® HDPE – Butene Copolymer Plastic Resin
Chemical Name and Synonyms	: High density polyethylene-butene copolymer, Ethylene-butene copolymer, Poly (ethylene-co-1-butene), HDPE, PE
Chemical Formula	: (C ₂ H ₄) _n + (C ₄ H ₈) _x
Product Code	: G2855
Product Use	: Raw material for plastic industry, Resin, extrusion and compounding, plastic molding, molded articles, films and coatings
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
Polyethylene	9002-88-4	Polymer	≥ 97
Ethylene-butene Copolymer	9040-66-8	Polymer	≤ 3

Section 4 – First-aid Measures

Skin Exposure	: 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. Remove could result in severe tissue damage. Get medical attention.
Eyes Exposure	: If molten material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelid open. Remove contact lenses, if worn. Get immediate medical attention.
Inhalation	: Move the exposed person to fresh air. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.
Ingestion	: Not a probable route of exposure. If person is conscious, rinse mouth with water. Do not induce vomiting unless directed to do so by a physician.

Section 5 – Fire-fighting Measures

- Suitable extinguishing agents:** Dry chemical, foam, water fog or carbon dioxide. Avoid using direct streams of water on molten burning material
- Hazards during fire-fighting :** Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation products include
- Protective equipment :** Use a mask with universal filler. Use self-contained breathing apparatus and full protective clothing.

Section 6 – Accidental Release Measures

- Personal precautions :** Avoid inhalation and direct contact.
- 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 :** Use with adequate ventilation. Avoid dust generation. Avoid contact with eyes and skin. Accumulations of dust should be removed from settling areas.
- Storage conditions :** Store in a cool, dry, well-ventilated area or silo away from sources of heat, flame and sparks. Ventilate enclosed storage areas, such as trailers and railcars, before entering. Have emergency equipment for fires and spills readily available.

Section 8 – Exposure Controls / Personal Protection

Exposure limits

Component Name	Reference	TWA		OEL	
		ppm	mg/m3	ppm	mg/m3
Polyethylene	Italy OEL	-	10	-	-
	Japan OEL for Dusts	-	-	-	8

Personal protective equipment

- Respiratory protection :** No special respiration protection is normally required.
- Eye protection :** Wear safety glasses with side shields, goggles or face shield.
- 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

- 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 DESCRIPTION:	Opaque, translucent, colorless pellets or white fluff (powder), solid
pH:	not applicable
VAPOR PRESURE:	not applicable
VAPOR DENSITY:	not applicable
BOILING POINT:	not applicable
MELTING POINT:	110-140 °C
FLASH PINT:	340 °C (ASTM 1929)
AUTOIGNITION:	380 °C
SOLUBILITY:	Insoluble in water
SPECIFIC GRAVITY:	0.9-1.0
DENSITY:	0.9-1.0 g/cm ³
BULK DENSITY	400(powder)-600(pellet) kg/m ³
EVAPORATION RATE:	not applicable
VOLATILE MATTER (wt.):	< 0.1%
WATER ABSORPTION (wt.):	< 0.05%

Section 10 – Stability and Reactivity

- Stability** : This material is considered a stable thermoplastic, with no chemical reactivity under normal ambient and anticipated handling conditions of temperature and pressure.
- Condition to Avoid** : Avoid heating above the recommended processing temperature. DO NOT heat without adequate ventilation.
- Material to Avoid** : May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. May react with free halogens.
- Dangerous decomposition:** Small quantities of low molecular weight hydrocarbons, alcohols, aldehydes (incl. Formaldehyde), carboxylic acids, carbon oxides and ketones can be formed during thermal processing.
- Hazardous polymerization products:** Hazardous polymerization will not occur.

Section 11 – Toxicological Information

Acute Toxicity

Chemical name	Route	Species	Acute Toxic Value
Polyethylene	Oral	Rat	LD ₅₀ > 3000 mg/kg
	Inhalation	Mouse	LC ₅₀ 12000 mg/m ³ /3M

Irritating/corrosive effects

- Eye Irritation : Solid particles may cause transient irritation from mechanical abrasion
- Skin Irritation : Not expected to cause skin irritation. Molten material may cause thermal burns.
- Inhalation : Not a likely route of exposure. Process fumes may cause irritation
- Ingestion : May cause a choking hazard if swallowed.

Other information

Carcinogenic effect:

International Agency for Research on Cancer (IARC): Group3
NOT classifiable as to its carcinogenicity to humans.

Section 12 – Ecological Information

- Eco-toxicity** : No relevant studies identified.
- Persistence and degradability** : This material is not expected to be readily biodegradable.
- Bio-accumulative potential** : Product is not likely to accumulate in biological organisms.
- Mobility in soil** : No data available.
- Other adverse effects** : No data available.

Section 13 – Disposal Considerations

Disposal Methods:

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

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)

Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 – Transport Information

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

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.

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.

NFPA - USA

Health – 1, Flammability – 1, Reactivity – 0

Canada - WHMIS

This product does not meet WHMIS classification criteria.

Canada – DSL

This product is listed in DSL.

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
NFPA	:	National Fire Protection Association
WHMIS	:	Workplace Hazardous Materials Information System
DSL	:	Domestic Substances List

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