

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**PRODUCT NAME:** InnoPlus HD2401C  
**CHEMICAL NAME:** High Density Polyethylene  
**TYPICAL APPLICATION:** InnoPlus HD2401C is recommended for Beverage caps for drinking, mineral water.  
**MANUFACTURER:** PTT Global Chemical Public Company Limited  
8 Padang Rd., Map Ta Phut, Muang Rayong District,  
Rayong 21150, Thailand  
**24-HOUR EMERGENCY CONTACT:** Thailand; +66(0)-3897-6323  
+66(0)-3897-6793

### 2. HAZARDS IDENTIFICATION

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- **Classification according to Globally Harmonized System (GHS):**  
The substance is not classified as hazardous according to GHS.
- **Classification according to Regulation (EC) No 1272/2008 (CLP):**  
The substance is not classified as hazardous according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**  
The substance is not classified as hazardous according to Directive 67/548/EEC or Directive 1999/45/EC.

#### LABEL ELEMENTS

- **Labelling according to GHS:** None
- **Labelling according to Regulation (EC) No 1272/2008:** None
- **Hazard pictograms:** None
- **Signal word:** None
- **Hazard statements:** None
- **Precautionary statements :**
  - Prevention: Not Applicable
  - Response: Not Applicable
  - Storage: Not Applicable
  - Disposal: Not Applicable
- **Additional information:**
  - Pellets on the floor may cause a serious slipping hazard.
  - Skin or eye contact with hot polymer can cause thermal burns.
  - Processing the polymer at high temperatures may form vapors that irritate the eyes and respiratory tract.

### OTHER HAZARDS

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- Results of PBT and vPvB assessment
  - PBT: Not determined
  - vPvB: Not determined

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS no.	Weight %
Polyethylene	9002-88-4	>99
Additives	-	<1.0

### 4. FIRST AID MEASURES

#### INHALATION

Remove to fresh air. If patient is not breathing or breathing irregular, provide artificial respiration or oxygen. Obtain medical attention by physician if symptoms persist.

#### EYE CONTACT

Immediately flush eyes with plenty of water for several minutes. Be sure to remove any contact lens. Get medical attention if irritations persist.

#### SKIN CONTACT

Wash skin with soap and water. Quickly remove contaminated cloth or shoes. Obtain medical if irritation occurs.

#### INGESTION

Do not induce vomiting, consult a physician immediately.

#### NOTES TO PHYSICIAN

No specific treatment. Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA :** Water haze, Foam, Chemical powder.

**UNSUITABILITY :**

**EXTIGUISHING MEDIA :** None

**HAZARDS DECOMPOSITION PRODUCT(S) :**

Decomposition products may include carbon dioxide. Normally combustion forms water vapor and may produce carbon monoxide and other hydrocarbons. The products of the burning are dangerous.

**SPECIAL PROTECTIVE EQUIPMENT :** Use personal protective equipment or self-contained breathing apparatus (SCBA) when fighting fires in enclosed areas or confined room.

### 6. ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS

Eliminate all sources of ignition in vicinity of spilled material. Wear appropriate personal protective equipment when cleaning up spills.

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## ENVIRONMENTAL PRECAUTIONS

Avoid dispersal of split materials to natural waters, soil or sewers.

### METHODS FOR CLEANING UP

Sweep up or vacuum split materials and place in a designated, labeled waste container. Contact licensed waste disposal contractor to dispose.

## 7. HANDLING AND STORAGE

### HANDLING

Use good housekeeping for safe handling of the product. No smoking, drinking or eating in handling and store area. Avoid spilling the product, as this might cause falls. Potential toxic/irritating fumes may be evolved from heated material. Provide appropriate ventilation for such processing conditions. Take precautionary measures against explosion risks, as all types of polymers may develop dust during transporting or grinding of granules.

### STORAGE

Protect from heat and direct sunlight in a dry, cool and well-ventilated area. Take precautionary measures to prevent the formation of static electricity. Do not store together with oxidizing and self-igniting products.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE LIMITS

No exposure limits value known.

### EXPOSURE CONTROLS

**Respiratory Protection:** Product processing, heat sealing of film or operations involving the use of wires or blades heated above 300°C may produce dust, vapor or fumes. To minimize risk of overexposure to dust, vapor or fumes it is recommended that a local exhaust system is placed above the equipment, and that the working area is properly ventilated. If ventilation is inadequate, use certified respirator that will protect against dust/mist.

**Skin and Body Protection:** Hot material: Wear heat-resistant protective gloves, clothing and face shield able to withstand the temperature of the molten product.

Cold material: None required; however, use of gloves is good industrial practice.

**Hand Protection:** Hot material: Wear heat-resistant protective gloves able to withstand the temperature of the molten product.

Cold material: None required; however, use of gloves is good industrial practice.

**Eyes Protection:** Safety glasses with side shields. Use dust goggles if high dust concentration is generated.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Pellets
- **Physical state:** Solid
- **Color:** Off-white
- **Odor:** Paraffin-like

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• <b>Odor threshold:</b>	No data available
• <b>pH:</b>	Not applicable
• <b>Melting point:</b>	125 to 138 °C
• <b>Boiling point</b>	Not applicable
• <b>Flash point:</b>	No data available
• <b>Evaporation rate:</b>	Not applicable
• <b>Flammability (solid, gas):</b>	No
• <b>Upper/lower explosion limits:</b>	Not applicable
• <b>Vapor pressure:</b>	Not applicable
• <b>Vapor density</b>	Not applicable
• <b>Relative density:</b>	No data available
• <b>Density at 23°C</b>	0.945-0.970 g/cm <sup>3</sup>
• <b>Solubility in water:</b>	Insoluble.
• <b>Partition coefficient, n-octane/water:</b>	No data available
• <b>Auto-ignition temperature:</b>	350°C approx.
• <b>Decomposed temperature (ASTM D3850):</b>	>300 °C
• <b>Viscosity, kinematic:</b>	Not applicable
• <b>Viscosity, dynamic:</b>	No data available
• <b>Explosive properties:</b>	High dust concentrations have a potential for sparking or explosion
• <b>Oxidizing properties:</b>	No

## 10. STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stability; under normal conditions of storage and use.
<b>CONDITIONS TO AVOID:</b>	Not applicable
<b>INCOMPATIBILITY MATERIALS:</b>	Incompatibility; to avoid strong oxidizing agents such as chlorates, nitrates, peroxides, etc.
<b>HAZARDOUS DECOMPOSITION:</b>	Will not occur; under normal conditions of storage and use.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

<b>LD50 oral, rat</b>	No determined.
<b>PRIMARY IRRITANT EFFECT</b>	
<b>Skin:</b>	No irritant effect.
<b>Eyes:</b>	No irritant effect.
<b>Sensitization:</b>	No sensitizing effect known.

### ADDITIONAL TOXICOLOGICAL INFORMATION

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

## 12. ECOLOGICAL INFORMATION

### TOXICITY

The product is not toxic, small particles can have physical effects on water and soil organisms.

### PERSISTENCE AND DEGRADABILITY

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This product is not biodegradable.

#### RESULTS OF PBT AND vPvB ASSESSMENT

- PBT : Not determined
- vPvB : Not determined

#### OTHER ADVERSE EFFECTS

No know significant effects or critical hazards.

### 13. DISPOSAL CONSIDERATIONS

#### WASTE TREATMENT METHODS

This resin is possible for recycling by using modern shredding and cleaning method. Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, and treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

### 14. TRANSPORT INFORMATION

#### UN-NUMBER:

- ADR, IMDG, IATA Not regulated

#### UN PROPER SHIPPING NAME:

- ADR, IMDG, IATA Not regulated

#### TRANSPORT HAZARD CLASS (ES):

- ADR, IMDG, IATA
- Class Not regulated

#### PACKING GROUP:

- ADR, IMDG, IATA Not regulated

#### ENVIRONMENTAL HAZARDS:

- Marine pollutant: No

#### SPECIAL PRECAUTIONS FOR USER:

Not applicable.

#### TRANSPORT IN BULK:

Not applicable.

- Transport/Additional information: Not dangerous according to the above specifications.
- UN "Model Regulation": -

### 15. REGULATION INFORMATION

**PACKAGING AND LABELLING:** No special requirement.

**INVENTORIES:** Toxics Substances Control Act Inventory (TSCA).  
Australian Inventory (AICS).  
New Zealand Inventory (NZIoC).  
Canada Inventory (DSL).  
China Inventory (IECS).  
EC Inventory (EINECS).  
Japan Inventory (ENCS).  
Korea Inventory (ECL).  
Philippines Inventory (PICCS).  
Taiwan Inventory (NECI).  
Thailand Inventory (TECI).

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## DISCLAIMER:

- This Applications specified herein is for reference only and not suitable for using in the manufacturing of any products in medical and pharmaceutical sectors.
- Determination of suitability of the product for the use and purpose shall be the customer's responsibility. Customer is obligated to inspect and test the product for such suitability. Customer is responsible for appropriate, safe, legal use processing and handling of the product.
- To our best knowledge, information contained herein is true and accurate as of the date of its publication. However, we make no representations or warranties with respect to accuracy, reliability and completeness of the information contained herein for any purpose.
- No warranties, express or implied, which extend beyond the description herein are given by us. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- We assume no liability for any use of the product in combination with other materials. The information contained herein entirely relates to the product when it is not used in combination with any third party's materials.

## 16. OTHER INFORMATION

### HISTORY

**Date of Issue:** Feb 2024

*Indicates information that has changed from previously issued version.*

### NOTICE

This Safety Data Sheet has been based upon data considered to be accurate at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We take no responsibility for inappropriate use, processing and handling by purchasers and uses of the product.