

SAFETY DATA SHEET

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

Product information

Trade name : Polyethylene Terephthalate Polymer (PET)
Product Utilization : Raw material for industrial conversion

Company Undertaking Identification

Company : Thai PET Resin Co., Ltd.
Manufacturer : 18 WHA Eastern Industrial Estate (Map ta Phut),
G-2 Pakornsongkrohraj Rd., Huaipong, Muang Rayong
District, Rayong 21150, Thailand
Telephone : +66-3-868-5900
Telefax : +66-3-868-5999

2. HAZARDS IDENTIFICATION

Emergency Overview

General Appearance : Odorless, white to opaque white pellet.
Product Hazards : Combustible in flame and may cause slippery surface

Potential Health Effects

Inhalation : Vapor which may be formed at elevated temperature or which is emitted during heating process may be irritating to eyes and respiratory tract.
Ingestion : No significant health hazard identified but may cause choke in case of swallow.
Skin Contact : Scratching at the skin may cause irritation in the same way as sand or dust does. Molten polymer may cause severe thermal burn
Eye Contact : Solid or dust may cause irritation or scratch the surface of the eyes. **Molten polymer may cause severe thermal burn** while vapor may cause eye irritation.

GHS Classification

Not classified according to GHS criteria

Although none of hazard statements are applicable, this product should be handled with following precautions.

- Precautionary statements** : **Prevention:**
 Obtain special instructions before use, and DO NOT handle until all safety precautions have been read and understood.
 Wash hands and face thoroughly after handling.
 Avoid release to the environment.
- Response:**
 IF exposed or concerned, or if you feel unwell: Get medical advice/ attention.
- Disposal:**
 Dispose of contents/container in accordance with local/ regional/international regulations.
 Do not reuse the container for any other purpose. Dispose of in accordance with applicable laws and regulations.
- Other hazards which do not result in classification** : Powdered material may form explosive dust-air mixture.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Substance

Component	CAS no.	Weight %
Ethylene glycol-terephthalic acid-isophthalic acid copolymer	24938-04-3	>=99%

4. FIRST AID MEASURES

- If inhaled** : If you feel unwell, remove to fresh air immediately.
 Get medical attention if cough or other symptoms develop.
 If exposed to excessive levels of fumes, remove to fresh air
- In case of skin contact** : Immediately remove contaminated clothing and shoes.
 Flush skin with large amounts of water, clean off with soap and water. Get medical attention if symptoms develop.
 If molten polymer contacts the skin, cool immediately with cold water. Do not attempt to peel polymer from the skin. Get medical attention for thermal burn.
- In case of eye contact** : Immediately flush eyes with plenty of water for several minutes. Part eyelids with fingers to assure complete flushing. Check for and remove contact lenses if easily possible. Get medical attention if irritation persists.
- If swallowed** : Do NOT induce vomiting. Never give anything by mouth to an

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- Protection of first-aiders : unconscious person. Rinse mouth with water. Keep the affected person warm and at rest. Get medical attention immediately.
- Notes to physician : Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, safety shoes, etc.
- Notes to physician : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water jet, Water mist, Foam, Dry powder, Carbon dioxide
- Unsuitable extinguishing media : none
- General Hazard : This material does not ignite easily, but will burn if involved in a fire. Products of combustion may include irritating and poisonous gases. Powered material may form explosive dust-air mixtures.
- Special protective equipment for firefighters : Respiratory and eye protection required for fire-fighting personnel. Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.
- Fires and Explosion Hazard : Transfer of product under pressure or other mechanical Work applied to product may cause flammable dust. Smoke from combustion may cause choke.
- Hazardous Combustion Product : Carbon monoxide, Carbon dioxide and smoke
- Further information : Remove all sources of ignition. Keep unnecessary and unprotected personnel away. Remove containers to safe place if possible. Fight fire from an upwind position. Keep surrounding areas cool by spraying water.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, etc. Keep unnecessary and unprotected personnel away. Keep upwind, evacuate downwind. Wear appropriate personal protective equipment as specified in Section 8. Evacuate immediate area.
- Environmental precautions : Do not flush into sewer, river, or any body of water. Product is non-biodegradable; may cause long-term adverse effects in the aquatic environment.
- Methods and materials for containment and cleaning up : Use only non-sparking tools. Vacuum or sweep up material and place in a disposal container. If in molten state, allow it to cool and solidify before proceeding with disposal methods.

7. HANDLING AND STORAGE

Handling

- Technical measures : Refer to the "Engineering measures" in Section 8. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear appropriate personal protective equipment. Provide hand and eye wash station near work area. Wash thoroughly after handling. Use only in well-ventilated area. Keep away from heat, sparks, and flame. Use explosion-proof electrical equipment. Take precautions against build-up of electrostatic charges. Use in well-ventilated area. Avoid dust formation.
- Advice on safe handling : Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Avoid dust formation. Do not breathe dust.

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- Avoidance of contact** : Keep containers tightly closed in a dry, cool and well-Ventilated place (temperature not over 50 degree Celsius).
Keep away from heat, flame, and all sources of ignition.
Store in a segregated and approved area.
- Hygiene measures** : Wash hands thoroughly after handling.
Do not eat, drink, or smoke when using this product.
- Storage**
- Conditions for safe storage** : Store in a secure and safety place with a level ground to prevent injuries from falling material. The floor must be protected from water and impermeable. The inventory location must be fire-resisting. Make the roof from nonflammable materials, and do not install the ceiling. Install appropriate facilities for lighting/ventilating. Store indoors.
Materials to avoid: Strong oxidizers, etc.
- Suitable container and packaging materials for safe Storage** : Metal containers, plastic containers, polyethylene bag, polyethylene-lined paper bag.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Values

USA. ACGIH Threshold Limit Values (TLV)

- Particulates : TWA 3 mg/m³ [2012] respirable
(not otherwise specified) 10 mg/m³ [2012] inhalable

- Engineering measures : Provide safety shower and eye wash station near work area.
Use closed system or local exhaust ventilation.

Personal protective equipment

- Respiratory protection : Always use an approved dust respirator during operation under well-ventilated conditions. Application of respiratory protective equipment should be considered for appropriate usage conditions as follows:
- The level of concentration in the atmosphere exceeds the legal or recommended exposure limits.
 - The respiratory system is irritated or uncomfortable feeling is present.

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- A user considers that the respiratory protective equipment is required based on the result of risk assessment.
In addition, a user should wear a standard protective mask with appropriate filters to prevent dust or vapor from heating process according to the following conditions:
 - Use a dust filter mask to prevent dust in the atmosphere.
 - Use a mask with an organic vapor filter to prevent acid vapor or dust in the atmosphere.
- Hand protection : For most conditions, no hand protection should be needed. However, for good industrial hygiene, skin contact with any substances should be avoided by wearing an appropriate safety glove to prevent heat or physical injuries.
- Eye protection : If there is potential contact with splattered material, power, pellet, particle matter or dust which may cause eye irritation, wear a chemical safety glasses or face shield.
- Skin and body protection : Wear impervious protective gloves to prevent skin contact. If there is potential contact with hot or molten material, wear heat resistant clothing and footwear.
- Other Protective Devices : Safety shower and eye washer station should be installed near working areas. For good occupational hygiene, users should wash their hands before eating, smoking, going to toilet, or a rest break. The contaminated clothing should be properly cleaned before next use. The product must not be eaten and must be kept away from food.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical state : Solid
- Form : Pellets
- Color : White to opaque white
- Odor : Odorless

Safety data

- pH : Not applicable
- Melting point/range : 245 - 255 °C (Varies by product)
- Boiling point/boiling range : Not determined
- Flash point : > 300 °C
- Auto-ignition temperature : > 500 °C

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Lower explosion limit	: Not determined
Upper explosion limit	: Not determined
Vapour pressure	: Not determined
Specific gravity	: 1.3 - 1.5 (Varies by product)
Water solubility	: insoluble
Partition coefficient n-octanol/water	: Not applicable
Decomposition temperature	: > 350 °C

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal storage and handling conditions.
Conditions to avoid	: Heat, moisture, sunlight
Materials to avoid	: Strong oxidizers, etc.
Hazardous decomposition products	: Not available
Hazardous reactions	: Dust or vapors may be ignite or explode by static electricity Or other ignition sources. Reacts with strong oxidizers.
Hazardous Polymerization	: Not available.
Thermal Decomposition	: Products which are derived from thermal decomposition depend on ambient temperature and other materials existing during conversion process may cause release of various substances which can be ranged from a hydrocarbon to a toxic or irritating gas e.g. carbon monoxide, carbon dioxide and other volatile organic compound.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: Not classified
Acute dermal toxicity	: Not classified
Acute inhalation toxicity	: Classification not possible
Skin corrosion/irritation	: Classification not possible
Serious eye damage/eye irritation	: Classification not possible
Sensitization	: Respiratory sensitization: Classification not possible Skin sensitization: Classification not possible
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible
STOT - single exposure	: Classification not possible

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STOT - repeated exposure : Classification not possible
Aspiration toxicity : Classification not possible

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity
Acute aquatic toxicity : Classification not possible
Chronic toxicity
Chronic aquatic toxicity : Classification not possible

Bioaccumulative potential

Partition coefficient : Not applicable
n-octanol/water

Other adverse effects

Hazardous to the ozone layer : Not classifiable

13. DISPOSAL CONSIDERATIONS

Product Disposal Methods :

- Whatever cannot be saved for recovery may be submitted to a licensed service provider of waste disposal or burnt in an approved incinerator, disposed in approved waste facility, or land filled.
- Do not dispose the product by releasing the product into the water drainage system, ground or other water sources. The method of disposal must be compliance with local or federal laws and regulations which may vary depending on different countries. Users need to ensure that their disposal methods are legally allowed to proceed.
- As a distributor, the company does not involve in any controls of management systems or manufacturing process of the product possessors or users. The disposal methods mentioned above are only applied to the product with appropriate usage conditions identified in the material safety data sheet and applied to unused or uncontaminated product.

Packaging Disposal Methods : Do not reuse the packaging. The method of disposal must be compliance with local or federal laws and regulations.

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Recommendation: Please contact local consultants for further advice.

14. TRANSPORT INFORMATION

International transport regulations

IATA

Not dangerous goods

IMDG

Not dangerous goods

15. REGULATION INFORMATION

Notification status

Japan	ENCS:	On the inventory, or in compliance with the inventory.
United States	TSCA:	On the inventory, or in compliance with the inventory.
European Union	EINECS, ELINCS, NLP:	All components of this product are on EINECS, ELINCS, or NLP or are imported under polymer exemption.
Canada	DSL, NDSL:	All components of this product are on DSL.
Australia	AICS:	On the inventory, or in compliance with the inventory.
Korea	KECI:	On the inventory, or in compliance with the inventory.
China	IECSC:	On the inventory, or in compliance with the inventory.
New Zealand	NZIoC:	On the inventory, or in compliance with the inventory.
Philippine	PICCS:	On the inventory, or in compliance with the inventory.

16. OTHER INFORMATION

Sources of key data used to compile the Safety Data Sheet : In-house data
 Information acquired by literature documentation

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.