



台聚關係企業

USI CORPORATION SAFETY DATA SHEET

1. Identification of the chemicals and of the business entity

Chemical Name : HIGH DENSITY POLYETHYLENE

Trade Name : UNITHENE®

Synonyms: High density polyethylene resins, HDPE

Recommended use and restrictions on use:

Each HDPE has its individual application such as flat yarn, coarse monofilament, injection molding, sheet extrusion.

Please refer to the TDS (Technical Data Sheet) for the detailed information.

Supplier Name : USI Corporation

Addresses / Phone: No.330, Fengren Rd., Renwu Dist., Kaohsiung City 81449, Taiwan (R.O.C.) / +886-2-8751-6888

Emergency contact phone numbers / fax numbers: +886-2-87516888 / +886-3-318-7229

2. Hazard(s) identification

Not a hazardous substance or mixture

Classification according to Regulation GHS : Not classified as hazardous

Classification according to Regulation (EC) No 1272/2008[CLP] : Not classified as hazardous

Label content: None

Other hazards: None

Results of PBT and vPvB assessment: This information is not required.

3. Composition/information on ingredients

Pure substance:

Chinese and English chemical name: 高密度聚乙烯, High density polyethylene

Synonyms: High density polyethylene resins, HDPE

CAS No.: 9002-88-4

REACH registration number: 01-2119462827-27-xxxx

Hazardous ingredients (% of the content): None

4. First-aid measures

The first aid measures for different exposure routes:

● Inhalation:

Supply fresh air . Get medical attention.

● Skin contact:

If contact with molten material, immediately immerse contacted area with cold water.

Don't attempt to peel off the molten material from skin. Get medical attention.

● Eye contact:

Flush eyes with plenty of water.

Seek medical advice if pain persists.

● Ingestion: Get medical attention.

Most important symptoms and hazardous effects: None

Protection for first-aid providers: No need

Notes to physicians: Expatriate symptom or phenomenon of the patient.

5. Firefighting measures

Suitable fire extinguishing media: Water, water fog, foam, carbon dioxide, dry chemical.

Specific hazards regarding firefighting measures:

Carbon monoxide (CO), Carbon dioxide (CO₂) may be produced when the product is burned.

Specific methods regarding firefighting measure:

1. Stand on the up-wind side, then apply fire extinguisher to cover the fire area thoroughly.

2. If possible, remove the remaining pellets or goods to a safe location.

Special protective equipment and precautions for firefighters:

Appropriate protective fire fighting clothing and respirator are necessary for firefighters.



台聚關係企業

USI CORPORATION SAFETY DATA SHEET

6. Accidental release measures

Personal precautions:

- Spilled material may cause a slipping hazard.
- Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Stop leak and shovel into container for disposal.

7. Handling and storage

Handling: Before using, read the TDS (Technical Data Sheet).

Use in well-ventilated area.

Storage: Keep in a dry, cool place. Do not store in heat or direct sunlight.

Keep in properly labelled containers and tightly closed when not being used.

Specific end uses: None

8. Exposure controls/personal protection

Engineering control: Ventilated area to prevent accumulation of fumes.

Control parameters:

- 8-hour time weighted average exposure limits/Short-term exposure limits/Maximum exposure limits

PEL - Permissible exposure limit		Regulation
TLV-TWA	No applicable data (8hr)	USA -OSHA
TLV-STEL	No applicable data (15min)	USA -OSHA
TLV-C	No applicable data	USA -OSHA

Environmental exposure controls: No special environmental precautions required.

- Biological standard: N/A

Personal protective equipment:

- Respiratory protection: Use dust-proof mask.
- Hand protection: Use rubber gloves. Use thermal resistant gloves, when needed.
- Eye protection: Use safety goggles, when fumes is present.
- Skin and body protection: Long sleeve lab coats and gloves to protect skin exposure.

Hygiene measures: None

9. Physical and chemical properties

Appearance (physical state, color, etc.): White solid pellets	Odor: negligible
Odor threshold: No data available	Melting point: 125 ~ 140 °C
pH value: Not applicable	Boiling point/boiling point range: No data available
Flammability: No data available	Flash point: >340 °C
Decomposition temperature: No data available	Test method : <input type="checkbox"/> Open cup <input checked="" type="checkbox"/> Close cup
Auto-ignition temperature: ca. 400 °C	Explosion limits : Not applicable
Vapor pressure: Not applicable	Vapor density: Not applicable
Density: 0.940 ~ 0.965 g/cm ³	Solubility: Insoluble
Partition coefficient(n-octanol/water,logKow): No data available	Evaporation rate : Not applicable



台聚關係企業

USI CORPORATION SAFETY DATA SHEET

10. Stability and reactivity

Reactivity: Stable under normal conditions of handling, use and transportation.

Stability: Stable under normal conditions.

Possible hazardous reactions under specific conditions:

- Stable under recommended storage conditions.
- No hazards to be specially mentioned.

Conditions to avoid: : Avoid heating above the recommended processing temperature.

Materials to avoid: Might react with strong oxidant.

Hazardous decomposition products: Material does not decompose at ambient temperatures.

11. Toxicological information

Routes of exposure : Skin, eyes, inhalation and ingestion

Immediate effects:

- **Eye:**
Solid or dust may cause irritation or corneal injury due to mechanical action.
- **Inhalation :**
Dusts and vapors or fumes evolved during thermal processing may cause irritation to the respiratory system.
- **Skin contact:**
No skin irritation.
- **Ingestion:**
Essentially non-toxic based on components.
Unable to digest.

Other :

Carcinogenicity : No data available

Acute toxicity: No data available

Chronic toxicity: No data available

12. Ecological information

Ecotoxicity: Difficult to biodegrade. It can be recycled with appropriate technologies.

Persistence and degradability: Hard to naturally degrade.

Bioaccumulative potential: None

Mobility in soil: None

Results of PBT and vPvB assessment: This information is not required.

Other adverse effects: Improper burning may generate hazardous gas.

13. Disposal considerations

Methods of waste disposal:

Dispose of waste material at an approved waste incineration facility in accordance with applicable regulations.

14. Transport information

United Nations number (UN No): Not regulated

UN Proper shipping name: Not regulated

Transport hazard class(es): Not regulated as a hazardous for transportation.

Packing group: Not regulated

Marine pollutant (Yes/No): Not regulated

Specific transport measures and precautionary conditions: Not regulated

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : Not applicable.

The general rule for classification and hazard communication of chemicals (RID-ADR, IMO, IATA, IMDG):

Not regulated for transport.



台聚關係企業

USI CORPORATION SAFETY DATA SHEET

15. Regulatory information

HIGH DENSITY POLYETHYLENE (CAS No.9002-88-4) is listed in the following chemical inventories:

- Australian-AICS
- Canada-DSL
- Chinese Inventory of Existing Chemical Substances
- European EINECS are exempt from the listings, all monomers are listed.
- Japan-ENCS
- New Zealand-NZIoC
- Philippines-PICCS
- USA-TSCA
- Taiwan - Taiwan's chemical substance inventory (TCSI)

16. Other information

Abbreviation and Acronym:

CAS - Chemical Abstracts Service (division of the American Chemical Society)

CLP - Classification, Labelling and Packaging

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IBC Code - International Bulk Chemical Code

MARPOL - International Convention for the Prevention of Pollution from Ships

PBT - persistent, bioaccumulative and toxic

PEL - Permissible exposure limit

TLV-C - Threshold Limit Values-Ceiling exposure limit

TLV-STEL - Threshold Limit Values-Short Time Exposure Limit

TLV-TWA - Threshold Limit Values-Time Weighted Average

USA-OSHA - Occupational Safety and Health Administration

vPvB - very Persistent and very Bioaccumulative

Reference : None

Producer : USI Corporation

Addresses : No. 9, Dinghu 5th St., Guishan Dist., Taoyuan City 333, Taiwan

Phone Number : +886-2-8751-6888

Person who prepared the SDS : R & D Division

Date that the SDS was prepared : 2025/01/07

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 guide for safe handling, use, storage, processing, transportation, disposal and release and is not to be considered a warranty or quality specification.