

Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product Identifier
 - Substance Name: Taisox Linear Low Density Polyethylene

3100RT

- · Other Names: Taisox LLDPE Pipe Grade Resin
- Recommended Uses: As a raw material for underfloor heating and multilayer pipe for heating and plumbing.
- 1.2 Supplier Information
 - Manufacturer Name: Formosa Plastics Corporation, Polyolefin Division
 Mailiao Plant: No.1, Formosa Industrial Complex, Mailiao, Yunlin County, Taiwan, R.O.C.
 - · Telephone Number: +886-5-681-1180(Mailiao Plant)
- 1.3 Emergency Contact: Telephone Number: (TEL) +886-5-681-1180, (Fax) +886-5-681-1122

SECTION 2: HAZARD INDICATION

- 2.1 Chemical Hazard Classification: None
- 2.2 Label Element: None
- 2.3 Other Hazards:
 - Inhalation: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath.
 - · Skin Contact: Heated material can cause thermal burns.
 - Eye Contact: Heated material can cause thermal burns. When heated to decomposition, it emits acrid smoke and irritating fumes.
 - · Ingestion: No significant health hazards identified.

SECTION 3: COMPOSITION

Pure Substance:

- 3.1 Technical Name: Linear Low Density Polyethylene
- 3.2 Similar Name: Ethylene Polymer, LLDPE
- 3.3 Chemical Abstracts Number (CAS No.): 25213-02-9
- 3.4 Ingredient Percent(%): LLDPE≥99.4%, Others≤0.6%
- 3.5 Dangerous Components: None

Mixtures:

3.6 Chemical Properties:	
Names of Hazardous Ingredients	Concentration or Concentration Ranges(Ingredient Percentage)
None	None



SECTION 4: FIRST AID MEASURES

- 4.1 First Aid Measures for Different Routes of Exposure:
 - · Inhalation: Move to fresh air, and seek medical attention if difficulty breathing persists.
 - Skin Contact: After being touched by molten plastic, it must be cooled immediately with plenty of water, and treated according to the clinical method of burns.
 - Eye Contact: Rinse with plenty of water.
 - Ingestion: A small amount of accidental ingestion is basically harmless; a large amount of accidental ingestion is recommended to seek medical attention and take it out.
- 4.2 Most Important Symptoms and Effects, Both Acute and Delayed: None
- 4.3 Self-protection of the First Aiders: Keep ventilation and prevent burns during first aid.
- 4.4 Notes for the Physicians: None

SECTION 5: FIRE FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media: Water, carbon dioxide, foam or dry extinguishers
- 5.2 Special Hazards That May Be Encountered During Fire Fighting: Irritating gas or dense smoke
- 5.3 Special Fire Extinguishing Procedures: According to the standard procedures for general fires, that is, the Class A fires.
- 5.4 Special Protective Equipment for Firefighters: Wear appropriate protective equipment and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions:

- · Wear appropriate personal protective equipment during all clean-up activities.
- · Avoid inhalation of fumes and direct contact the spills.
- · Avoid walking on floors with scattered plastic particles to avoid slipping.

6.2 Environmental Precautions:

- Ensure ventilation, and keep spilled material away from heat, sparks and open flames.
- Do not flush plastic pellets into drains or sewers to avoid affecting the environment.
- 6.3 Methods for Clean-up: Clean-up with general cleaning tools, and put waste in an appropriate container for disposal.



SECTION 7: HANDLING AND STORAGE

7.1 Handling:

- During the processing of the material, avoid inhalation of fumes, or powders, by providing good ventilation of the workplace.
- Depends on the needs, the fumes and dusts generated by the processing can be trapped and remove by an effective way.
- Traces of aldehydes or ketones which may arise during the processing, but the amount will remain under the TLV-TWA value.
- · Avoid dispersion of dust in air to reduce potential for ignition or explosions.

7.2 Storage:

- · Store in well-ventilated, cool and dry places and avoid direct sunlight.
- · Pay attention to the stacking situation to avoid material dumping.
- · Keep away from heat, ignition sources, combustibles and incompatible materials.
- The equipment must be grounded to prevent the accumulation of static electricity.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Engineering Control: Avoid contact with hot molten material.

8.2 Control Parameters:

- Eight-hour Daily Average Allowable Concentration/Short-time Average Allowable Concentration/Maximum Allowable Concentration: None
- · Biological Standards: None

8.3 Personal Protective Equipment:

- Respiratory Protection: Not required in normal use of product. If dusty conditions exist, it's recommended to use NIOSH approved dust mask.
- · Hand Protection: Heat-resistant gloves
- · Eye Protection: Safety glasses
- Skin and Body Protection: For high temperature processing, wear appropriate clothing if necessary to avoid burns.

8.4 Hygiene Procedures:

- Minimize contact with skin and wash hands thoroughly after handling, especially before eating, drinking, smoking, chewing, or using restroom facility.
- · Do not eat, drink, or smoke in work area.



SECTION 9: Physical and Chemical Properties/ Characteristics

Appearance: Slightly transparent white solid	Odor: None
Odor Threshold: N/A	Melting Point/ Freezing Point: 123-131°C
pH Value: N/A	Boiling Point/ Boiling Range: N/A
Flammability: N/A	Flash Point: > 300°C (> 570°F)
Decomposition Temperature: >400°C	Test Method: □ Open Cup ■Close Cup
Auto-ignition Temperature: ca.340°C	Exposure Limits: N/A
Vapor Pressure: N/A (Below) mmHg@20°C	Vapor Density: N/A (Air=1.0)
Specific Gravity: 0.932-0.942 g/cm ³	Solubility in Water: Insoluble
n-Octanol/Water Partition Coefficient: N/A	Volatility: N/A

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Stability: Stable and inner at ordinary temperature.
- 10.2 Possible Hazardous Reactions Under Special Conditions: It will start to decompose and produce smoke at high temperature.
- 10.3 Condition to Avoid: Avoid exposure to environments over 200°C to avoid material cracking.
- 10.4 Substances to Avoid: None
- 10.5 Hazardous Decomposition Products: Burning can produce carbon monoxide and/or carbon dioxide and other organic vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Routes of Exposure: None
- 11.2 Symptoms: None
- 11.3 Acute Toxicity: None
- 11.4 Chronic Toxicity or Long-term Toxicity: None

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Eco Toxicity: Not biodegradable, but can be recycled by using suitable technologies.
- 12.2 Persistence and Degradability: Very slowly degradation by solar UV irradiation.
- 12.3 Bio Accumulative Potential: None
- 12.4 Mobility in Soil: None
- 12.5 Other Adverse Effects: None



SECTION 13: DISPOSAL INFORMATION

- 13.1 Methods of Waste Disposal: It must be done in accordance with existing regulations.
 - In general situation, it can be disposed by landfill or incineration.
 - It can also be recycled by melting and pelletizing.

SECTION 14: Transport Information

- 14.1 United Nations Number(UN No.): None
- 14.2 UN Shipping Name: None
- 14.3 Transport Hazard Class(es): None
- 14.4 Packing Group: Bag or bulk bag
- 14.5 Marine Pollutant(Yes/No): No
- 14.6 Specific Transport Measures and Precautionary Conditions: Non-dangerous goods

SECTION 15: Regulation Information

15.1 Applicable regulations:

- · USA-TSCA
- · Canada-DSL
- Europe-EINECS are exempt from the listings, all monomers are listed.
- · Australia-AICS
- · Korea-ECL
- · Philippines-PICCS
- · China-Inventory of Existing Chemical Substances



SECTION 16: Other Information

16.1 Inspection Reports:

- · Relevant Regulations on Food Contact Materials:
 - ☑ EU No.10/2011
 - ☑ GB4806.6
 - **☑** TFDA
 - ☑ US FDA 21 CFR 177.1520(c)
- · Other Related Regulations:
 - ☑ EN 71-3
 - ☑ REACH SVHCs [the latest list of restricted substances]
 - ☑ RoHS 2011/65/EU Annex II and its amendment Directive (EU)2015/863[10 substances]

16.2 Declarations:

- · All the Products Are Free of:
 - ☑ Halogens
 - ☑ 15 Polycyclic Aromatic Hydrocarbons [PAHs]
 - ☑ TSCA [5 PBTs]
 - ☑ REACH Annex XIV or Annex XVII
 - ☑ Per and Polyfluoroalkyl Substances [PFAS]
 - ☑ Ozone Depleting Substances [ODS]
 - ☑ Conflict Minerals
 - ☑ Bisphenol A
- · All the Products Qualify:
 - ☑ California Proposition 65

16.3 Visit the FPC website-download and search Taisox Product Declaration List for more details.

Organization That Prepared the SDS	Name: Technical Dept., Polyolefin Division, Formosa Plastics Corporation	
	Address:	
	No.1, Formosa Industrial Complex, Mailiao, Yunlin County, Taiwan, R.O.C.	
SDS Prepared By	Liao Tzu-Yu (R&D Engineer)	
Contact Person	Lin Kuei-Pin (R&D Senior Engineer)/E-mail: viplin@fpc.com.tw	
Date That the SDS	April 19, 2023	
Was Prepared		