

Material Safety Data Sheet Polyethylene Film

Section 1 - Product Identification

Synonym : Polyethylene Film, PE Film
Chemical Formula : $(C_2H_4)_n$
Company Identification : Tradeasia International Pte. Limited
Address : 133 Cecil Street # 12-03 Keck Seng Tower, Singapore
Tel: +65-6227 6365
Fax: +65-6225 6286
Email: contact@chemtradeasia.com

Section 2 – Hazards Identification

2.1. Classification

Not regulated per OSHA Hazard Communication Standard, paragraph (d) of §1910.1200.

2.2. Label elements

Symbols/Pictograms

Not applicable

Signal Word

Not applicable

Hazard Statements

Not applicable

Precautionary Statements Storage

Not applicable

2.3. Other hazards

Not applicable

Section 3 – Composition/Information on Ingredients

3.1 Composition comments

Chemical Name	EC No/CAS No	Purity, %
Polyethylene	9002-88-4	75-95
Colorant	Various	0-10
Others	Various	0-5

Section 4 – First-Aid Measures

4.1. Description of first aid measures

General advice

Show this Safety Data Sheet to the medical professional in attendance. Adverse health effects are not anticipated with use of this product as intended. If symptoms occur, follow first aid measures as appropriate.

Eyes

Flush the eye with water for 15 minutes. Get medical attention if irritation persists.

Skin

Wash contaminated skin with mild soap and water. Individuals experiencing skin sensitivity should obtain medical advice.

Ingestion

Not considered a likely route of entry. Swallowing small quantities will not cause harm.

Inhalation

If respiratory irritation occurs, remove affected personnel to fresh air. Obtain medical attention if irritation persists or is severe.

Notes to physician

Not available.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation of fumes from heated plastic may cause irritation of respiratory tract, chest discomfort, and/or dizziness. In rare cases, contact with sensitive individuals' skin may result in irritation or reddening of skin.

4.3. Indication of any immediate medical attention and special treatment needed

Not available.

Section 5 – Fire Fighting Measures

5.1. General Advice

Polyethylene is combustible. Processes such as grinding could produce fine dust and could be a potential explosion hazard. Can burn in fire, releasing toxic vapors, gases, and fumes.

5.2. Suitable Extinguishing media

Water, Foam, Dry Chemical, Carbon Dioxide. Use extinguishing media appropriate for surrounding material.

5.3. Unsuitable Extinguishing media

Not available.

5.4. Specific hazards arising from the chemical

Not available.

5.5. Special protective equipment for firefighters

Wear full bunker gear including a positive pressure self-contained breathing apparatus.

5.6. Special firefighting procedures

Not applicable.

5.7. Special remarks on fire hazards

Polyethylene is combustible. Processes such as grinding could produce fine dust that could be a potential explosion hazard.

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective clothing is not normally required under normal conditions of intended use, however, the use of gloves and safety glasses is consistent with good manufacturing and hygienic practice.

6.2. Methods and materials for containing and cleaning up

No special measures necessary beyond general housekeeping.

Section 7 – Handling and Storage

7.1. Precautions for safe Handling

Suffocation hazard exists if material covers the face. Keep away from children.

7.2. Conditions for safe storage, including any incompatibilities

Avoid contact with strong oxidizers and excessive heat.

Section 8 – Exposure Controls/Personal Protection

8.1. Appropriate engineering controls

Local ventilation should be provided if product is further processed producing dust or fumes. General ventilation may also be used, but local ventilation is usually preferable.

8.2. Individual protection measures, such as personal protective equipment (PPE)

General Information

The following general hygiene considerations are recognized as common, good industrial hygiene practices. Wash hands after use and before eating, avoid breathing dust, and wear safety glasses.

Eye/face protection

Not normally required, but may be recommended if product is further processed.

Skin protection

Not normally required. Wearing gloves is consistent with good industrial safety / hygiene practice.

Respiratory protection

Not normally required. If product is being further processed producing dust or fumes, local ventilation should be provided. Respiratory protection is normally only to be used as a temporary measure until proper ventilation can be installed.

Thermal hazards

Not applicable.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Solid, plastic, reflective insulation

Odor: Odorless.

pH: Not applicable.

Vapor Pressure: Not applicable.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: Not applicable.

Freezing/Melting Point: 219 - 239 °F (for polyethylene resin- main component)

Decomposition Temperature: Not available.

Auto-ignition temperature: Not available.

Relative density: 0.91-0.97 (for polyethylene resin- main component)

Solubility (water): Insoluble

Section 10 – Stability and Reactivity

10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. Polyethylene is stable to water, non oxidizing acids and alkalis, alcohols, ethers, ketones and esters at ordinary temperatures. Decomposes under UV light, sunlight and at temperatures of 122° F or greater. Is attacked by oxidizing agents such as nitric and perchloric acids, free halogens, benzene, petroleum ether, gasoline and lubricating oils, aromatic and chlorinated hydrocarbons.

10.2. Chemical stability

Stable under normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid:

Avoid contact with strong oxidizers and excessive heat.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Temperatures above 480°F could cause product degradation potentially producing toxic vapors including carbon monoxide, olefinic, and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes, and/or alcohols.

Section 11 – Toxicological Information

11.1. General information on likely routes of exposure

Ingestion

Not expected to occur under normal conditions of intended use. No adverse effects known to be associated with ingestion of small amounts of this inert polymer material. Ingestion of large quantities may result in gastrointestinal discomfort or distress.

Inhalation

Inhalation at ambient temperatures is unlikely except for dust from grinding. Fumes from overheating or combustion of polymer may cause respiratory irritation. Inhalation of dust may cause respiratory irritation.

Skin contact

In rare cases, skin contact in sensitive individuals may cause irritation or reddening of skin.

Eye contact

Eye contact may cause mild irritation.

Symptoms

Eye contact may cause slight irritation. Inhalation of fumes from heated plastic may cause irritation of respiratory tract, chest discomfort, and/or dizziness. In rare cases, skin contact in sensitive individuals may cause irritation or reddening of skin.

11.2. Health effects associated with ingredients

Acute toxicity

Not established for product as a whole. Polyethylene resin (main ingredient) not considered to be toxic to humans or animals.

Skin corrosion/irritation

Skin contact is not normally a problem. In rare cases, skin contact in sensitive individuals may cause irritation or reddening of skin.

Serious eye damage/eye irritation

No data were identified for this product. Polyethylene resin (main ingredient) is mildly irritating in rabbits.

Respiratory or skin sensitization

No data were identified for this product or the components.

Germ cell mutagenicity

No data were identified for this product or the components.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Polymer matrix may integrate crystalline silica, a substance "known to the State of California to cause cancer," though crystalline silica concentrations, if any, are small (< 1% by weight) and not readily released from their chemical bonds to polymer matrix. Metallized film may contain several substances "known to the State of California to cause cancer" in trace quantities.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Not relevant based on the physical form of the product.

Developmental effects

No data available

Conclusion/Summary

This product is not expected to produce toxic effects.

Section 12 – Ecological Information

12.1. Ecotoxicity

No data were identified for this product as a whole. For polyethylene resin (main ingredient) ecotoxicity is expected to be low.

12.2. Bioaccumulative potential

No data were identified for this product as a whole. For polyethylene resin (main ingredient), bioaccumulation is not expected to occur.

12.3. Mobility in soil

Not available

12.4. Persistence and Degradability

Not available

12.4. Results of PBT and vPvB assessment

Not available

12.5. Other adverse effects

Not applicable

Section 13 – Disposal Considerations

13.1. Disposal methods

Residual waste

Dispose as normal, non-hazardous, solid waste, in accordance with applicable Federal, State and Local regulations.

Contaminated packaging

Dispose as normal, non-hazardous, solid waste, in accordance with applicable Federal, State and Local regulations.

Disposal methods/information

If the material as supplied becomes a waste, it does not meet the definition of a hazardous waste as defined under RCRA (40 CFR 261).

Section 14 – Transport Information

UN number	Not regulated
UN proper shipping name	Not regulated
Transport hazard class(es)	Not regulated
Packing Group	Not regulated

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations

USA Federal Regulations:

29 CFR 1910.1200 Hazard Communication

Standard (HCS): Not regulated

California Proposition 65: No Labeling Required.

TSCA Inventory: Listed [9002-88-4, 112-84-5, 68855-54-9]

TSCA 12b: Nonylphenol (a trivial compound of polyethylene)

SARA Title III – Section 302,

Extremely Hazardous Substances (EHS): None

CERCLA 102A/103 - Hazardous substances: None

Section 16 : Additional Information

16.1. List of abbreviation and acronyms used in this MSDS

SDS : Safety Data Sheets

Index N° : atomic number of the element most characteristic of the properties of the substance

CAS No : Chemical Abstracts Service number

EC No : EINECS Number : European Inventory of Existing Commercial Substances

Repr. Cat. 2 : Substance presumed human reproductive toxicant

Acute Oral Cat. 5 : Substance which is of relatively low acute oral toxicity.

GHS : Globally Harmonised System of Classification and Labelling

LD₅₀ : Median Lethal Dose

LC₅₀ : Lethal Concentration, 50%

N.A. : Not Applicable/Available

OSHA : Occupational Safety & Health Administration

Cal OSHA : The State of California Division of Occupational Safety and Health (DOSH)

PEL : Permissible Exposure Limits

ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Value

EC₅₀ : Half maximal effective concentration

UN : United Nations

U.S. EPA TSCA Inventory: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

Canadian DSL: Canadian Domestic Substances List

16.2. Disclaimer of Liability

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its accuracy, reliability or completeness. The conditions or methods of handling, storage use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

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