


# Safety Data Sheet(SDS)

Revision date : 01-06-2026

## 1. Identification

- 1) Product identifier : LLDPE UL914A
- 2) Relevant identified uses of the substance or mixture and uses advised against
  - Relevant identified uses
    - 1.Raw materials and intermediates
  - Restrictions on use
    - Use for recommended use only
    - Do not use it for weapons manufacturing and related purposes.
- 3) Supplier information
  - Seller
    - Company name : Lotte Daesan Petrochem Corporation
    - Address : 82 Dokgot 1-ro, Daesan-eup, Seosan-si, Chungcheongnam-do
    - Telephone number : +82-41-689-5114
    - Emergency phone number : (Control Room) +82-41-689-5119
    - Fax number : +82-41-689-5985

## 2. Hazards identification

- 1) Hazard classification
  - Specific target organ toxicity single exposure Category 3(Respiratory tract irritation)
- 2) Allocation label elements
  - Hazard pictograms
    - 
  - Signal word
    - WARNING
  - Hazard statements
    - H335 May cause respiratory irritation

## Precautionary statements

### - Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a wellventilated area.

### - Response

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Discomfort call a POISON CENTER / toxins center / physician if you feel unwell.

### - Storage

P403+P233 Store in a wellventilated place. Keep container tightly closed.

P405 Store locked up.

### - Disposal

P501 Discard the contents/containers in accordance with the laws and laws related to waste.

## 3) Other hazards:

According to experience and information provided, this product does not affect harmful effects when using and handling it as a regulation.

## 3. Composition/Information on ingredients

Chemical name	Common name	CAS No.	Content(wt%)
Polyethylene	Polyethylene, Ethene polymer, Ethene, homopolymer	9002-88-4	>=95 ~ <=100

## 4. First-aid measures

### 1) Following eye contact

- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Seek immediate medical assistance.

### 2) Following skin contact

- For minor skin contact, avoid spreading material on unaffected skin.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Remove and isolate contaminated clothing and shoes.
- Seek immediate medical assistance.

### 3) Following inhalation

- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.
- If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
- Keep victim warm and quiet.
- Move to fresh air.

- 4) Following ingestion
  - Seek immediate medical assistance.
- 5) Delayed and immediate effects and also chronic effects from short and long term exposure
  - May cause respiratory irritation
- 6) Advice to physician
  - Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

## 5. Fire-Fighting measures

- 1) Suitable (and unsuitable) extinguishing media
  - Suitable extinguishing media
    - Dry chemical.
    - Use dry sand or earth to smother fire.
    - Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
    - CO<sub>2</sub>.
    - Water spray.
  - Unsuitable extinguishing media
    - Direct water.
- 2) Special hazards arising from the substance or mixture
  - Pyrolytic product
    - Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
  - Risk of fire and explosion
    - Containers may explode when heated.
    - Some may burn but none ignite readily.
  - Other
    - May cause toxic effects if inhaled.
- 3) Special protective equipment for firefighters
  - Dike fire-control water for later disposal; do not scatter the material.
  - Evacuate area and fight fire from a safe distance.
  - Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
  - Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
  - Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
  - Fire involving Tanks: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
  - Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
  - Move containers from fire area if you can do it without risk.
  - Substance may be transported in a molten form.

## 6. Accident release measures

- 1) Personal precautions, protective equipment and emergency procedures
  - Clean up spills immediately, observing precautions in Protective Equipment section.
  - Cover with plastic sheet to prevent spreading.
  - Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
  - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
  - Please note that materials and conditions to be avoided.
  - Stop leak if you can do it without risk.
- 2) Environmental precautions
  - Prevent entry into waterways, sewers, basements or confined areas.
- 3) Methods and materials for containment and cleaning up
  - Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
  - Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
  - Absorb the liquid and scrub the area with detergent and water.

## 7. Handling and storage

- 1) Precautions for safe handling
  - Avoid breathing vapors from heated material.
  - Do not enter storage area unless adequately ventilated.
  - Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
  - Handling refer to engineering control/personal protection section.
  - Loosen closure cautiously before opening.
  - Please note that materials and conditions to be avoided.
  - Use care in handling/storage.
  - Use only in a well-ventilated area.
- 2) Conditions for safe storage (including any incompatibilities)
  - Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

## 8. Exposure controls & personal protection

- 1) Chemical exposure limits, Biological exposure standard
  - Contains no substances with occupational exposure limit values.
- 2) Appropriate engineering controls
  - If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- 3) Personal protective equipment
  - Respiratory protection
    - If you have a direct contact or exposed to the material, wear the appropriate form of respiratory protection certified.

- Eye protection
  - If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
- Hand protection
  - Wear chemical safety gloves.
- Skin protection
  - Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

## 9. Physical and chemical information

Property name	Values	Source
Appearance		
Physical state	Soild	
Color	White	
Odor	Odorless	
Odor threshold	No data available	
pH	Not applicable	
Melting point/freezing point	85 - 140 °C	
Initial boiling point and boiling range(°C)	Not applicable	
Flash point(°C)	> 221 °C	
Evaporation rate	Not applicable	
Flammability(solid, gas)	No data available	
Upper/lower flammability or explosive limits	Not applicable	
Vapour pressure	Not applicable	
Solubility(ies)	Insolubility	
Vapour density	Not applicable	
Relative density	No data available	
n-octanol/water partition coefficient	No data available	
Auto ignition temperature	> 300 °C	
Decomposition temperature	No data available	
Viscosity(mm <sup>2</sup> /s, 40°C)	No data available	
Molecular weight(mass)	> 1,000 g/mol	
Density	0.91 - 0.97 g/cm <sup>3</sup>	
Specific gravity	0.91 - 0.97	

## 10. Stability and hazardous reactivity

- 1) Chemical stability and Possibility of hazardous reactions
  - Containers may explode when heated.
  - Fire may produce irritating, corrosive and/or toxic gases.
  - Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
  - Some may burn but none ignite readily.
- 2) Conditions to avoid
  - Ignition source(heat, spark, flame, etc.).
- 3) Incompatible materials
  - Combustibles, reducing material.
- 4) Hazardous decomposition products
  - Corrosive/toxic fume.
  - Irritating, corrosive and/or toxic gas.

## 11. Toxicological information

- 1) Information on the likely routes of exposure
  - No data available
  
- 2) Delayed and immediate effects and also chronic effects from short and long term exposure
  - Acute toxicity
    - Acute toxicity(Oral) LD50 (Rat) : > 8,000 mg/kg
      - Polyethylene
      - : LD50> 8000 mg / kg experimental species: Rat
    - Acute toxicity(Dermal) PRODUCT : Not classified
      - No data available
    - Acute toxicity(Inhalation:Gases) PRODUCT : Not classified
      - No data available
    - Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
      - No data available
    - Acute toxicity(Inhalation:Dust/mist) LC50 (Rat) : 75.5 mg/l (Exposure time : 30 min)
      - Polyethylene
      - : LC50 75.5 mg / l 30 min experimental species: Rat
  - Skin corrosion/irritation PRODUCT : Not classified
    - No data available
  - Serious eye damage/eye irritation PRODUCT : Not classified

- No data available
- Respiratory sensitization PRODUCT : Not classified
  - No data available
- Skin sensitization PRODUCT : Not classified
  - No data available
- Carcinogenicity PRODUCT : Not classified
  - Polyethylene
  - : 3 (IARC)
- Germ cell mutagenicity PRODUCT : Not classified
  - No data available
- Reproductive toxicity PRODUCT : Not classified
  - No data available
- Specific target organ toxicity single exposure PRODUCT : Category 3(Respiratory tract irritation)
  - Polyethylene
  - : If breathing dust causes inflammation of the lungs in laboratory animals (rats).
- Specific target organ toxicity repeated exposure PRODUCT : Not classified
  - No data available
- Aspiration hazard PRODUCT : Not classified
  - No data available

## 12. Ecological information

### 1) Ecotoxicity

- Fish
  - No data available
- Crustaceans
  - No data available
- Aquatic algae
  - No data available

### 2) Persistence and degradability

- Degradability
  - No data available
- Biodegradation
  - No data available

### 3) Bioaccumulative potential

- n-octanol water partition coefficient
  - No data available
- Bioconcentration factor(BCF)

No data available

4) Mobility in soil

No data available

5) Other adverse effects

No data available

### 13. Disposal considerations

1) Disposal methods

- Empty containers should be taken to an approved waste handling site for recycling or disposal.

2) Precautions (including disposal of contaminated container or package)

- Dispose of in accordance with local regulations.
- Send to a licensed waste management company.

### 14. Transport information

1) UN No. : Not applicable

2) Proper shipping name : Not applicable

3) Hazard class : Not applicable

4) Packing group : Not applicable

5) Marine pollutant : No

6) Special precautions for user related to transport or transportation measures :

Emergency measures in case of fire : Not applicable

Emergency measures in the effluent : Not applicable

- ADR

· Tunnel restriction code : Not applicable

- IMDG

· Marine pollutant : No

- Air transport(IATA)

· UN No. : Not applicable

· Proper shipping name : Not applicable

· Class or division : Not applicable

· Packing group : Not applicable

## 15. Regulatory information

Australia Industrial Chemicals Notification and Assessment Act

- Inventory - Australia - Inventory of Industrial Chemicals (AIIC)
- Polyethylene : Present

China Inventory of Existing Chemical Substances (IECSC)

- Inventory - China - Inventory of Existing Chemical Substances (IECSC)
- Polyethylene : Present [05721]

92/32/EEC

- Not applicable

European Union Official Journal of the European Communities 15 June 1990 - Annex Based on Article 13 of Directive 67/548/EEC Amended by Directive 79/831/EEC

- Not applicable

Japan - ISHL Ordinance Hazardous Substances Whose Names Are to be Indicated on the Label

Japan Law Concerning the Examination and Regulations of Manufacture, etc. of Chemical Substances

- Inventory - Japan - Existing and New Chemical Substances (ENCS)
- Polyethylene : (6)-1

New Zealand Environmental Protection Authority, Inventory of Chemicals

- Inventory - New Zealand - Inventory of Chemicals (NZIoC)
- Polyethylene : May be used as a single component chemical under an appropriate group standard

Turkey Regulation on Inventory and Control of Chemicals

- Not applicable

Taiwan Chemical Substance Inventory

- Inventory - Taiwan - Taiwan Chemical Substance Inventory (TCSI)
- Polyethylene : Present

U.S. Toxic Substances Control Act

Vietnam National Chemicals Inventory (NCI)

- Inventory - Vietnam - National Chemicals Inventory (NCI) (DRAFT)
- Polyethylene : Present 12086

## 16. Other information

### 1) Reference

NCIS, KOSHA, Montreal Protocol, ECHA, OECD SIDS, EU IUCLID, HSDB(PubChem), NITE, NTP, ACGIH, IARC, NIOSH, ChemIDplus, EPA, EPI Suite, INCHEM

### 2) Issue date : 26-12-2022

### 3) Revision date

- Revised date count : 3-1
- Last revised date : 01-06-2026

### 4) Other

ACGIH : American Conference of Governmental Industrial Hygienists  
ADR : Agreement Concerning the International Carriage of Dangerous Goods by Road  
ATE : The Acute Toxicity Estimate  
ECHA : European Chemicals Agency  
EPA : United States Environmental Protection Agency  
EPI Suite : The Estimation Programs Interface for Windows  
EU IUCLID : International Uniform Chemical Information Database  
HSDB : Hazardous Substances Data Bank  
IARC : International Agency for Research on Cancer  
IATA : International Air Transport Association  
IMDG : International Maritime Dangerous Goods Codes  
INCHEM : Internationally Peer Reviewed Chemical Safety Information  
M-Factor : The Multiplication Factor  
NIOSH : National Institute of Occupational Safety and Health  
NITE : National Institute of Technology and Evaluation(JAPAN)  
NTP : National Toxicology Program  
SCL : Specific Concentration Limit  
OECD SIDS : Organization for Economic Co-operation and Development Screening Information Dataset

GHS/EN