

# Safety Data Sheet(SDS)

Last revised date : 21-09-2023

## 1. Identification

1) Product identifier : VPEG-2400

2) Recommended use of the chemical and restrictions on use

○ Recommended use of the chemical

Feed materials, Intermediates

○ Restrictions on use

Use for recommended use only

Do not use it for weapons manufacturing and related purposes.

3) Details of the supplier of the safety data sheet

○ Seller

Company name : Lotte Chemical Corporation

Address : 05551 Lotte World Tower, 300, Olympic-ro, Songpa-gu, Seoul, 05551 Rep. of KOREA

Telephone number :

|                 |                |                    |                 |
|-----------------|----------------|--------------------|-----------------|
| Basic Chemicals | +82-2-829-4114 | Advanced Materials | +82-31-596-3114 |
|-----------------|----------------|--------------------|-----------------|

Emergency phone number

|              |                 |                                 |                 |
|--------------|-----------------|---------------------------------|-----------------|
| Yeosu Plant  | +82-61-688-2100 | Ulsan Plant                     | +82-52-278-3500 |
| Daesan Plant | +82-41-689-5900 | Yeosu Plant(Advanced Materials) | +82-61-689-1100 |

Fax number : +82-2-834-6070

## 2. Hazards identification

1) Hazard classification

- Not applicable

2) Allocation label elements

Hazard pictograms

- Not applicable

Signal word

- NONE

Hazard statements

- Not applicable

## Precautionary statements

- Not applicable

### 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%) |
|--|--|------------|--------------|
| Poly(oxy-1,2-ethanediyl),<br>.alpha.-(2-methyl-2-propen-1-yl)-, .omega.-hydroxy- | Polyethylene glycol mono alkyl allyl ether | 31497-33-3 | 100          |

## 4. First-aid measures

- 1) Following eye contact
  - Call a physician immediately.
- 2) Following skin contact
  - Get medical attention if irritation develops and persists.
  - Remove contaminated clothing and shoes.
- 3) Following inhalation
  - If symptoms persist, call a physician.
  - Move to fresh air.
- 4) Following ingestion
  - If accidentally swallowed obtain immediate medical attention.
- 5) Delayed and immediate effects and also chronic effects from short and long term exposure  
No data available
- 6) Advice to physician
  - In the case of accident or if you feel unwell, seek medical advice immediately.

## 5. Fire-Fighting measures

- 1) Suitable (and unsuitable) extinguishing media
  - Suitable extinguishing media
    - Large fire: Water spray/fog, regular foam (Suitable extinguishing media).
    - Small fire: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2 (Suitable extinguishing media).
    - Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
  - Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.

## 2) Special hazards arising from the substance or mixture

- Pyrolytic product
  - No data available
- Risk of fire and explosion
  - Heating or fire can release toxic gas.
- Other
  - May cause toxic effects if inhaled.

## 3) Special protective equipment for firefighters

- In the event of fire, wear self-contained breathing apparatus.

# 6. Accident release measures

## 1) Personal precautions, protective equipment and emergency procedures

- Avoid dust formation.

## 2) Environmental precautions

- Try to prevent the material from entering drains or water courses.

## 3) Methods and materials for containment and cleaning up

- Keep in suitable, closed containers for disposal.
- Pick up and arrange disposal without creating dust.

# 7. Handling and storage

## 1) Precautions for safe handling

- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.

## 2) Conditions for safe storage (including any incompatibilities)

- Please note that materials and conditions to be avoided.
- Store in a dry place. Store in a closed container.

# 8. Exposure controls & personal protection

## 1) Chemical exposure limits, Biological exposure standard

- Contains no substances with occupational exposure limit values.

## 2) Appropriate engineering controls

- Ensure adequate ventilation and exhaust ventilation at the workplace.

## 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                               | solid                     |        |
| Color  | white                     |        |
| Odor   | slight                    |        |
| Odor threshold                               | No data available         |        |
| pH   | 5.5 - 7.5                 |        |
| Melting point/freezing point                 | 55.7 °C                   |        |
| Initial boiling point and boiling range(°C)  | Not applicable            |        |
| Flash point(°C)                              | > 250 °C                  |        |
| Evaporation rate                             | Not applicable            |        |
| Flammability(solid, gas)                     | No data available         |        |
| Upper/lower flammability or explosive limits | No data available         |        |
| Vapour pressure                              | < 0.013 hPa (20 °C)       |        |
| Solubility(ies)                              | Solubility : 70 g/L 20 °C |        |
| Vapour density                               | Not applicable            |        |
| Relative density                             | No data available         |        |
| n-octanol/water partition coefficient        | Not applicable            |        |
| Auto ignition temperature                    | No data available         |        |
| Decomposition temperature                    | No data available         |        |
| Viscosity(mm²/s, 40°C)                       | No data available         |        |
| Molecular weight(mass)                       | 2,400 g/mol               |        |
| Specific gravity                             | 1.08 (65 °C)              |        |

## 10. Stability and reactivity

- 1) Chemical stability and Possibility of hazardous reactions
  - No decomposition if stored and applied as directed.
  - Stable at normal ambient temperature and pressure.
- 2) Conditions to avoid
  - Follow precautionary advice and avoid incompatible materials and conditions
- 3) Incompatible materials
  - Combustible material
- 4) Hazardous decomposition products
  - This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regula

## 11. Toxicological information

### 1) Information on the likely routes of exposure

- No data available

### 2) Health hazard information

- Acute toxicity
  - Acute toxicity(Oral)
    - No data available
  - Acute toxicity(Dermal)
    - No data available
  - Acute toxicity(Inhalation:Gases)
    - No data available
  - Acute toxicity(Inhalation:Vapours)
    - No data available
  - Acute toxicity(Inhalation:Dust/mist)
    - No data available
- Skin corrosion/irritation
  - No data available
- Serious eye damage/eye irritation
  - No data available
- Respiratory sensitization
  - No data available
- Skin sensitization

- No data available
- Carcinogenicity
  - No data available
- Germ cell mutagenicity
  - No data available
- 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
  - No data available

## 12. Ecological information

- 1) Ecotoxicity
  - Hazardous to the aquatic environment, short-term (acute)  
No data available
  - Hazardous to the aquatic environment, long-term (chronic)  
No data available
- 2) Persistence and degradability  
No data available
- 3) Bioaccumulative potential  
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 : Not applicable
- 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 : Not applicable
- Air transport(IATA)
  - UN No. : Not applicable
  - Proper shipping name : Not applicable
  - Class or division : Not applicable
  - Packing group : Not applicable
- Maritime transport in bulk according to IMO instruments :
  - Not applicable

## 15. Regulatory information

Australia Industrial Chemicals Act

- Not applicable

China Inventory of Existing Chemical Substances (IECSC)

- Not applicable

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

- Inventory - Japan - Existing and New Chemical Substances (ENCS)

- Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-2-propen-1-yl)-, .omega.-hydroxy- : (7)-97

New Zealand Environmental Protection Authority, Inventory of Chemicals

- Not applicable

Turkey Regulation on Inventory and Control of Chemicals

- Not applicable

Taiwan Chemical Substance Inventory

- Not applicable

U.S. Toxic Substances Control Act

- Inventory - United States - Section 8(b) Inventory (TSCA)

- Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-2-propen-1-yl)-, .omega.-hydroxy- : Present [PMN; S; 5E] (ACTIVE)

Vietnam National Chemicals Inventory (NCI)

- Inventory - Vietnam - National Chemicals Inventory (NCI) (DRAFT)

- Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-2-propen-1-yl)-, .omega.-hydroxy- : Present 34765

## 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 : 2-2

- Last revised date : 21-09-2023

### 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