LG Chem

Last revised date : 2022-06-16

PCN No. :

Safety Data Sheet(SDS)

1. Identification of the substance/mixture and of the company/undertaking

1) Product identifier : PEXL8080UCS

2) Relevant identified uses of the substance or mixture and uses advised against

○ Relevant identified uses

48.Others (For wire cable insulation)

○ Uses advised against

3) Supplier information

○ Company name [Manufacture]

Company : LG Chem, Ltd.

Address : 54, Dokgot 1-ro, Daesan-eup, Seosan-si, Chungcheongnam-do, Republic of Korea

Emergency number : 82-041-661-2674

2. HAZARD 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/vapours.

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 If you feel uncomfortable, receive medical institutions and doctors' consultation.

- Storage

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

P405 Store locked up.

- Disposal

P501 Dispose of contents and containers according to the legislation of the waste

3) Other hazards

○ Product NFPA Level

Health	Flamm abliity	Reactivity
2	0	0

(※ 0 = Insufficient , 1 = Slightly , 2 = ordinary , 3 = Highness , 4 = Very high)

3. Composition/Information on ingredients

Components	EU REACH No.	CAS No.	PCT(wt%)
Polyethylene		9002-88-4	97.0~99.0
└ Ethylene	01-2119462827-27-0081	74-85-1	96.5~97.5
└ Propylene	01-2119447103-50	115-07-1	0.5~1.5
Bis(1-methyl-1-phenylethyl) peroxide	01-2119541688-27	80-43-3	0.5~3.0
4,4'-Thiobis(3-methyl-6-tert-butylphenol)	01-2119514452-49	96-69-5	0.1~1.0

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 medial 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 medial 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 medial assistance.

5) 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
- CO_2.
- Dry chemical.
- Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
- Use dry sand or earth to smother fire.
- 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
- No data available

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. ACCIDENTAL RELEASE MEASURES

1) Health considerations and protective equipment
- 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) For 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 AND PERSONAL PROTECTION

1) Chemical exposure limits, Biological exposure standard

Components	Occupational exposure limits	ACGIH	Biological standard
Polyethylene	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable
└ Ethylene	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable
└ Propylene	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable
Bis(1-methyl-1-phenylethyl) peroxide	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable
4,4'-Thiobis(3-methyl-6-tert-butylphenol)	TWA : Not applicable STEL : Not applicable	TWA : 1mg/m3 STEL : Not applicable	Not applicable

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 protection equipment

○ Respiratory protection

- If high frequency of use or exposure, wear air respirator.
- Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.

○ Eye protection

- Wear suitable protective goggles and face shields.

○ Hand protection

- Wear suitable protective gloves.

○ Body protection

- Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	No data available
Physical state	Solid
Colour	No data available

Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability(solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Solubility(ies)	No data available
Vapour density	No data available
Relative density	No data available
n-octanol/water partition coefficient	No data available
Auto ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Molecular weight(mass)	No data available

10. STABILITY AND REACTIVITY

1) Stability and hazardous reactivity

- 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) Exposure route information

○ Inhalation

- May cause respiratory irritation

○ Skin Contact

- Not applicable

○ Eye Contact

- Not applicable

○ Ingestion

- Not applicable

2) Health hazard information

○ Acute toxicity

● Acute toxicity(Oral) PRODUCT : Not classified(ATEmix = 230337.08mg/kg)

- Polyethylene : LD50> 8000 ㎎ / ㎏ experimental species: Rat, Source: RTECS
- Bis(1-methyl-1-phenylethyl) peroxide : LD50 4100 ㎎ / ㎏ experimental species: Rat
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : LD50 2315 ㎎ / ㎏ experimental species: Rat, Source: ECHA

● Acute toxicity(Dermal) PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : LD50 5010 ㎎ / ㎏ experimental species: Guinea pig, Source: ECHA

● Acute toxicity(Inhalation:Gases) PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

● Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

● Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified

- Polyethylene : LC50 75.5 ㎎ / ℓ 30 min experimental species: Rat, Source: RTECS
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

○ Skin corrosion/irritation PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : EU skin irritation

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Skin with a rabbit, corrosion / irritation Test Results reversible erythema, edema but no noticeable effect occurs (erythema index: 1.6 swelling index: 0.6) (OECD Guideline 404), Source: ECHA

○ Serious eye damage/eye irritation PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : Not irritant European Union

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : That this serious eye damage / irritation tests reversible mild irritation caused by rabbits, Source: NITE

○ Respiratory sensitization PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

○ Skin sensitization PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Skin sensitization test using guinea pigs also results in a positive reaction occurs irritation test, Source: ECHA

○ Carcinogenicity PRODUCT : Not classified

- Polyethylene : 3 (IARC), Source: IARC

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : A4 (ACGHI), Source: ACGHI

○ Germ cell mutagenicity PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Existent voice (OECD Guideline 471) in vitro mutation test using E. coli voice (OECD Guideline 472) in vitro chromosome aberration test results of metabolic activation using My mammals boundaries, regardless of the examiner returns with microbial mutation test results of metabolic activation system presence when you do a voice (OECD Guideline 473) or more chromosomes using in vivo mammalian bone marrow cells, test results negative (OECD Guideline 475, GLP), Source: ECHA

○ Reproductive toxicity PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Using mouse developmental toxicity test maternal mortality rate is increased, the influence of the decrease observed pups survival search LD10 = 485 mg / kg bw / day (GLP), Source: ECHA

○ 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)., Source: Kochetkova, 1971

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

○ Specific target organ toxicity repeated exposure PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Oral Toxicity (28d) results that this one anemia associated with hematopoietic occurs outside the bone marrow NOEL = 15 mg / kg bw / day (GLP) were not 13 weeks oral repeated toxicity tests deaths animals using mice, the highest concentration using rat also the 345 mg / kg bw / day group in spleen weight increase, feed consumption, reduced red blood cell number, hematocrit concentration decreased from 145 mg / kg bw / day group. NOAEL is difficult to determine (GLP), Source: ECHA

○ Aspiration hazard PRODUCT : Not classified

- Polyethylene : No data available

- Bis(1-methyl-1-phenylethyl) peroxide : No data available

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

- Fish>PRODUCT : Not classified

  - Polyethylene : No data available
  - Bis(1-methyl-1-phenylethyl) peroxide : LC50 108 ㎎ / ℓ 96 hr ()
  - 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : LC50 0.36 ㎎ / ℓ 96 hr Pimephales promelas (EPA, Ecol Res Series 660 / 3-75-009:.. Methods for acute toxicity tests with fish, macroinvertebrates and amphibians (1975))

- Crustacea>PRODUCT : Not classified

  - Polyethylene : No data available
  - Bis(1-methyl-1-phenylethyl) peroxide : No data available
  - 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : EC50 0.16 ㎎ / ℓ 48 hr Daphnia magna (OECD Guideline 202, GLP), Source: OECD

- Aquatic algae>PRODUCT : Not classified

  - Polyethylene : No data available
  - Bis(1-methyl-1-phenylethyl) peroxide : No data available
  - 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : ErC50 0.455 ㎎ / ℓ 96 hr other (Green algae), Source: ECHA

2) Persistence and degradation

- n-octanol water partition coefficient>PRODUCT : Not classified

  - Polyethylene : No data available
  - Bis(1-methyl-1-phenylethyl) peroxide : 5.5 log Kow ()

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : 5.24 log Kow (), Source: ECHA

- Degradation>PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

- Biodegradation>PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : 18 (%) 28 day ((aerobic, not primarily home sewer, not easily decomposed))
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : 0% 28 day (recalcitrant)

3) Bioaccumulative potential>PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : 439 ()
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

4) Mobility in soil>PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : No data available

5) Other adverse effects>PRODUCT : Not classified

- Polyethylene : No data available
- Bis(1-methyl-1-phenylethyl) peroxide : No data available
- 4,4'-Thiobis(3-methyl-6-tert-butylphenol) : Crustacea: Daphnia magna: NOEC, 21d, = 7.1 ug / L, OECD Guideline 211, GLP, Source: ECHA

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Every commercial waste producer shall either treat wastes generated from his/her place of business by him/herself or commission the treatment of such wastes to a person who has license for a waste treatment business under Article 26(3), a person who recycles of such wastes under Article 44(2), a person who has installed and operates a waste disposal facility under Article 4 or 5, a person who has completed the registration of a business of discharging wastes into the sea under Article 18 of the Marine Environment Management Act.

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

- Do not allow spill material to enter sewers, storn water drains, soil, etc.

14. TRANSPORT INFORMATION

1) UN No. : Not applicable

2) Proper shipping name : Not applicable

3) Class or division : Not applicable

4) Packing group : Not applicable

5) Marine pollutant : Not applicable

6) Special safety response for transportation or transportation measure :

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

15. REGULATORY INFORMATION

● Global Inventory - EU. European Inventory of Existing Commercial Chemical Substances (EINECS)

- Bis(1-methyl-1-phenylethyl) peroxide

- 4,4'-Thiobis(3-methyl-6-tert-butylphenol)

● ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances (L286, Vol. 52, 31 Octobe

Not applicable

● ETC regulation - EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17, 24 November 2010

Not applicable

● ETC regulation - EU. Regulation No 850/2004 prohibiting and restricting persistant organic pollutants (POPs), as last amended by Regulation No 51

Not applicable

● ETC regulation - EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances (Reg 1907/2006

Not applicable

● ETC regulation - EU. GHS Classification. CLP Reg. No 1272/2008 of 16 Dec 2008, Annex VI, Table 3.1, List of harmonized classification & labelling

- Bis(1-methyl-1-phenylethyl) peroxide

● ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances (L286, Vol. 52, 31 October 2009

Not applicable

● ETC regulation - EU. REACH, Annex XIV, Substances Subject to Authorization, as amended through Regulation No 895/2014 of 19 August 2014

Not applicable

● ETC regulation - EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, OJ (L 197)1, 24 July 2012

- Bis(1-methyl-1-phenylethyl) peroxide

● ETC regulation - EU. Regulation EU No. 649/2012, Annex V, Chemicals and articles subject to export ban, OJ L 201, p. 60, 27 July 2012

Not applicable

● ETC regulation - EU. Annexes I, II (F-gases subject to emission limits/reporting), IV (GWPs for mixture calculations), Reg. 517/2014/EU on fluori

Not applicable

16. OTHER INFORMATION

1) Reference

- ECHA
- EU CLP
- Kochetkova, 1971
- NITE
- OECD
- RTECS

2) Print date : 2022-06-16

3) Revision date

○ Revised date count : 0

○ Last revised date : 2022-06-16

○ Last revised history :

4) Other

Portugal CIAV phone number: +351 800 250 250