

SAFETY DATA SHEET

North American Version

EURECO (TM) LX10

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation

Product name : EURECO (TM) LX10
Synonyms : PAP
Molecular formula : C₁₄H₁₅NO₅

1.2. Use of the Substance/Preparation

Recommended use : - Agriculture industry
- Bleaching agent
- Cleaning agent
- Chemical industry
- Detergent
- Domestic use
- Oxidizing agents

1.3. Company/Undertaking Identification

Address : SOLVAY CHEMICALS, INC.
3333 RICHMOND AVENUE
HOUSTON TX 77098-3099
United States

1.4. Emergency and contact telephone numbers

Emergency telephone : 1 (800) 424-9300 CHEMTREC® (USA & Canada)
01-800-00-214-00 (MEX. REPUBLIC)

Contact telephone number : US: +1-800-765-8292 (Product information)
(product information): US: +1-713-525-6500 (Product information)

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

NFPA : H= 2 F= 0 I= 0 S= OX
HMIS : H= 2 F= 0 R= 0 PPE = Supplied by User; dependent on local conditions

General Information

Appearance : viscous liquid, suspension
Colour : white
Odour : odourless

Main effects

- Oxidising
- Contact with combustible material may cause fire.
- Risk of serious damage to eyes.

- Hazardous decomposition products formed under fire conditions.

2.2. Potential Health Effects:

Inhalation

- May cause nose, throat, and lung irritation.

Eye contact

- Severe eye irritation
- Lachrymation
- Redness
- Swelling of tissue
- Risk of serious damage to eyes.

Skin contact

- slight irritation
- Prolonged skin contact may cause skin irritation.

Ingestion

- Severe irritation
- Irritation of the mouth and throat.
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
- Repeated contact may cause allergic reactions in very susceptible persons.
- Risk of violent reaction.

Other toxicity effects

- See section 11: Toxicological Information

2.3. Environmental Effects:

- See section 12: Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

6-(Phthalimido) peroxyhexanoic acid

CAS-No.	:	128275-31-0
ELINCS No.	:	410-850-8
Concentration	:	appr. 10.0 %

4. FIRST AID MEASURES

4.1. Inhalation

- Remove to fresh air.

4.2. Eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Consult with an ophthalmologist immediately in all cases.

4.3. Skin contact

- Remove and wash contaminated clothing before re-use.
- Wash off with plenty of water.
- If symptoms persist, call a physician.

4.4. Ingestion

- Call a physician immediately.

If victim is conscious:

- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.

If victim is unconscious but breathing:

- Artificial respiration and/or oxygen may be necessary.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- Water
- Water spray
- powder
- Foam
- Carbon dioxide (CO₂)

5.2. Extinguishing media which shall not be used for safety reasons

- None.

5.3. Special exposure hazards in a fire

- Oxidising
- Oxygen released in thermal decomposition may support combustion
- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.

5.4. Hazardous decomposition products

- Oxygen
- Flammable aerosols
- The release of other hazardous decomposition products is possible.

5.5. Special protective equipment for fire-fighters

- Evacuate personnel to safe areas.
- In the event of fire, wear self-contained breathing apparatus.
- When intervention in close proximity wear acid resistant over suit.
- Clean contaminated surface thoroughly.

5.6. Other information

- Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Keep people away from and upwind of spill/leak.
- Refer to protective measures listed in sections 7 and 8.
- Isolate the area.
- Keep away from Incompatible products.
- Prevent further leakage or spillage if safe to do so.
- In case of contact with combustible material, keep material wet with plenty of water.

6.2. Environmental precautions

- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.

6.3. Methods for cleaning up

- Dam up.
- Soak up with inert absorbent material.
- Prevent product from entering drains.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

7.1. Handling

- Use only in well-ventilated areas.
- Keep away from heat.
- Keep away from Incompatible products.
- May not get in touch with:
 - Organic materials
- Use only equipment and materials which are compatible with the product.
- Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
- Never return unused material to storage receptacle.
- Use only in an area with adequate water supply
- Containers and equipment used to handle the product should be used exclusively for that product.

7.2. Storage

- Keep container tightly closed.
- Keep in a cool, well-ventilated place.
- Keep away from heat.
- Keep away from Incompatible products.
- Keep in a banded area.

7.3. Packaging material

- Suitable material
- Stainless steel
- Plastic material
- glass
- Unsuitable material
- Copper

7.4. Other information

- Provide tight electrical equipment well protected against corrosion.
- Refer to protective measures listed in sections 7 and 8.
- In industrial installations, apply the rules for the prevention of major accidents (consult an expert).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limit Values

6-(Phthalimido) peroxyhexanoic acid

- SAEL (Solvay Acceptable Exposure Limit) 2008
TWA = 3 mg/m³

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SAEL = Solvay Acceptable Exposure Limit, Time Weighted Average for 8 hour workdays. No Specific TLV STEL (Short Term Exposure Level) has been set. Excursions in exposure level may exceed 3 times the TLV TWA for no more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV TWA.

8.2. Engineering controls

- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.
- Refer to protective measures listed in sections 7 and 8.

8.3. Personal protective equipment

8.3.1. Respiratory protection

- In the case of dust or aerosol formation use respirator with an approved filter.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.

8.3.2. Hand protection

- Wear suitable gloves.
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Suitable material: butyl-rubber

8.3.3. Eye protection

- Chemical resistant goggles must be worn.
- If splashes are likely to occur, wear:
 - Tightly fitting safety goggles
 - Face-shield

8.3.4. Skin and body protection

- Protective suit
- Apron/boots of butyl rubber if risk of splashing.

8.3.5. Hygiene measures

- Use only in an area equipped with a safety shower.
- Eye wash bottle with pure water
- When using do not eat, drink or smoke.
- Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information

Appearance	: viscous liquid, suspension
Colour	: white
Odour	: odourless

9.2. Important health safety and environmental information

pH	: 3.5
Boiling point/boiling range	: <i>Remarks: not applicable</i>
Flash point	: <i>Remarks: The product is not flammable.</i>
Flammability	: <i>Remarks: The product is not flammable.</i>
Explosive properties	: <u><i>Explosion danger:</i></u> <i>Remarks: not applicable</i>
Oxidizing properties	: <i>Remarks: Oxidizer</i>
Vapour pressure	: <i>Remarks: not applicable</i>
Relative density / Density	: 1 - 1.1
Solubility	: Water <i>Remarks: insoluble</i>

Partition coefficient: n-octanol/water	:	<i>log Pow:</i> 2.2 (6-(Phthalimido) peroxyhexanoic acid)
Viscosity	:	500 mPa.s
Vapour density	:	<i>Remarks:</i> not applicable

9.3. Other data

Melting point/range	:	75 °C (167 °F)
Auto-flammability	:	470 °C (878 °F) (6-(Phthalimido) peroxyhexanoic acid)

10. STABILITY AND REACTIVITY

10.1. Stability

- Chemically very reactive
- Stable under recommended storage conditions.

10.2. Conditions to avoid

- To avoid thermal decomposition, do not overheat.
- Keep away from direct sunlight.

10.3. Materials to avoid

- Reducing agents, Carbamates, Sulphides, Copper alloys, Nitrides, Nitriles, Dithiocarbamates, Mercaptans

10.4. Hazardous decomposition products

- Oxygen, Flammable aerosols, The release of other hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Acute oral toxicity

- LC50, rat, > 2,000 mg/kg (6-(Phthalimido) peroxyhexanoic acid)

Acute dermal irritation/corrosion

- LC50, rat, > 2,000 mg/kg (6-(Phthalimido) peroxyhexanoic acid)

Skin irritation

- rabbit, Mild skin irritation (6-(Phthalimido) peroxyhexanoic acid)

Eye irritation

- rabbit, Risk of serious damage to eyes. (6-(Phthalimido) peroxyhexanoic acid)

Sensitisation

- guinea pig, Did not cause sensitization on laboratory animals. (6-(Phthalimido) peroxyhexanoic acid)

Chronic toxicity

- 28-day, rat, NOEL: 100 mg/kg, (6-(Phthalimido) peroxyhexanoic acid), Remarks: Subacute toxicity

Genetic toxicity in vitro

- In vitro tests did not show mutagenic effects

Genetic toxicity in vivo

- Animal testing did not show any mutagenic effects.

Teratogenicity

- rabbit, (6-(Phthalimido) hexanoic acid), Remarks: Did not show teratogenic effects in animal experiments.

Remarks

- No data is available on the product itself.

- Information refers to the main component.
- Risk of serious damage to eyes.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Fishes, Brachydanio rerio, LC50, 96 h, 0.4 mg/l (6-(Phthalimido) peroxyhexanoic acid)
- Fishes, Brachydanio rerio, NOEC, 96 h, 0.1 mg/l (6-(Phthalimido) peroxyhexanoic acid)
- Crustaceans, Daphnia magna, EC50, 48 h, 17.6 mg/l (6-(Phthalimido) peroxyhexanoic acid)
- Crustaceans, Daphnia magna, NOEC, 48 h, 8.9 mg/l (6-(Phthalimido) peroxyhexanoic acid)

Chronic toxicity

- Algae, Selenastrum capricornutum, EC50, 72 h, 1.3 mg/l (6-(Phthalimido) peroxyhexanoic acid)

Further information on ecology

- Bacteria, Pseudomonas aeruginosa, EC50, 100 mg/l (6-(Phthalimido) peroxyhexanoic acid)

12.2. Mobility

- Remarks: no data available

12.3. Persistence and degradability

Abiotic degradation

- $t_{1/2} = 1.6$ d (6-(Phthalimido) peroxyhexanoic acid)
 - $t_{1/2} < 0.1$ h (6-(Phthalimido) peroxyhexanoic acid)
- Conditions: biological treatment sludge

Biodegradation

- 70 %, 28 d (6-(Phthalimido) peroxyhexanoic acid)
- Biochemical Oxygen Demand (BOD) 89 % (6-(Phthalimido) peroxyhexanoic acid)
- Result: Readily biodegradable.

12.4. Bioaccumulative potential

- $\log Pow < 3$
Result: Does not bioaccumulate.

12.5. Other adverse effects

- no data available

12.6. Remarks

- Information refers to the main component.
- Very toxic to aquatic organisms.
- Nevertheless, hazard for the environment is limited due to product properties:
 - . ready biodegradability.
 - . weak persistence of degradation products.
 - . low bioaccumulation potential.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Dilute with plenty of water.
- Dispose of wastes in an approved waste disposal facility.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.
- In accordance with local and national regulations.

13.2. Packaging treatment

- Clean container with water.

- Dispose of as unused product.
- The empty and clean containers are to be reused in conformity with regulations.
- If recycling is not practicable, dispose of in compliance with local regulations.

13.3. RCRA Hazardous Waste

- Listed RCRA Hazardous Waste (40 CFR 302) - No
- Unlisted RCRA Hazardous Waste (40 CFR 302) - No

14. TRANSPORT INFORMATION

- not regulated
- Not a substance of Class 5.2
- It is recommended that ERG Guide number 111 be used for all non-regulated material.

15. REGULATORY INFORMATION

15.1. Inventory Information

Toxic Substance Control Act list (TSCA)	: -	In compliance with inventory.
Australian Inventory of Chemical Substances (AICS)	: -	One or more components not listed on inventory.
Canadian Domestic Substances List (DSL)	: -	One or more components not listed on inventory.
China Inv. Existing Chemical Substances (INV (CN))	: -	In compliance with inventory.
Korea Existing Chemicals Inv. (KECI) (KECI (KR))	: -	One or more components not listed on inventory.
EU list of existing chemical substances (EINECS)	: -	In compliance with inventory, The formulation contains ELINCS substances..
Japanese Existing and New Chemical Substances (MITI List) (ENCS)	: -	One or more components not listed on inventory.
Philippine Inventory of Chemicals and Chemical Substances (PICCS)	: -	One or more components not listed on inventory.
New Zealand Inventory (in preparation) (NZ)	: -	One or more components not listed on inventory.

15.2. Other regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

SARA Hazard Designation (SARA 311/312)

- Acute Health Hazard: Yes.
- Fire Hazard: Yes.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- not regulated.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

- not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

- not regulated.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

- not regulated.

15.3. Classification and labelling

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)

- C Oxidizing Material
- D2B Toxic Material Causing Other Toxic Effects

Remarks: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

EC Label

- The product is classified and labelled in accordance with Directive 1999/45/EC.

Symbol(s)	O Xi	Oxidising Irritant
R-phrases(s)	R 8 R41	Contact with combustible material may cause fire. Risk of serious damage to eyes.
S-phrases(s)	S 3/7 S14 S26 S36/37/39	Keep container tightly closed in a cool place. Keep away from Combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION

Ratings :

NFPA (National Fire Protection Association)

Health = 2 Flammability = 0 Instability = 0 Special =OX

HMIS (Hazardous Material Information System)

Health = 2 Fire = 0 Reactivity = 0 PPE : Supplied by User; dependent on local conditions

Further information

- Update
This data sheet contains changes from the previous version in section(s): 8.1

- Distribute new edition to clients

Material Safety Data Sheets contain country specific regulatory information; therefore, the MSDS's provided are for use only by customers of the company mentioned in section 1 in North America. If you are located in a country other than Canada, Mexico or the United States, please contact the Solvay Group company in your country for MSDS information applicable to your location. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure product). To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither the company mentioned in section 1 nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes. The company mentioned in section 1 reserves the right to make additions, deletions or modifications to the information at any time without prior notification. Trademarks and/or other products of the company mentioned in section 1 referenced herein are either trademarks or registered trademarks of the company mentioned in section 1 or its affiliates, unless otherwise indicated.

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