SAFETY DATA SHEET
North American Version

EURECO (TM) P17

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation

Product name	:	EURECO (TM) P17
Synonyms	:	PAP
Molecular formula	:	C14H15NO5

1.2. Use of the Substance/Preparation

Recommended use :

- Agriculture industry
- Bleaching agent
- Cleaning agent
- Detergent
- Domestic use
- Oxidizing agents
- Soil remediation
- Textile industry
- Chemical industry

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

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

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

General Information

Appearance	:	Crystals, powder, hygroscopic
Colour	:	white
Odour	:	odourless

Main effects

- Oxidising
- Contact with combustible material may cause fire.

SOLVAY Chemicals

SOLVAY

- Risk of serious damage to eyes.

2.2. Potential Health Effects:

Inhalation
- May cause nose, throat, and lung irritation.
- Repeated or prolonged exposure: Risk of sore throat, nose bleeds.
- (in case of higher concentration): Cough.

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

Skin contact
- Mechanical irritation from the particulates generated by the product.
- Prolonged skin contact may cause skin irritation.

Ingestion
- Severe irritation
- Irritation of the mouth and throat.
- Symptoms: Nausea, Abdominal pain, Vomiting, Diarrhoea.

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. 17.0 %**

Citric acid, monohydrate

CAS-No.	:	5949-29-1
Concentration	:	**< 15.0 %**

4. FIRST AID MEASURES

4.1. Inhalation
- Remove the subject from dusty environment and let him blow his nose.
- If symptoms persist, call a physician.

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
- Wash off with soap and water.
- Wash contaminated clothing before re-use.
- 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

- In the event of fire, wear self-contained breathing apparatus.
- Fire fighters must wear fire resistant personnel protective equipment.

5.6. Other information

- Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Refer to protective measures listed in sections 7 and 8.
- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid dust formation.

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

- Do not add chemical products.
- Pick up and arrange disposal without creating dust.
- All receiving equipment should be clean, vented, dry, labelled and made of material that is compatible with the product.
- Flush with plenty of water.

- Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

7.1. Handling

- Keep away from heat and sources of ignition.
- Carry out all operations in closed piping circuits and equipment.
- Handle small quantities under a lab hood.
- Use electrically conductive materials for piping circuits and equipment.
- Never return unused material to storage receptacle.
- Keep away from incompatible products
- Containers and equipment used to handle the product should be used exclusively for that product.
- Prevent product vapours decomposition from contacting hot spots.
- Keep at temperature not exceeding 40 °C.

7.2. Storage

- Keep in a cool, well-ventilated place.
- Keep away from direct sunlight.
- Keep away from incompatible products
- Keep away from combustible material.
- Regularly check the condition and temperature of the containers.
- The container must be used exclusively for the product.

7.3. Packaging material

- Suitable material
- Carton + PE
- Approved grades of HDPE.
- Polyethylene
- Unsuitable material
- Paper
- in cardboard box
- Textile

7.4. Other information

- Take appropriate measures to prevent static discharges, which may include thorough electrical interconnecting, grounding of equipment, and/or conveyance under inert gas.
- Provide electrical equipment safe for hazardous locations.
- Take measures to prevent the build up of electrostatic charge.
- Avoid dust formation.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- To avoid thermal decomposition, do not overheat.
- 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).
- Provide tight electrical equipment well protected against corrosion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limit Values

6-(Phthalimido) peroxyhexanoic acid

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

Citric acid, monohydrate

- US. ACGIH Threshold Limit Values

Remarks: none established

Silicon dioxide

- US. ACGIH Threshold Limit Values
  Remarks: none established
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
  time weighted average = 6 mg/m3
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 20 millions of particles per cubic foot of air
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 0.8 mg/m3
  Remarks: The exposure limit is calculated from the equation, 80/(%SiO2), using a value of 100% SiO2. Lower values of % SiO2 will give higher exposure limits.

ACGIH® and TLV® are registered trademarks of the American Conference of Governmental Industrial Hygienists.
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

- Provide appropriate exhaust ventilation at places where dust is formed.
- 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

- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Respirator with combination filter for vapour/particulate (EN 141).

8.3.2. Hand protection

- Wear suitable gloves.
- Suitable material: PVC, Neoprene, Natural Rubber

8.3.3. Eye protection

- Dust proof goggles obligatory.

8.3.4. Skin and body protection

- Wear suitable protective clothing.

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	:	Crystals, powder, hygroscopic
Colour	:	white
Odour	:	odourless

9.2. Important health safety and environmental information

pH	:	3.3 *Concentration*: 5 g/l

Flash point	:	*Remarks*: not applicable
Flammability	:	*Remarks*: The product is not flammable.
Explosive properties	:	*Minimum ignition energy*: 1 - 3 mJ *Explosion danger*: *Remarks*: Dust explosion class, no data available *Remarks*: Risk of explosion.
Oxidizing properties	:	*Remarks*: Oxidizer
Vapour pressure	:	*Remarks*: not applicable
Relative density / Density	:	1.4
Bulk density	:	0.65 g/cm3
Solubility	:	*Remarks*: soluble
Partition coefficient: n-octanol/water	:	*log Pow*: 2.2 (6-(Phthalimido) peroxyhexanoic acid)
Vapour density	:	*Remarks*: not applicable

9.3. Other data

Melting point/range	:	ca. 80 °C (176 °F)
Auto-flammability	:	470 °C (878 °F) (6-(Phthalimido) peroxyhexanoic acid)
Granulometry	:	< 150 µm
Decomposition temperature	:	> 80 °C (176 °F) *Remarks*: Self-Accelerating decomposition temperature (SADT)

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.
- Avoid dust formation.
- Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
- Keep at temperature not exceeding: 80 °C (176 °F)

10.3. Materials to avoid

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

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, (6-(Phthalimido) peroxyhexanoic acid)
  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.
Inventory of Existing Chemical Substances (China) (IECS)	:	-	In compliance with inventory.
Korea Existing Chemicals Inv.	:	-	One or more components not listed on inventory.

(KECI) (KECI (KR))		
EU list of existing chemical substances (EINECS)	: -	One or more components not listed on 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	Oxidising
	Xi	Irritant
R-phrase(s)	R 8	Contact with combustible material may cause fire.
	R41	Risk of serious damage to eyes.

S-phrase(s)	S 3/7	Keep container tightly closed in a cool place.
	S14	Keep away from Combustible material.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION

Ratings :

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): 15.2
- 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.