

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : ELECTROLYTE OPALU Product code : 17212.

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Registered company name : PRESI S.A.

Address : 1665 Route Napoléon - Tavernolles.38320.BRIE ET ANGONNES.France.

Telephone : +33 (0)4.76.72.00.21. Fax : +33 (0)4.76.72.05.84.

presi@presi.com

www.presi.com

1.4. Emergency telephone number : +33 (0)1.45.42.59.59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin corrosion, Category 1B (Skin Corr. 1B, H314).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Corrosive (C, R 34).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



| • | |
|------------------------------------|--|
| GHS05 | |
| Signal Word : | |
| DANGER | |
| Product identifiers : 015-011-00-6 | PHOSPHORIC ACID |
| Hazard statements : | |
| H314 | Causes severe skin burns and eye damage. |
| Precautionary statemen | ts - Prevention : |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P264 | Wash thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statemen | ts - Response : |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| | |



| P303 + P361 + P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. | | | | |
|-----------------------------------|--|--|--|--|--|
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. | | | | |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | | | | |
| P310 | Immediately call a POISON CENTER or doctor/physician. | | | | |
| P321 | Specific treatment (see on this label). | | | | |
| P363 | Wash contaminated clothing before reuse. | | | | |
| Precautionary statements - Storag | e : | | | | |
| P405 | Store locked up. | | | | |
| Precautionary statements - Dispos | sal : | | | | |
| P501 | Dispose of contents/container to | | | | |

2.3. Other hazards

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC) by the European CHemical s Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

3.2. Mixtures

| Composition : | | | | |
|---------------------|---------------------|--------------|------|-----------------|
| Identification | (EC) 1272/2008 | 67/548/EEC | Note | % |
| INDEX: 015-011-00-6 | GHS05 | С | В | 50 <= x % < 100 |
| CAS: 7664-38-2 | Dgr | C;R34 | [1] | |
| EC: 231-633-2 | Skin Corr. 1B, H314 | | | |
| PHOSPHORIC ACID | | | | |
| INDEX: 603-014-00-0 | GHS07 | Xn | [1] | 10 <= x % < 25 |
| CAS: 111-76-2 | Wng | Xn;R20/21/22 | | |
| EC: 203-905-0 | Acute Tox. 4, H332 | Xi;R36/38 | | |
| | Acute Tox. 4, H312 | | | |
| 2-BUTOXYETHANOL | Acute Tox. 4, H302 | | | |
| | Eye Irrit. 2, H319 | | | |
| | Skin Irrit. 2, H315 | | | |

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.



In the event of swallowing :

Do not give the patient anything orally.

Seek medical attention immediately, showing the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non fire-fighters

Avoid any contact with the skin and eyes.

For fire-fighters

Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Neutralise with an alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.



| Prohibited equipmer | - | | | | | |
|------------------------|---------------------|--------------------|--------------------|------------------|---------------|---------------------------------------|
| No smoking, eating | or drinking in area | s where the mixt | ure is used. | | | |
| 7.2. Conditions for sa | afe storage, includ | ling any incomp | atibilities | | | |
| No data available. | | | | | | |
| Packaging | | | | | | |
| Always keep in pacl | kaging made of an | identical materia | l to the original. | | | |
| 7.3. Specific end use | (s) | | | | | |
| No data available. | | | | | | |
| SECTION 8 : EXPOS | URE CONTROLS | S/PERSONAL F | PROTECTION | | | |
| 8.1. Control paramet | | | | | | |
| Occupational exposu | | | | | | |
| - European Union (2 | | 5/15/EC. 2000/39 | 9/EC. 98/24/EC |) | | |
| CAS | | : VME-ppm : | VLE-mg/m3 : | | Notes : | |
| 7664-38-2 | 1 | - | 2 | - | _ | |
| 111-76-2 | 98 | 20 | 246 | 50 | Peau | |
| - ACGIH TLV (Am | erican Conference | | | enists, Threshol | d Limit Value | 5, 2010) : |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 7664-38-2 | 1 mg/m3 | 3 mg/m3 | - | - | - | |
| 111-76-2 | 20 ppm | - | - | - | - | |
| - Germany - AGW (| BAuA - TRGS 900 | 0, 21/06/2010) : | | | | |
| CAS | VME : | VME : | Excess | Notes | | |
| 111-76-2 | 20 ml/m3 | 98 mg/m3 | 4(II) | DFG, H, Y | | |
| - France (INRS - EI | 0984 :2008) : | | | | | |
| CAS | VME-ppm : | VME-mg/m3 : | VLE-ppm : | VLE-mg/m3: | Notes : | TMP No : |
| 7664-38-2 | 0.2 | 1 | 0.5 | 2 | - | |
| 111-76-2 | 10 | 49 | 50 | 246 | * | 84 |
| - USA / NIOSH IDI | LH (National Instit | ute for Occupation | onal Safety and | Health, Immedia | tely Dangerou | s to Life or Health Concentrations) : |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 7664-38-2 | - | - | 1000 mg/m3 | - | - | |
| 111-76-2 | - | - | 700 ppm | - | - | |
| - UK / WEL (Work | place exposure lim | its, EH40/2005, 2 | | | | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 7664-38-2 | 1 mg/m3 | 2 mg/m3 | - | - | - | |
| 111-76-2 | 25 ppm | 50 ppm | - | - | - | |
| 8.2 Exposure contro | Ja | | | | | |

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.



In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVC (polyvinyl chloride)

- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| 7.1. Information on basic physical and chemical properties | |
|---|------------------------------|
| General information : | |
| Physical state : | fluid liquid. |
| Important health, safety and environmental information | |
| рН : | Not stated. strongly acidic. |
| Boiling point/boiling range : | not specified. |
| Flash point interval : | not relevant. |
| Vapour pressure (50°C) : | not relevant. |
| Density : | > 1 |
| Water solubility : | Soluble. |
| Melting point/melting range : | not specified. |
| Self-ignition temperature : | not specified. |
| Decomposition point/decomposition range : | not specified. |
| 9.2. Other information | |
| No data available | |



SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure between three minutes and one hour.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

2-butoxyethanol and its acetate are absorbed directly through the skin and have harmful effects on the blood.

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.



Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 - IMDG 2010 - ICAO/IATA 2012).

14.1. UN number

3265

14.2. UN proper shipping name

UN3265=CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

(phosphoric acid ...%)

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

III

14.5. Environmental hazards

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14.6. Special precautions for user

| ADR/RID | Class | Code | Pack gr. | Label | Ident. | LQ | Provis. | EQ | Cat. | Tunnel |
|---------|-------|---------|----------|----------|----------|---------|---------|------|------|--------|
| | 8 | C3 | III | 8 | 80 | 5 L | 274 | E1 | 3 | E |
| | | | | | | | | | | |
| IMDG | Class | 2°Label | Pack gr. | LQ | EMS | Provis. | EQ | | | |
| | 8 | - | III | 5 L | F-A,S-B | 223 274 | E1 | | | |
| | | | | | | | | | | |
| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo | note | EQ | |
| | 8 | - | III | 852 | 5 L | 856 | 60 L | A3 | E1 | |
| | | | | | | | | A803 | | |
| | 8 | - | III | Y841 | 1 L | - | - | A3 | E1 | |
| | | | | | | | | A803 | | |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

- The following regulations have been used:
- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 286/2011

- Container information:

- No data available.
- Particular provisions :

No data available.



15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :



| Corrosive | |
|-------------------------------|---|
| Contains : 015-011-00-6 | PHOSPHORIC ACID |
| Risk phrase : | |
| R 34 | Causes burns. |
| Safety phrase : | |
| S 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S 36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| S 45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| S 60 | This material and its container must be disposed of as hazardous waste. |
| Title for H, EUH and R | R indications mentioned in section 3 : |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| R 20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R 34 | Causes burns. |
| R 36/38 | Irritating to eyes and skin. |
| | |

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefahrdungsklasse (Water Hazard Class).

GHS05 : Corrosion