

**Oxylyte B**

Material number 237138

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**1. Product and company identification****Product identifier**

Trade name: Oxylyte B

**Relevant identified uses of the substance or mixture and uses advised against**General use: Electrolyte  
For industrial purposes only.**Details of the supplier of the safety data sheet**Company name: Hamilton Bonaduz AG  
Street/POB-No.: Via Crusch 8  
Postal Code, city: 7402 Bonaduz  
Switzerland  
WWW: www.hamiltoncompany.com  
Telephone: +41 58 610 10 10  
Department responsible for information:  
After-sales service  
E-mail: techsupport.pa.ch@hamilton.ch**Emergency phone number****GIZ-Nord, Göttingen, Germany,  
Telephone: +49 551-19240****2. Hazards identification****Emergency overview**Appearance: Physical state at 68 °F and 101.3 kPa: liquid  
Color: colorless, clear  
Odor: odorless  
Classification: Corrosive to Metals - Category 1; Skin Irritation - Category 2; Eye Irritation - Category 2A;

Hazard symbols:



Signal word:

**Warning**

Hazard statements:

May be corrosive to metals.  
Causes skin irritation.  
Causes serious eye irritation.

Precautionary statements:

Keep only in original container.  
Wash hands and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Absorb spillage to prevent material damage.

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**Regulatory status**

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Hazards not otherwise classified**

A corrosive effect cannot be ruled out because of the pH value.  
see section 11: Toxicological information

**3. Composition / Information on ingredients**

Chemical characterization: Aqueous solution

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 7664-38-2	Phosphoric acid	10 - 15 %	Corrosive to Metals - Category 1. Skin Corrosion - Category 1B.

**4. First aid measures**

In case of inhalation: Move victim to fresh air. In case of respiratory difficulties seek medical attention.

Following skin contact: After contact with skin, wash immediately with plenty of water. Remove contaminated clothing. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.

After swallowing: Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Do not try to neutralize. Immediately get medical attention.

**Most important symptoms/effects, acute and delayed**

Causes skin irritation. Causes serious eye irritation.

**Information to physician**

Treat symptomatically.

**5. Fire fighting measures**

Flash point/flash point range:

No data available

Auto-ignition temperature:

No data available

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

**Specific hazards arising from the chemical**

Fires in the immediate vicinity may cause the development of dangerous vapors.

Protective equipment and precautions for firefighters:

In case of surrounding fires: Wear self-contained breathing apparatus.

## 6. Accidental release measures

- Personal precautions: Provide adequate ventilation. Do not breathe vapor or spray.  
Avoid contact with the substance. Wear appropriate protective equipment.
- Environmental precautions: Do not allow to penetrate into soil, waterbodies or drains.
- Methods for clean-up: Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder.  
Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.
- Additional information: Render harmless: Dilute with plenty of water.

## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation. Wear appropriate protective equipment. Avoid contact with skin and eyes.

### Storage

- Requirements for storerooms and containers: Keep container tightly closed. Store at room temperature.
- Hints on joint storage: Do not store together with strong acids or alkalis.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7664-38-2	Phosphoric acid	USA: ACGIH: STEL	3 mg/m <sup>3</sup>
		USA: ACGIH: TWA	1 mg/m <sup>3</sup>
		USA: NIOSH: STEL	3 mg/m <sup>3</sup>
		USA: NIOSH: TWA	1 mg/m <sup>3</sup>
		USA: OSHA: TWA	1 mg/m <sup>3</sup>

### Engineering controls

When aerosols or vapors form: Withdraw by suction.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

- Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
- Skin protection: Wear suitable protective clothing.  
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Nitrile rubber (0,35 mm) or butyl caoutchouc (butyl rubber) (0,5 mm).  
Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
Use filter type E-(P2) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

## General hygiene considerations:

Avoid contact with skin and eyes. Remove contaminated clothing.  
Wash hands before breaks and after work.  
Have eye wash bottle or eye rinse ready at work place.

**Environmental exposure controls**

Refer to 6.: Section "Environmental precautions".

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Color: colorless, clear
Odor:	odorless
Odor threshold:	No data available
pH:	0.6
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 212 °F
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	1.1 g/mL
Water solubility:	completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

**10. Stability and reactivity**

Reactivity:	May be corrosive to metals.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Reacts with light metals. Formation of hydrogen.
Conditions to avoid:	Protect from excessive heat.
Incompatible materials:	Strong acids and alkalis, metals
Hazardous decomposition products:	In case of strong heating: phosphorus oxides
Thermal decomposition:	No data available

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**11. Toxicological information****Toxicological tests**

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.

Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

**Symptoms**

In case of ingestion:  
Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

**General remarks**

A corrosive effect cannot be ruled out because of the pH value.  
Information about Phosphoric acid, anhydrous:  
LD50 Rat, oral; 1530 mg/kg.

**12. Ecological information****Ecotoxicity**

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value. Forms corrosive mixtures with water even if diluted.

**Mobility in soil**

No data available

**Persistence and degradability**

Further details: No data available

**Additional ecological information**

General information: Do not allow to enter into ground-water, surface water or drains.

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**13. Disposal considerations****Product**

Recommendation: Dispose of waste according to applicable legislation.

**Package**

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

**14. Transport information****14.2 UN proper shipping name**

ADR/RID, IATA-DGR: UN 1805, PHOSPHORIC ACID, SOLUTION

IMDG: UN 1805, PHOSPHORIC ACID SOLUTION

**Transport hazard class(es)**

ADR/RID: Class 8, Code: C1

IMDG: Class 8, Subrisk -

IATA-DGR: Class 8

**Packing group**

ADR/RID, IMDG, IATA-DGR:

III

**Environmental hazards**

Marine pollutant: no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No data available

**USA: Department of Transportation (DOT)**

Identification number: UN1805  
Proper shipping name: UN 1805, PHOSPHORIC ACID, SOLUTION  
Hazard class or Division: 8  
Packing Group: III  
Labels: 8  
Special provisions: A7, IB3, N34, T4, TP1  
Packaging – Exceptions: 154  
Packaging – Non-bulk: 203  
Packaging – Bulk: 241  
Quantity limitations – Passenger aircraft / rail: 5 L  
Quantity limitations – Cargo only: 60 L  
Vessel stowage – Location: A  
Vessel stowage – Other: 53, 58



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**Sea transport (IMDG)**

UN number: UN 1805  
Proper shipping name: UN 1805, PHOSPHORIC ACID SOLUTION  
Class or division, Subsidiary risk: Class 8, Subrisk -  
Packing Group: III  
EmS: F-A, S-B  
Special provisions: 223  
Limited quantities: 5 L  
Excepted quantities: E1  
Package - Instructions: P001, LP01  
Package - Provisions: -  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1  
Stowage and handling: Category A. SG36 SG49  
Properties and observations: Miscible in water. Mildly corrosive to most metals.  
Marine pollutant: no  
Segregation group: 1

**Air transport (IATA)**

UN/ID number: UN 1805  
Proper shipping name: UN 1805, PHOSPHORIC ACID, SOLUTION  
Class or division, Subsidiary risk: Class 8  
Packing Group: III  
Hazard label: Corrosive  
Excepted Quantity Code: E1  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L  
Passenger and Cargo Aircraft: Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L  
Cargo Aircraft only: Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L  
Special provisions: A3 A803  
Emergency Response Guide-Code (ERG): 8L

**15. Regulatory information****National regulations - U.S. Federal Regulations**

Phosphoric acid: TSCA Inventory: listed  
TSCA HPVC: not listed  
Clean Water Act:  
Hazardous Substances: RQ 5000  
lbs.  
Other Environmental Laws:  
CERCLA: RQ 5000 lbs.  
NIOSH Recommendations:  
Occupational Health Guideline: 0506

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**National regulations - U.S. State Regulations**

Phosphoric acid: California Proposition 65 code: not listed  
Delaware Air Quality Management List:  
DRQ: 5000 - RQ State: Federal Regulations Apply  
Idaho Air Pollutant List:  
Title 585: AAC: 0.05 - EL: 0.067 - OEL: 1 - Title 586: -  
Massachusetts Haz. Substance codes: 2,4,5 F8 F9  
Minnesota Haz. Substance:  
Codes: AO - Ratings: -- Status: Title III. TRI.  
New York List of Hazardous Substances:  
RQ-Air: 5000 - RQ-Land: 100 - Note: No Note Associated with this chemical.  
Pennsylvania Haz. Substance code: E  
Washington Air Contaminant:  
TWA: 1 mg - STEL: 3 mg

**National regulations - Great Britain**

Hazchem-Code: 2R

**16. Other information**

Text for labeling:

Contains 10 - 15 % Phosphoric acid. Safety data sheet available on request.

Hazard rating systems:

NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor



HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X



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## Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
OEL: Occupational Exposure Limit Value  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EN: European Standard  
IATA: International Air Transport Association  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
LD50: Lethal dose 50%  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
TLV: Threshold Limit Value  
UN: United Nations  
vPvB: Very persistent and very bioaccumulative  
WEL: Workplace Exposure Limit

Reason of change: General revision  
Changes in section 1: Poisons information service (Denmark, France, Spain, Russia)  
Date of first version: 9/13/2010

**Department issuing data sheet**

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.