



Product of european origin conditioned by CLCM-LABS

SARL CLCM-labs City Sadikia hangar N°04,
Laghouat 03000 - Algérie
Fax : 029113704 / num : 0555655655
clcmprod@gmail.com



SAFETY DATA SHEET

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



Identification of the substance	Ortho-Phosphoric acid 85 %
Alternative Names	Phosphoric acid
Article number	CL9799.1K85
EC number	200-662-2
CAS number	7664-38-2
Relevant identified uses	Laboratory chemical Laboratory and analytical use
Uses advised against	Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Hazard class	Category	Hazard class and category	Hazard statement
Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
Acute toxicity (oral)	4	Acute Tox. 4	H302
Skin corrosion/irritation	1B	Skin Corr. 1B	H314
Serious eye damage/eye irritation	1	Eye Dam. 1	H314
The most important adverse physicochemical, human health and environmental effects		Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.	

Label element

Hazard pictograms	GHS05 GHS07	 
Signal Word	Danger	
Hazard statements	May be corrosive to metals (H290). Harmful if swallowed (H302). Causes severe skin burns and eye damage (H314).	
Precautionary statements - prevention	Do not breathe dusts or mists (P260). Wear eye protection/face protection (P280)	
Precautionary statements - response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (P303+P361+P353). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338). Absorb spillage to prevent material damage (P390).	
Precautionary statements - storage	Store in a well-ventilated place. Keep container tightly closed (P403+P233). Store in a well-ventilated place. Keep cool (P403+P235).	

Precautionary statements - disposal	Dispose of contents/container to industrial combustion plant (P501).
Hazardous ingredients for labelling	Ortho-Phosphoric acid 85 %
Other hazards	
Results of PBT and vPvB assessment	Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.
Endocrine disrupting properties	Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENT

Name of substance	Ortho-Phosphoric acid 85 %
Molecular formula	H_3PO_4
Molar mass	97,99 g/mol
CAS No	7664-38-2
EC No	231-633-2

SECTION 4: FIRST AID MEASURES

In case of eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.
In case of skin contact	After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.
If swallowed	Rinse mouth immediately and drink plenty of water. Rinse mouth with water (only if the person is conscious). Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).
If inhaled	Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Protection of first-aiders	Take off immediately all contaminated clothing. Self protection of the first aider.
Notes to physician	None
Most important symptoms and effects, both acute and delayed	<p>Following inhalation: Cough, pain, choking, and breathing difficulties.</p> <p>Following skin contact: Causes severe burns, Causes poorly healing wounds.</p> <p>After eye contact: Causes burns, Risk of serious damage to eyes, Risk of blindness.</p> <p>Following ingestion: Vomiting, Corrosion, Gastric perforation.</p>

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media	co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO_2).
Unsuitable extinguishing media	water jet.
Hazardous combustion products	In case of fire may be liberated: Phosphorus oxides ($PxOy$).
Advice for firefighters	In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

Special hazards arising from the substance or mixture Non-combustible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Increase ventilation to area or move container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Before entry, especially into confined areas, check atmosphere with an appropriate
For non-emergency personnel	Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.
Environmental precautions	Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

Methods and material for containment and cleaning up

Advice on how to contain a spill	Covering of drains.
Advice on how to clean up a spill	Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Other information relating to spills and releases	Place in appropriate containers for disposal. Ventilate affected area.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Handle and open container with care. Clear contaminated areas thoroughly.
Protect against external exposure, such as	humidity.
Advice on general occupational hygiene	Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a dry place Hygroscopic.
Incompatible substances or mixtures	Observe hints for combined storage.
Ventilation requirements	Use local and general ventilation.
Specific designs for storage rooms or vessels	Recommended storage temperature: 15 – 25 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Eye protection	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards.
Hand protection	Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact

	manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.
Skin protection	Chemical splash protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White)
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Advice on safe handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not breathe dust minimize dust generation and accumulation. Do not get in eyes, on skin, or on
Conditions for safe storage	Store in a cool, dry, well-ventilated area, out of direct sunlight. Keep quantities stored as small as possible. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized
Environmental exposure controls other protection measures	Keep away from drains, surface and ground water. Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form	viscous liquid
Colour	colourless
Odor	odourless.
pH	<0.5 (20 °C)
Melting point/freezing point	21 °C
Water Solubility	miscible in any proportion
Vapor Pressure	2 hPa at 20 °C.
Lower and upper explosion limit	2.6 vol% (LEL) - 12.8 vol% (UEL)
Kinematic viscosity	30.5 mm ² /s at 20 °C
Dynamic viscosity	52.16 cP at 20 °C.
Density	1.689 – 1.71 g/cm ³ at 20 °C
Refractive index	1.4320 (85% aq. soln) 25 °C
Solubility	Soluble in ethanol
Relative vapour density	3.4 (air = 1).
Oxidising properties	none
Flammability	Non-combustible.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Substance or mixture corrosive to metals
Chemical stability	The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Violent reaction with: Alkali (lye)

Dangerous/dangerous reactions with: Metals, Light metals (due to the release of hydrogen in an acid/alkaline medium), => Explosive properties.

Conditions to avoid

There are no specific conditions known which have to be avoided.

Incompatible materials

different metals.

Hazardous decomposition products

Hazardous combustion products: see section 5.

Release of flammable materials with

Metals, Light metals (due to the release of hydrogen in an acid/alkaline medium)

SECTION 11: TOXICOLOGICAL INFORMATION

Chemical Name	LD50 oral rat	LC50 Dermal rabbit
ortho-Phosphoric acid CAS (7664-38-2)	>300 – 2,000 mg/kg	2,740 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitisation	Shall not be classified as a respiratory or skin sensitiser.	
Germ cell mutagenicity	Shall not be classified as germ cell mutagenic	
Carcinogenicity	Shall not be classified as carcinogenic	
Reproductive toxicity	Shall not be classified as a reproductive toxicant.	
Specific target organ toxicity - single exposure	Shall not be classified as a specific target organ toxicant (single exposure).	
Specific target organ toxicity - repeated exposure	Shall not be classified as a specific target organ toxicant (repeated exposure).	
Aspiration hazard	Shall not be classified as presenting an aspiration hazard.	
Symptoms related to the physical, chemical and toxicological characteristics	<ul style="list-style-type: none">• If swallowed : If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).• If in eyes : causes burns, Causes serious eye damage, risk of blindness.• If inhaled : cough, pain, choking, and breathing difficulties.• If on skin : causes severe burns, causes poorly healing wounds.	
Endocrine disrupting properties	Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.	

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture

Substance	Value	Species	Endpoint	Exposure time
ortho-Phosphoric acid	>100 mg/l	aquatic invertebrates	EC50	48 h
ortho-Phosphoric acid	>100 mg/l	algae	ErC50	72 h

Aquatic toxicity (chronic)

Endpoint	Value	Species	Endpoint	Exposure time
ortho-Phosphoric acid	>1,000 mg/l	microorganisms	EC50	3 h

Mobility in soil

Data are not available.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.


Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.
Sewage disposal-relevant information	Do not empty into drains.
Waste treatment of containers/packagegings	Only packagegings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.
Relevant provisions relating to waste	Properties of waste which render it hazardous H8 ==> Corrosives.
Remarks	Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SECTION 14: TRANSPORT INFORMATION

UN number	UN RTDG	UN 1805
	IMDG-Code	UN 1805
	ICAO-TI	UN 1805
UN proper shipping name	UN RTDG	PHOSPHORIC ACID, SOLUTION
	IMDG-Code	PHOSPHORIC ACID, SOLUTION
	ICAO-TI	Phosphoric acid, solution
Transport hazard class(es)	UN RTDG	8
	IMDG-Code	8
	ICAO-TI	8
Packing group	UN RTDG	III
	IMDG-Code	III
	ICAO-TI	III
Maritime transport in bulk according to IMO instruments	The cargo is not intended to be carried in bulk.	
Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations.	
Transport in bulk according to IMO instruments	The cargo is not intended to be carried in bulk.	
Information for each of the UN Model Regulations		
Transport information	Proper shipping name :	PHOSPHORIC ACID, SOLUTION
National regulations	Particulars in the shipper's declaration:	UN1805, PHOSPHORIC ACID, SOLUTION, 8, III
Additional information(UN RTDG)	Marine pollutant	-
	Danger label(s)	8
		
	Special provisions (SP)	223
	Excepted quantities (EQ)	E1
	Limited quantities (LQ)	5 L
	EmS	F-A, S-B
	Stowage category	A
	Segregation group	1 - Acids

The information contained in this safety data sheet has been established on the basis of our knowledge at the date of publication of this document. This information is given only as indicative in order to allow handling, manufacturing, storage, transport, distribution, provision, use and disposal under satisfactory conditions of security, and cannot therefore be interpreted as a guarantee or considered as quality specifications. This information also concerns only the product, namely designated and, unless specifically stated otherwise, may not be applicable when mixed said product with other substances or usable for any manufacturing process. He returns solely for the user to determine the appropriation of materials. The information provided is not intended as a guarantee of the characteristics

SARL CLCM-labs City Sadikia hangar N°04, Laghouat 03000 - Algérie, Fax : 029113704 / num : 0555655655.