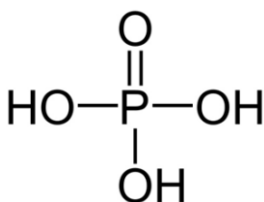


**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
Trade name : ORTHOPHOSPHORIC ACID 75% EXTRA PURE :  
EC Index-No. 015-011-00-6  
EC-No. : 231-633-2  
CAS-No. : 7664-38-2  
Product code : 0231B  
Type of product Formula : Solution, Acids  
Chemical structure : H<sub>3</sub>PO<sub>4</sub> :



Synonyms : Phosphoric acid, o-Phosphoric acid, OPA

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

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial : Laboratory  
Use of the substance/mixture chemicals  
Pharmaceuticals

**1.2.2. Uses advised against**

No additional information

**1.3. Details of the supplier of the safety data sheet**

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1 H314

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Causes severe skin burns and eye damage.

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



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	GHS05
Signal word (CLP) Contains	: Danger
Hazard statements (CLP)	: ORTHOPHOSPHORIC ACID AR
Precautionary statements (CLP)	: H314 - Causes severe skin burns and eye damage. : P280 - Wear eye protection, eye protection, face protection, face protection, hearing protection, protective clothing, protective clothing, eye protection, face protection, protective gloves. 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 doctor.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ORTHOPHOSPHORIC ACID AR	CAS-No.: 7664-38-2 EC-No.: 231-633-2 EC Index-No.: 015-011-00-6	73 – 78	Skin Corr. 1B, H314 Eye Dam. 1, H318
WATER DISTILLED	CAS-No.: 7732-18-5	22 – 27	Not classified

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire :Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting :Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures :Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust, fume, gas, mist, spray, vapours.

#### 6.1.2. For emergency responders

Protective equipment :Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up :Take up liquid spill into absorbent material.  
Other information :Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling :Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust, fume, gas, mist, spray, vapours. Wear personal protective equipment.  
Hygiene measures :Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions :Store locked up. Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

ORTHOPHOSPHORIC ACID 75% EXTRA PURE (7664-38-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Orthophosphoric acid
IOEL TWA	1 mg/m <sup>3</sup>
IOEL STEL	2 mg/m <sup>3</sup>

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<b>ORTHOPHOSPHORIC ACID 75% EXTRA PURE (7664-38-2)</b>	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>	
Local name	Orthophosphorsäure
AGW (OEL TWA) [1]	2 mg/m <sup>3</sup> (E)
Peak exposure limitation factor	2(I)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); AGS - Ausschuss für Gefahrstoffe; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
<b>Portugal - Occupational Exposure Limits</b>	
Local name	Ácido fosfórico
OEL TWA	1 mg/m <sup>3</sup>
OEL STEL	3 mg/m <sup>3</sup>
Regulatory reference	Norma Portuguesa NP 1796:2014
<b>Spain - Occupational Exposure Limits</b>	
Local name	Ácido ortofosfórico
VLA-ED (OEL TWA) [1]	1 mg/m <sup>3</sup>
VLA-EC (OEL STEL)	2 mg/m <sup>3</sup>
Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: <a href="http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas">http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas</a> Base de datos de productos fitosanitarios <a href="http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf">http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf</a> ).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Orthophosphoric acid
WEL TWA (OEL TWA) [1]	1 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	2 mg/m <sup>3</sup>
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Phosphoric acid
ACGIH OEL TWA	1 mg/m <sup>3</sup>
ACGIH OEL STEL	3 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2021

### 8.1.2. Recommended monitoring procedures

No additional information available

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1. **Air contaminants formed** No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 1. Personal protection equipment

#### Personal protective equipment symbol(s):



### 1. Eye and face protection

#### Eye protection:

Safety glasses

### 1. Skin protection

No additional information available

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

Wear appropriate mask

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state Appearance	:No information available.
Molecular mass Colour Odour	:No data available
Odour threshold pH	:< 0.5 100 g/l at 20°C :No data available
Relative evaporation rate (butylacetate=1)	:Not applicable
Melting point	:Not applicable
Freezing point	:-17 °C
Boiling point	:135 °C
Flash point	:No data available
Auto-ignition temperature	:No data available
Decomposition temperature	:No data available
Flammability (solid, gas)	:Not applicable
Vapour pressure	:6.5 hPa at 25°C
Relative vapour density at 20 °C	:3.38 (Air = 1)
Relative density	≈ 1.58 at 25°C
: Liquid	
:Clear. Viscous liquid.	
:98 g/mol	
:Clear colourless.	

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Solubility	:Water: Miscible :No
Partition coefficient n-octanol/water (Log Pow)	data available :14.7
Viscosity, kinematic	mm <sup>2</sup> /s at 25°C :No
Viscosity, dynamic	data available :No
Explosive properties	data available :No
Oxidising properties	data available :No
Explosive limits	data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: N o t	c l a s s i f i e d
Acute toxicity (dermal) Acute	: N o t	c l a s s i f i e d
toxicity (inhalation) Skin	: N o t	c l a s s i f i e d
corrosion/irritation	:Causes severe skin burns.	
	pH: < 0.5 100 g/l at 20°C	
Serious eye damage/irritation	:Assumed to cause serious eye damage	
	pH: < 0.5 100 g/l at 20°C	
Respiratory or skin sensitisation	:Not classified	
Germ cell mutagenicity	:Not classified	
Carcinogenicity	:Not classified	
Reproductive toxicity STOT-	:Not classified	
single exposure STOT-	:Not classified	
repeated exposure Aspiration	:Not classified	
hazard	:Not classified	

### ORTHOPHOSPHORIC ACID 75% EXTRA PURE (7664-38-2)

Viscosity, kinematic	14.7 mm <sup>2</sup> /s at 25°C
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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general :Before neutralisation, the product may represent a danger to aquatic organisms.  
Hazardous to the aquatic environment, short-term (acute) :Not classified  
Hazardous to the aquatic environment, long-term (chronic) :Not classified

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods :Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

#### 14.1. UN number

UN-No. (ADR) :UN 1805  
UN-No. (IMDG) :UN 1805  
UN-No. (IATA) :UN 1805  
UN-No. (ADN) :UN 1805  
UN-No. (RID) :UN 1805

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) :PHOSPHORIC ACID, SOLUTION  
Proper Shipping Name (IMDG) :PHOSPHORIC ACID SOLUTION  
Proper Shipping Name (IATA) :Phosphoric acid, solution  
Proper Shipping Name (ADN) :PHOSPHORIC ACID, SOLUTION  
Proper Shipping Name (RID) :PHOSPHORIC ACID, SOLUTION  
Transport document description (ADR) :UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III, (E)  
Transport document description (IMDG) :UN 1805 PHOSPHORIC ACID SOLUTION, 8, III :UN  
Transport document description (IATA) 1805 Phosphoric acid, solution, 8, III  
Transport document description (ADN) :UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III :UN  
Transport document description (RID) 1805 PHOSPHORIC ACID, SOLUTION, 8, III

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR) : 8

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Danger labels (ADR) :8



### IMDG

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) :8



### IATA

Transport hazard class(es) (IATA) : 8

Danger labels (IATA) : 8



### ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) :8



### RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) :8



## 14.4. Packing

### group

Packing group (ADR) : III :

Packing group (IMDG) III :

Packing group (IATA) III :

Packing group (ADN) III :

Packing group (RID) III

## 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information :No supplementary information available




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### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)	:C1
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	:P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	:MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	:TP1
Tank code (ADR)	: L4BN
Tank special provisions (ADR)	:TU42
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Hazard identification number (Kemler No.)	:80
Orange plates	: 
Tunnel restriction code (ADR)	:E
EAC code	:2R

#### Transport by sea

Special provisions (IMDG)	: 223
Limited quantities (IMDG)	:5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	:P001, LP01
IBC packing instructions (IMDG)	:IBC03
Tank instructions (IMDG)	:T4
Tank special provisions (IMDG)	:TP1
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
Segregation (IMDG)	:SGG1, SG36, SG49
Properties and observations (IMDG)	:Miscible in water. Mildly corrosive to most metals.

#### Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y841 :1L
PCA limited quantity max net quantity (IATA)	: 852
PCA packing instructions (IATA)	: 5L
PCA max net quantity (IATA)	: 856
CAO packing instructions (IATA)	: 60L :A3,
CAO max net quantity (IATA)	A803 : 8L
Special provisions (IATA)	
ERG code (IATA)	

#### Inland waterway transport

Classification code (ADN)	:C1
Limited quantities (ADN)	:5 L
Excepted quantities (ADN)	: E1 :PP,
Equipment required (ADN)	EP : 0
Number of blue cones/lights (ADN)	

#### Rail transport

Classification code (RID)	:C1
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	:P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:MP19

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Portable tank and bulk container instructions (RID) :T4  
Portable tank and bulk container special provisions (RID) :TP1  
Tank codes for RID tanks (RID) : L4BN  
Special provisions for RID tanks (RID) :TU42  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Colis express (express parcels) (RID) : CE8  
Hazard identification number (RID) : 80

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(b)	ORTHOPHOSPHORIC ACID 75% EXTRA PURE ; ORTHOPHOSPHORIC ACID AR

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 1. National regulations

##### Germany

Employment restrictions

:Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK)

:WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

:Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen

:None of the components are listed :None of the components are listed :None of the components are listed

SZW-lijst van mutagene stoffen NIET-

limitatieve lijst van voor de voortplanting

giftige stoffen – Borstvoeding

:None of the components are listed

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen – Vruchtbaarheid NIET-

:None of the components are listed

limitatieve lijst van voor de voortplanting

giftige stoffen – Ontwikkeling **Denmark**

Danish National Regulations

:Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### 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

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Abbreviations and acronyms	
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.