


SAFETY DATA SHEET	
Phosphoric acid	1 of 9

Complying with 1907/2006/EEC Regulation of 18 December 2006

Section 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

REACH Product name: Phosphoric Acid 75%, 80% and 85%

Trade names: Phosphoric Acid 75%, 80% and 85%; Multy-P

Synonyms: Orthophosphoric acid; Phosphoric acid (aqueous); White phosphoric acid

Chemical formula: H₃PO₄

Fertilizer formula: 0-61-0

Product type: Liquid

Cas number: 7664-38-2

Use of the substance/preparation: Agriculture- component of liquid fertilizers, pH adjuster, cleaner of irrigation system.

Food processing - acidifier, sequestrant, synergist for antioxidant.

Pharmacopoeia- processed aid (solvent), dental cement.

Industries- manufacture of inorganic phosphates, fertilizers, detergents, acid catalyst, metal treatment, water treatment.

Company/undertaking identification

Supplier/Manufacturer: Haifa Chemicals Ltd.

P.O.B 10809, Haifa Bay 26120, Israel

Tel: +972-4-8469961

Fax: +972-4-8469955

E-mail address of person responsible for this SDS: industrial@haifachem.com

Emergency telephone number: +972-4-8469603/4


(with hours of operation)

Section 2. HAZARDS IDENTIFICATION

Classification: C: R34

Most important hazards: Causes burns.

See section 11 for more detailed information on health effects and symptoms.

SAFETY DATA SHEET	
Phosphoric acid	2 of 9

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation:

Ingredient name	CAS number	%	EC number	Classification
Phosphoric acid	7664-38-2	75-85%	231-633-2	C: R34
Water	7732-18-5	Balance	231-791-2	-

See section 16 for the full text of the R-phrases declared above

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8.

Section 4. FIRST AID MEASURES

Eyes contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation develops or persists or if visual changes occur.


Skin contact: In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Cold water may be used. Get medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation: If respiratory irritation or distress occurs, remove victim to fresh air. Get medical attention if respiratory irritation or distress continues.

Ingestion: If victim conscious and alert, give 2-3 glasses of water to drink **DO NOT INDUCE VOMITING**. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Notes to physician: No specific antidote, medical staff contacts Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

See section 11 for more detailed information on health effects and symptoms.

SAFETY DATA SHEET	
Phosphoric acid	3 of 9

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable: Use an extinguishing agent suitable for surrounding fire.

Not suitable: N/A

Special exposure hazards: Non-combustible.

Hazardous thermal decomposition products: Oxides of phosphorous.

Special protective equipment for fire fighters: Fire Fighting should wear positive self-contained breathing apparatus (SCBA) and full turnout gear.

Remark: Move containers from fire area if possible to do so without risk.

Section 6: Accidental Release Measures

Personal precautions: Wear protective clothing. Ventilate area of spill. Stop the leakage if you can do so without risk.

Environmental precautions: Do not let this chemical enter the environment.

Methods for cleaning up

Small spill: Absorb spill with inert material (e.g. vermiculite, sand or earth), and place in suitable container.

Large spill: As for small spill

Personal Protection in Case of Large Spill: Safety glasses. Full suit. Suitable respirator. Boots. Gloves. A self- contained breathing apparatus should be used to avoid inhalation of the product.

Section 7: Handling and Storage

Handling: Do not breath vapour. Avoid contact with skin and eyes. Wash thoroughly after handling. Do not permit eating/drinking/smoking near the material.

Storage: Keep containers tightly closed, in a dry, cool and well ventilated place.


Protect from humidity.

Do not store together with strong bases, metals and strong oxidizing agents.

Do not store in metal containers.

Keep away from heat.

Specific use(s): N/A

SAFETY DATA SHEET	
Phosphoric acid	4 of 9

Section 8: Exposure Control / Personal Protection

Exposure limit values: Phosphoric acid

ACGIH-TLV 1 mg/m³ (TWA), 3 mg/m³ (STEL)
 OSHA-PEL 1 mg/m³ (TWA)
 GER-MAK 2 mg/m³ (TWA), inhalable
 NIOSH-REL 1 mg/m³ (TWA), 3 mg/m³ (STEL)

Exposure controls

Occupational exposure controls: Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Respiratory protection: Suitable respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hand protection: Wear protective gloves to prevent skin exposure.

Eye protection: Wear protective safety glasses.

Skin protection: Wear appropriate long-sleeved clothing to minimize skin contact.

Hygiene measures: Keep away from foodstuffs and beverages. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work; apply skin cream. During use, provide suitable ventilation.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Exposure Guidelines: Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements.

Section 9: Physical and Chemical Properties

General information:

Physical state: Liquid

Colour: Colorless


Odour: Odourless

Odour threshold: Odourless

Molecular weight: 98.0 g/mol

pH: <1 (Conc.(%w/w): 1) [Acidic]

Boiling point/boiling range: 135-158°C (275-316°F)

SAFETY DATA SHEET	
Phosphoric acid	5 of 9

Flash point: Not applicable

Flammability: Not flammable

Explosive properties: Not explosive

Oxidizing properties: Not oxidizer

Vapor pressure: 0.75 kPa (5.65 mm Hg) at 20°C (68°F)- 75% Phosphoric acid
0.29 kPa (2.16 mm Hg) at 20°C (68°F)- 85% Phosphoric acid

Relative Density: 1.573 g/ml at 25°C (77°F)- 75% Phosphoric acid
1.628 g/ml at 25°C (77°F)- 80% Phosphoric acid
1.685 g/ml at 25°C (77°F)- 85% Phosphoric acid

Water solubility: Miscible

Octanol/Water partition coefficient: Miscible in water

Viscosity: Viscous liquid

Vapor density: N/A

Vapor composition: Pure water vapor up to about 300°C (572°F)

Vapors of water and phosphorous oxide at >300°C (572°F)

Evaporation rate (butyl acetate=1): <1; compared with butyl acetate

VOC: Not an organic compounds

Apparent (Bulk) Density: N/A

Decomposition range: N/A

Other information:

Melting point/melting range: -20°C (-4°F)- 75% Phosphoric acid
0°C (32°F)- 80% Phosphoric acid
21°C (70°F)- 85% Phosphoric acid

Section 10: Stability and Reactivity

Stability: The product is stable under normal handling and storage conditions described in Section 7.

Conditions to avoid: Extreme humidity, excess heat.

Materials to avoid: Metals, strong oxidizing agents and strong bases. Do not mix with solutions containing bleach or ammonia.

Hazardous Decomposition products: Under fire- Oxides of phosphorous at >300°C (572°F). Contact with metals may evolve flammable hydrogen gas.

Hazard polymerization: Will not occur.

Section 11: Toxicological Information

Potential acute health effects

SAFETY DATA SHEET

Phosphoric acid

6 of 9

Inhalation: Causes burns to the respiratory tract. Symptoms may include irritation to the nose, throat and upper respiratory tract.

Ingestion: Causes irritation to the gastrointestinal tract. Symptoms may include severe burns of the mouth, throat and stomach. Ingestion of large quantities may cause gastrointestinal irritation, vomiting and diarrhea.

Skin contact: Causes burns to skin. May cause redness, pain and severe skin burns.

Eyes contact: Causes burns to eyes. Symptoms may include redness, pain, blurred vision, eye burns and permanent eye damage.

Acute toxicity:

Product/ingredient name	Test/Type	Species	Dose	Exposure
Phosphoric acid	LD50, oral	Rat	1250 mg/kg	-
	LD50, oral	Mouse	1250 mg/kg	-

Potential Chronic Health Effects

Reproductive toxicity: Not applicable.

Carcinogenicity: This product does not contain any substances that are considered by IARC, NTP, OSHA, EU or ACGIH to be "probable" or "suspected" human carcinogens.

Mutagenicity: Not applicable.

Teratogenicity: Not applicable.

Over exposure signs/symptoms

Inhalation: Inhalation of product may aggravate existing chronic respiratory disease.

Target organs: No specific data

Special Remarks on Toxicity to animals: Severe toxicity for humans or animals.

Section 12: Ecological Information**Ecotoxicity**


Aquatic ecotoxicity: N/A

Mobility: Miscible in water.

Persistence: Not applicable, since inorganic substance.

Degradability: Not applicable.

Bioaccumulative potential: N/A

SAFETY DATA SHEET	
Phosphoric acid	7 of 9

Result of PBT assessment: N/A

Other adverse effects:

Substances which have an unfavorable influence on the oxygen balance and can be measured using parameters such as BOD, COD, etc.: Absent.

Substances, which contribute to eutrophication: Phosphates, 54.3-61.6% as P₂O₅

Remarks: N/A





Section 13: Disposal Considerations

Methods of disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Hazardous waste: N/A


Section 14: Transport Information

International transport regulations

Regulatory Information	UN number	Proper shipping name	classes	Packing group	Label	Additional information	Marine pollutant
ADR/RID Class	1805	PHOSPHORIC ACID, SOLUTION	8	III		EAC: 2R	-
ADNR Class	1805	PHOSPHORIC ACID, SOLUTION	8	III		-	-
IMDG class	1805	PHOSPHORIC ACID, SOLUTION	8	III		EMS: F-A, S-B	-
IATA class	1805	PHOSPHORIC ACID, SOLUTION	8	III		-	-

National Fire Protection Association Hazard Ratings- NFPA (R):

- 3** Health Hazard Rating - Severe
- 0** Flammability Rating - Minimal
- 0** Instability Rating - Minimal

SAFETY DATA SHEET	
Phosphoric acid	8 of 9

Section 15: Regulatory Information

EC regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Labelling in accordance with EC directive: C- Corrosive



Risk phrases: R34: Causes burns.

Safety phrases:

S01/02: Keep locked up and out of reach of children.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.

S45: In case of accident or if you feel unwell, seek medical advice immediately.

National Paint & Coating Hazardous Materials Identification System – HMIS (R):

3 Health Hazard Rating - Severe

0 Flammability Rating - Minimal

0 Instability Rating - Minimal

Section 16: Other Information

Full text of R-phrases referred to in sections 2 and 3 : R34: Causes burns.

Full text of classifications referred to in sections 2 and 3: C: Corrosive.


Training advice: N/A

Recommended restriction: N/A

Key Legend Information:

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

SAFETY DATA SHEET	
Phosphoric acid	9 of 9

NTP- National Toxicology program

IARC- International Agency for Research on Cancer

ND- Not Determined

N/A- Not available

R-phrases- Risk phrases

S-phrases- Safety phrases

Date of printing: 25th June 2009

Version no. 1

According to Regulation (EC) No. 1907/2006 (REACH), Annex II and Commission Directive 2001/59/EC.

To the best of our knowledge the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.