

PHOSPHORIC ACID

1008

October 2000

CAS No: 7664-38-2
RTECS No: TB6300000
UN No: 1805
EC No: 015-011-00-6

Orthophosphoric acid
 H_3O_4P / H_3PO_4
Molecular mass: 98.0

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire. See Notes.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		PREVENT GENERATION OF MISTS!	
Inhalation	Burning sensation. Cough. Shortness of breath. Sore throat.	Ventilation.	Fresh air, rest. Refer for medical attention.
Skin	Redness. Pain. Skin burns. Blisters.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes	Pain. Redness. Severe deep burns.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Burning sensation. Shock or collapse.	Do not eat, drink, or smoke during work.	Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL

Sweep spilled substance into covered containers. Carefully collect remainder, then remove to safe place. Chemical protection suit including self-contained breathing apparatus.

PACKAGING & LABELLING

C Symbol
R: 34
S: (1/2-)26-45
Note: B
UN Hazard Class: 8
UN Pack Group: III

Do not transport with food and feedstuffs.

EMERGENCY RESPONSE

Transport Emergency Card: TEC (R)-80S1805
NFPA Code: H 2; F 0; R 0

SAFE STORAGE

Separated from food and feedstuffs. See Chemical Dangers. Well closed. Dry.

IPCS

International
Programme on
Chemical Safety



Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission ©
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SEE IMPORTANT INFORMATION ON THE BACK.

IMPORTANT DATA

Physical State; Appearance

HYGROSCOPIC, COLOURLESS CRYSTALS.

Chemical dangers

The substance violently polymerizes under the influence of azo compounds and epoxides. On combustion, forms toxic fumes (phosphorous oxides). The substance decomposes on contact with alcohols, aldehydes, cyanides, ketones, phenols, esters, sulfides, halogenated organics producing toxic fumes. Attacks many metals forming flammable/explosive gas (hydrogen - see ICSC 0001). The substance is a medium strong acid. Reacts violently with bases.

Occupational exposure limits

TLV: 1 mg/m³ as TWA, 3 mg/m³ as STEL; (ACGIH 2004).
MAK: (Inhalable fraction) 2 mg/m³; Peak limitation category: I(2);
Pregnancy risk group: C; (DFG 2005). 1 mg/m³ (8h), 2 mg/m³ (short term) EC OELs

Routes of exposure

The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

Inhalation risk

A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20/C.

Effects of short-term exposure

The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion.

PHYSICAL PROPERTIES

Decomposes below boiling point at 213/C
Melting point: 42/C
Density: 1.9 g/cm³

Solubility in water: very good
Vapour pressure, Pa at 20/C: 4

ENVIRONMENTAL DATA

NOTES

NEVER pour water into this substance; when dissolving or diluting always add it slowly to the water.
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information