ORTHO-PHOSPHORIC ACID

SECTION 1: PRODUCT IDENTIFICATION

Product Name: ORTHO -PHOSPHORIC ACID
Product Code: 876
CAS#: 7664-38-2
CI#: Not available
Synonym: Phosphoric acid, Orthophosphoric acid, o-Phosphoric acid, Orthophosphoric acid
Chemical Name: Not available
Chemical Formula: H_3PO_4
Formula Weight: 282.46

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:
PHOSPHORIC ACID
Toxicological Data on Ingredients:
H290 May be corrosive to metals
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation
H319 Causes serious eye irritation

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture:
Classification according to Regulation (EC) No 1272/2008
Corrosive to Metals (Category 1), H290
Acute toxicity, Oral (Category 4), H302
Skin corrosion (Sub-category 1B), H314
Serious eye damage (Category 1), H318
Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 4: FIRST AID MEASURES

Description of first aid measures: General advice first aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance
If inhaled If breathed in: After inhalation: fresh air. Call in physician
In case of skin contact: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
In case of eye contact: After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.Remove contact lenses.
If swallowed: After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Most important symptoms and effects, both acute and delay: No data available
Indication of any immediate medical attention and special treatment needed: Not available

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special hazards arising from the substance or mixture: Oxides of phosphorus Not combustible Ambient fire may liberate hazardous vapours
Advice for firefighters: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert.
Environmental precautions: Do not let product enter drains
Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed
Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place.
Specific end use(s) A part from the uses: No other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection Acid-resistant protective clothing.
Respiratory protection: Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2.The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented
Control of environmental exposure: Do not let product enter drains

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance Form	**:** Crystalline
Odour	**:** Odorless
Taste	**:** Not available
Molecular Weight	**:** Not available
Colour	**:** White
pH	**:** Not available

Boiling Point	: 158 °C
Melting Point	: 41 - 44 °C
Critical Temperature	: Not available
Relative Density	: 1,84 at 38 °C
Vapor Pressure	: 0, 03 hPa at 20 °C
Vapor Density	: Not available
Volatility	: Not Available
Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
Ionicity (in Water)	: Not Available
Dispersion Properties	: Not Available
Water Solubility	: 850 g/l at 20 °C
Partition coefficient	: Not Available
Auto-ignition temperature	: Not Available

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity: Not available
Chemical stability: The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions: Violent reactions possible with: Bases metallic oxides Sodium borohydride
Risk of ignition or formation of inflammable gases or vapours with: Metals metal alloys
Possible formation of: Hydrogen
Risk of explosion with: Nitro methane
Conditions to avoid: Air Sensitive
Incompatible materials: Aluminum, iron/iron-containing compounds, Mild steelGives off hydrogen by reaction with metals.Metals
Hazardous decomposition products Other decomposition products: Not available

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects:
Acute toxicity
LD50 Oral - Rat - 1.250 mg/kg
Remarks: Lungs, Thorax, or Respiration:Acute pulmonary edema.Liver:Changes in liver weight.(RTECS)
Inhalation: Not available
Dermal: Not available
Skin corrosion/irritation:
Skin - Rabbit
Result: Causes burns. - 24 h
Remarks: (ECHA)
(Regulation (EC) No 1272/2008, Annex VI)
Serious eye damage/eye irritation: Causes serious eye damage
Respiratory or skin sensitization: Not available
Carcinogenicity: Not available
Reproductive toxicity: Not available
Specific target organ toxicity: Not available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: toxicity to daphnia and other aquatic invertebrates: Static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h
Toxicity to algae: static test ErC50 - Desmodesmus subspicatus (green algae) - > 100mg/l - 72 h
Toxicity to bacteria: static test EC50 - activated sludge - > 1.000 mg/l - 3 h

Persistence and degradability: The methods for determining the biological degradability are not applicable to inorganic substances
Bioaccumulative potential: Not available
Mobility in soil: Not available
Results of PBT and vPvB assessment PBT/vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects: May be harmful to aquatic organisms due to the shift of the pH

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging Dispose of as unused product

SECTION 14: TRANSPORT INFORMATION

UN number
ADR/RID: 3453 IMDG: 3453 IATA: 3453

UN proper shipping name
ADR/RID: PHOSPHORIC ACID, SOLID IMDG: PHOSPHORIC ACID, SOLID IATA: Phosphoric acid, solid

Transport hazard class(es)
ADR/RID: 8 IMDG: 8 IATA: 8

Packaging group
ADR/RID: III IMDG: III IATA: III

Environmental hazards
ADR/RID: No IMDG Marine pollutant: No IATA: No

Special precautions for user
No data available

SECTION 15: OTHER REGULATORY INFORMATION

Regulatory information This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006
Safety, health and environmental regulations/legislation specific for the substance or mixture no data available
Chemical Safety Assessment For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References:
Full text of H-Statements referred to under sections 2 and 3.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
Other Special Considerations: Not available

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user‘s obligation to investigate and determine the suitability of the information for their particular purpose.