PHOSPHORIC ACID 1M MSDS

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

PRODUCT NAME
PHOSPHORIC ACID 1M

SUPPLIER
Reagent Chemical Services
18 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL
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F: 01928 716425
E: info@reagent.co.uk

PRODUCT NO.
2438

APPLICATION
Analytical standard

2 HAZARDS IDENTIFICATION

Irritating to eyes and skin.
CLASSIFICATION (1999/45)
Xi;R36/38.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS-No.</th>
<th>Content</th>
<th>Classification (67/548)</th>
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</thead>
<tbody>
<tr>
<td>PHOSPHORIC ACID ...%</td>
<td>231-633-2</td>
<td>7664-38-2</td>
<td>10-30%</td>
<td>C;R34</td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

INHALATION
Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. In case of severe exposure or if any discomfort continues get medical attention.

INGESTION
Do not induce vomiting. Immediately rinse mouth and drink plenty of water. Get medical attention immediately!

SKIN CONTACT
Immediately remove contaminated clothing and wash before re-use. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

EYE CONTACT
Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids. If possible remove any contact lenses and continue to wash. Get medical attention.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA
The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

SPECIFIC HAZARDS
In case of fire, toxic and corrosive gases of phosphorus oxides may be formed.

PROTECTIVE MEASURES IN FIRE
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Wear protective clothing as described in Section 8 of this safety data sheet.

SPILL CLEAN UP METHODS
Small Spillages: Absorb with inert, non-combustible material. Large Spillages: Dam and absorb spillages with sand, earth or other inert, non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Wash thoroughly after dealing with a spillage.
PHOSPHORIC ACID 1M

7 HANDLING AND STORAGE

USAGE PRECAUTIONS
Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS
Store in tightly closed original container in a dry and cool place.

STORAGE CLASS
Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Name</th>
<th>Std</th>
<th>TWA - 8 hrs</th>
<th>STEL - 15 min</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOSPHORIC ACID</td>
<td>OES</td>
<td>1 mg/m3</td>
<td>2 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERING MEASURES
Provide adequate ventilation, including appropriate local extraction, to ensure workplace exposure limits are not exceeded.

RESPIRATORY EQUIPMENT
Wear suitable respiratory protection if vapours or mists are generated.

HAND PROTECTION
Use protective gloves. Rubber or plastic. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION
Wear approved tight fitting safety glasses. Use face shield in case of splash risk.

OTHER PROTECTION
Wear suitable protective clothing as protection against splashing or contamination. Provide eyewash station and safety shower.

HYGIENE MEASURES
Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE  Liquid
COLOUR        Colourless
ODOUR         Odourless
SOLUBILITY    Miscible with water
pH-VALUE, CONC. SOLUTION  <1

10 STABILITY AND REACTIVITY

STABILITY
Stable under normal temperature conditions.

MATERIALS TO AVOID

HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of Phosphorus.

11 TOXICOLOGICAL INFORMATION

INHALATION
Irritating to respiratory system.

INGESTION
Irritation of the mouth, the oesophagus and the gastrointestinal tract.

SKIN CONTACT
Irritating to skin.

EYE CONTACT
Irritating to eyes.

12 ECOLOGICAL INFORMATION
PHOSPHORIC ACID 1M

ECOTOXICITY
The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

UK ROAD CLASS 8
PROPER SHIPPING NAME PHOSPHORIC ACID, SOLUTION
UN NO. ROAD 1805
UK ROAD PACK GR. III
ADR CLASS NO. 8
ADR CLASS Class 8: Corrosive substances.
ADR PACK GROUP III
HAZARD No. (ADR) 80
ADR LABEL NO. 8
HAZCHEM CODE 2R
CEFIC TEC(R) NO. 80GC1-II+III, 80GC2-II+III
RID CLASS NO. 8
RID PACK GROUP III
UN NO. SEA 1805
IMDG CLASS 8
IMDG PACK GR. III
EMS F-A, S-B
MFAG See Guide
MARINE POLLUTANT No.
UN NO. AIR 1805
AIR CLASS 8
AIR PACK GR. III

15 REGULATORY INFORMATION

LABELLING
Irritant
RISK PHRASES
R36/38 Irritating to eyes and skin.
SAFETY PHRASES
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste.

STATUTORY INSTRUMENTS
Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.
APPROVED CODE OF PRACTICE
Classification and Labelling of Substances and Preparations Dangerous for Supply. COSHH essentials: Easy steps to control chemicals.
Control of Substances Hazardous to Health Regulations.
GUIDANCE NOTES
Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.
NATIONAL REGULATIONS
Control of Substances Hazardous to Health Regulations 2002 (as amended)

16 OTHER INFORMATION

GENERAL INFORMATION
Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS).
REVISION COMMENTS
This is first issue.
Causes burns. R34