

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product name:** PHOSPHORIC ACID 75%**REACH registered number(s):** 01-2119485924-24-XXXX**CAS number:** 7664-38-2**EINECS number:** 231-633-2**Product code:** PHOSA75**Synonyms:** ORTHOPHOSPHORIC ACID**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of substance / mixture:** Beverage Processing Aids and Other Usages**1.3. Details of the supplier of the safety data sheet****Company name:** Murphy and Son Ltd

Murphy & Son Ltd

Alpine St, Old Basford

Nottingham

NG6 0HQ

United Kingdom

Tel: (+44) 115 978 5494**Email:** technical@murphyandson.co.uk**1.4. Emergency telephone number****Emergency tel:** (+44) 115 978 5494

(office hours only)

Section 2: Hazards identification**2.1. Classification of the substance or mixture****Classification under CLP:** Acute Tox. 4: H302; Met. Corr. 1: H290; Skin Corr. 1B: H314; Eye Dam. 1: H318**Most important adverse effects:** Causes severe skin burns and eye damage. Harmful if swallowed. May be corrosive to metals.**2.2. Label elements****Label elements:****Hazard statements:** * H314: Causes severe skin burns and eye damage.

H302: Harmful if swallowed.

H290: May be corrosive to metals.

Hazard pictograms: * GHS05: Corrosion

GHS07: Exclamation mark

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Signal words: Danger

Precautionary statements: * P234: Keep only in original packaging.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P301+P312: IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
P501: Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ORTHOPHOSPHORIC ACID

| EINECS | CAS | PBT / WEL | CLP Classification | Percent |
|-----------|-----------|-----------|---------------------|---------|
| 231-633-2 | 7664-38-2 | - | Skin Corr. 1B: H314 | 70-90% |

Non-classified ingredients:

WATER

| EINECS | CAS | PBT / WEL | CLP Classification | Percent |
|--------|-----------|-----------|--------------------|---------|
| - | 7732-18-5 | - | - | 10-30% |

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination. Remove contact lenses, if present and easy to do. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary.

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Never give anything by mouth to an unconscious person. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Transfer to hospital as soon as possible. Obtain medical attention if breathing difficulty and / or other complaints appear.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises. Show this safety data sheet to the doctor in attendance. Chemical burns must be treated by a physician.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Wash thoroughly after dealing with a spillage. Ensure

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procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid inhalation of vapours. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes. Avoid contact with contaminated tools and objects.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water. The contaminated absorbent may pose the same hazard as the spilled material. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Wear suitable protective clothing when mixing or working with the product. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. Avoid incompatible materials and conditions - see section 10 of SDS. Do Not Allow to Freeze Ensure a retention tank is installed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

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Workplace exposure limits:

Respirable dust

| State | 8 hour TWA | 15 min. STEL | 8 hour TWA | 15 min. STEL |
|-------|--------------------|--------------------|------------|--------------|
| EU | 1mg/m ³ | 2mg/m ³ | - | - |

Hazardous ingredients:

ORTHOPHOSPHORIC ACID...100%

Workplace exposure limits:

Respirable dust

| State | 8 hour TWA | 15 min. STEL | 8 hour TWA | 15 min. STEL |
|-------|---------------------|---------------------|------------|--------------|
| UK | 1 mg/m ³ | 2 mg/m ³ | - | - |

DNEL/PNEC Values

PHOSPHORIC ACID 75%

| Type | Exposure | Value | Population | Effect |
|------|------------|------------------------|------------|----------|
| DNEL | Inhalation | 1mg/m ³ | Workers | Local |
| DNEL | Inhalation | 2mg/m ³ | Workers | Local |
| DNEL | Inhalation | 10.27mg/m ³ | Workers | Systemic |
| DNEL | Oral | 0.1mg/kg/day | Consumers | Systemic |
| DNEL | Inhalation | 0.36mg/m ³ | Consumers | Local |
| DNEL | Inhalation | 4.57mg/m ³ | Consumers | Local |

8.2. Exposure controls

Engineering measures: Ensure there is exhaust ventilation of the area. Ensure all engineering measures mentioned in section 7 of SDS are in place. Use product only in closed system.
Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Wear suitable synthetic gloves (Category 3, Class 3) resistant to chemical penetration (cfr. EN374)

Eye protection: Face-shield. Use equipment for eye protection tested and approved under appropriate government standards such as EN166 Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Pungent

Evaporation rate: No data available.

Oxidising: No data available.

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Solubility in water: Soluble

Viscosity: No data available.

Boiling point/range°C: 135

Melting point/range°C: -18

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: No data available.

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Vapour pressure: 10mm Hg at 30C

Relative density: 1.5 - 1.6

pH: <1

VOC g/l: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Avoid Freezing

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Bases. Oxidising agents. Metals.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

| Route | Species | Test | Value | Units |
|-------|---------|------|----------|-------|
| ORAL | RAT | LD50 | 300-2000 | mg/kg |

Hazardous ingredients:

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ORTHOPHOSPHORIC ACID...100%

| | | | | |
|-----|-----|------|------|-------|
| ORL | RAT | LD50 | 1530 | mg/kg |
|-----|-----|------|------|-------|

Relevant hazards for product:

| Hazard | Route | Basis |
|-------------------------------|-------|-----------------------|
| Acute toxicity (ac. tox. 4) | ING | Hazardous: calculated |
| Skin corrosion/irritation | DRM | Hazardous: calculated |
| Serious eye damage/irritation | OPT | Hazardous: calculated |

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

| Species | Test | Value | Units |
|---------------|----------|-------|-------|
| Daphnia magna | 48H EC50 | >100 | mg/l |

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

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13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company. Dispose in a safe manner in accordance with local/national regulations. Avoid release into the environment

Disposal of packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN1805

14.2. UN proper shipping name

Shipping name: PHOSPHORIC ACID, SOLUTION

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

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Phrases used in s.2 and s.3: H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.

Legend to abbreviations: PNEC = predicted no effect concentration

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

LDLO = lethal dose low

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

IPR = intraperitoneal

SCU = subcutaneous

ORL = oral

SKN = skin

DRM = dermal

OCC = ocular/corneal

OPT = optical

ING = ingestion

INH = inhalation

PCP = physico-chemical properties

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.