

Revision: 1.1

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Section 1. Identification

1.1 Product Identifier 1925

Product Name PHOSPHATE BUFFER SOLUTION (FOR NORMAL/HARD WATER)

CAS Number Mixture

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Not classified as hazardous.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Not classified as hazardous.

Section 3. Composition

3.2 Mixtures

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|----------------------|-----------|-----------|-----------------------|----------|---------------------------------------------|
| Orthophosphoric acid | 7664-38-2 | 231-633-2 | 01-2119485924-24-XXXX | 8% | Skin Corr. 1B, Acute Tox. 4 (O), Eye Dam. 1 |

Section 4. First Aid

4.1 Description of first aid measures

| | |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION. |
| Skin | Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. If irritation persists or there is any sign of skin damage, seek IMMEDIATE MEDICAL ASSISTANCE |
| Inhalation | Remove from exposure. |
| Ingestion | If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY. |
| Personal protection for first aiders | Wear protective gloves / eye protection. |

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

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

| | |
|---------------------|--------------------------------------------------------------------------|
| Extinguishing Media | Consider what other flammable materials are present and act accordingly. |
| Unsuitable Media | Nothing specified. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------|-----------------------------------|
| Hazards | Presents no specific fire danger. |
|---------|-----------------------------------|

5.3 Advice for firefighters

| | |
|-------------------------|-----------------------------------------------|
| Advice for firefighters | Consider all other materials in the vicinity. |
|-------------------------|-----------------------------------------------|

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal Protection | Use approved personal protective equipment. Evacuate area immediately. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so. |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

6.2 Environmental precautions

| | |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental | Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

6.3 Methods and material for containment and cleaning up

| | |
|----------------|------------------------------------------------------------------------------------------------------------------------------|
| Major Spillage | Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. Wash area down with copious amounts of water. |
| Minor Spillage | Wash area down with copious amounts of water. |

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.
Ensure Local Exhaust Ventilation maintains vapour concentrations to a minimum.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

| Component | CAS No | Concentration | Workplace Exposure Limits | | | |
|----------------------|-----------|---------------|---------------------------|-------------------------|---|------------|
| | | | Long Term (8hr TWA) | Short Term 15min period | | |
| Orthophosphoric acid | 7664-38-2 | 8% | - | 1.0 mg/m-3 | - | 2.0 mg/m-3 |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

| | |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respiratory Protection | Use L.E.V. or natural ventilation to reduce vapour concentrations to a minimum. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus. |
| Hand Protection | Use nitrile gloves or PVC gauntlets. |
| Eye Protection | Use tightly fitting chemical splash proof glasses or goggles. |
| Skin Protection | If skin contact or contamination of clothing is likely, protective clothing must be worn. |
| Special Hazards | No special precautions required. |

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|------------------------------|
| Appearance | Clear colourless liquid. |
| Odour | Odourless. |
| pH | 2 @ 20°C |
| Boiling Point | Aqueous solution |
| Melting Point | Not applicable |
| Flash Point | Not applicable |
| Upper Flammable Limit | Not applicable |
| Lower Flammable Limit | Not applicable |
| Auto Ignition | Not applicable |
| Explosive Properties | No. |
| Oxidising Properties | No. |
| Vapour Pressure | Not applicable |
| Relative Density | 1.2000 |
| Water Solubility | Completely soluble in water. |

9.2 Other information

No data available.

Section 10. Stability & Reactivity

| | |
|-----------------------------------------|--------------------------------|
| 10.1 Reactivity | No data available. |
| 10.2 Chemical Stability | Stable under normal conditions |
| 10.3 Possibility of hazardous reactions | No data available. |
| 10.4 Conditions to Avoid | No specific conditions. |
| 10.5 Incompatible Materials | Alkalis. |
| 10.6 Hazardous Decomposition Products | None unusual. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes The liquid will be irritating to the eyes but unlikely to cause serious injury.

| | |
|----------------------|--------------------------------------------------------------------------------------------------------|
| Skin | Repeated or prolonged contact may defat the skin producing irritation and dermatitis. |
| LD50 Skin | Not available |
| Ingestion | Low order of acute toxicity. |
| LD50 Oral | Not available |
| Inhalation | High concentrations of vapour will produce irritation of the eyes, nose, throat and respiratory tract. |
| LD50 Inhalation | Not available |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | None identified. |

Section 12. Ecological

| | |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 12.1 Toxicity | Small amounts present no specific environmental hazard. Neutralised material presents no specific environmental hazard. |
| LC50 Algal | Not available |
| LC50 Crustacea | Not available |
| LC50 Fish | Not available |
| 12.2 Persistence and degradability | No data available. |
| 12.3 Bioaccumulative potential | No data available. |
| 12.4 Mobility in soil | No data available. |
| 12.5 Results of PBT & vPvB assessment | Assessment not required. |
| 12.6 Other adverse effects | None known at present. |

Section 13. Disposal Considerations

13.1 Waste treatment methods

| | |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Disposal Methods | Dilute in a large excess of water and carefully neutralise with soda ash, then wash to drain with copious amounts of water. |
| Contaminated Packaging | Wash out containers with water. Use a licensed waste disposer. |

Section 14. Transport Information

| | |
|------------------------------------------|----------------------------------|
| 14.1 UN Number | Non-restricted |
| 14.2 Proper Shipping Name | Non-restricted |
| 14.3 Transport classes | |
| UN classification | None |
| Subsidiary hazard(s) | None |
| Transport category | None |
| ADR Hazard ID | Non-restricted |
| Tunnel Restriction Code | Non-restricted |
| 14.4 Packing Group | None |
| 14.5 Environment hazards | See section 12. |
| 14.6 Special precautions for user | No special precautions required. |
| 14.7 Transport in bulk | Not transported in bulk. |

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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