

Revision: 1.1

Revision date:

16 April 2021

Date printed:

03 February 2023

Section 1. Identification

1.1 Product Identifier 0510

Product Name BUFFER SOLUTION PH 4.5

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



Grangefield Industrial Estate
Richardshaw Road
Pudsey
West Yorkshire
LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811

Fax +44(0)113 2362703

Email safety@viclabs.co.uk

Website www.viclabs.co.uk

1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Skin corrosion/irritation, category 2

H315: Causes skin irritation.

Serious eye damage/irritation, category 2

H319: Causes serious eye irritation.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Warning

Hazard Pictograms



Hazard Statements Causes skin irritation. Causes serious eye irritation.

Precautionary Statements Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Section 3. Composition

3.2 Mixtures

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|-------------|---------|-----------|-----------------------|----------|-----------------------------------|
| Acetic acid | 64-19-7 | 200-580-7 | 01-2119475328-30-XXXX | ~14% | Flam. Liq. 3, Skin Corr. 1A |

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. 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. |
| 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 | Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool. |
| Unsuitable Media | Do not use water jet. |

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

| | |
|-------------------------|--|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|--|

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

| | |
|---------------|--|
| Environmental | Keep 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 | Contain and absorb on inert material. Transfer absorbent to container for removal. 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 below the recommended limits.

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 | | |
| Acetic acid | 64-19-7 | ~14% | 10.0 ppm | 25.0 mg/m-3 | 20.0 ppm | 50.0 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 maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus. |
| Hand Protection | Use nitrile gloves or PVC gauntlets. |
| Eye Protection | Use chemical full face shield. |
| Skin Protection | Avoid contact with skin. Wear PVC oversuit. |
| 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 | Sharp vinegary odour and burning taste. |
| pH | 4.5 |
| Boiling Point | 100 °C |
| Melting Point | 0 °C |
| 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 | 1.000 |
| 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 | Strong oxidising agents. |
| 10.6 | Hazardous Decomposition Products | None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|--|
| Eyes | Causes serious eye irritation. |
| Skin | Causes skin irritation. |
| LD50 Skin | Not available |
| Ingestion | Low order of acute toxicity. Causes severe corrosion of the mouth, throat and gastro-intestinal tract. |
| LD50 Oral | Not available |
| Inhalation | High concentrations of vapour will produce severe 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. |
| Other Information | The irritant effect provides warning that control of exposure is needed. 10ppm is the threshold for irritation with severe irritation occurring above 25ppm. |

Section 12. Ecological

| | | |
|-------------|----------------------------------|--|
| 12.1 | Toxicity | Readily bio-degraded in the environment. Slightly toxic to aquatic species but is unlikely to bioaccumulate. |
| | 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 | 2790 |
| 14.2 Proper Shipping Name | Acetic acid solution |
| 14.3 Transport classes | |
| UN classification | 8 |
| Subsidiary hazard(s) | None |
| Transport category | 3 |
| ADR Hazard ID | 80 |
| Tunnel Restriction Code | E |
| 14.4 Packing Group | III |
| 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.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 2

Signal word Warning

Hazard Pictograms



Hazard Statements H315, H319
Causes skin irritation. Causes serious eye irritation.

Precautionary Statements P264, P280, P302+P352, P332+P313, P362
Wash thoroughly after handling. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

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.

Revision number: 1.1 (Supercedes revision 1.0)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 03 February 2023

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