# Vickers Laboratories Ltd - Safety Data Sheet 4506

**(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)**

Revision: 1.1 Revision date: 16 April 2021
Date printed: 03 February 2023

## Section 1. Identification

**1.1 Product Identifier** 4506

Product Name ETCH SOLUTION 1

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 Relevent identified uses of the substance or mixure & 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 1 | H318: Causes serious eye damage. |
| Spec target organ tox - single, category 3 | H335: May cause respiratory irritation. |
| Hazard to aquatic environment, category 1 | H400: Very toxic to aquatic life. |
| Hazard to aquatic environment, category 1 | H410: Very toxic to aquatic life with long lasting effects. |

**2.2 Label elements**

**Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms

| | |
|---|---|
| Hazard Statements | Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects. |
| Precautionary Statements | Wear protective gloves / protective clothing / eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. Avoid release to the environment. |

## Section 3. Composition

### 3.2 Mixtures

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|---|---|---|---|---|---|
| Hydrochloric acid | 7647-01-0 | 231-595-7 | 01-2119484862-27-XXXX | <25% | Skin Corr. 1A,STOT SE 3 (I) |
| Cupric sulphate | 7758-99-8 | 231-847-6 | 01-2119520566-40-XXXX | <10% | Acute Tox. 4 (O),Eye Dam. 1,Aquatic Acute 1,Aquatic Chronic 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. OBTAIN MEDICAL ATTENTION. |
| Skin | Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION. |
| Inhalation | Remove from exposure. |
| Ingestion | Wash out the patients mouth thoroughly with water. 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 general use of area until it is safe to do so. |

**6.2 Environmental precautions**

| | |
|---|---|
| Enviromental | 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 | Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water. |
| Minor Spillage | Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. 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) | |
| Hydrochloric acid | 7647-01-0 | <25% | 1.0 ppm | 2.0 mg/m-3 | 5.0 ppm | 8.0 mg/m-3 |
| Cupric sulphate | 7758-99-8 | <10% | - | - | - | - |

| | |
|---|---|
| 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 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 | Green solution. |
| Odour | Odourless. |
| pH | 1 @ 20°C |
| Boiling Point | 108.6°C |
| Melting Point | -55°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 | 1.0820 |
| Water Solubility | Completely miscible 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** | Incompatable Materials | Alkalis. Potassium permanganate. Reacts with most metals to produce extremely flammable hydrogen gas. |
| **10.6** | Hazardous Decomposition Products | Will decompose to emit toxic and irritant fumes of hydrogen chloride. |

## Section 11. Toxicological Information

**11.1 Information on toxicological effects**

| | |
|---|---|
| Eyes | The liquid is irritating to the eyes but unlikely to cause serious injury. |
| Skin | The liquid will be an irritant on brief or occasional exposure. May cause burns on prolonged contact. |
| LD50 Skin | Not available |
| Ingestion | Ingestion of large amounts may produce severe mouth burns, and if swallowed extensive damage to the oesophagus. Symptoms may include salivation, thirst, difficulty in swallowing, pain, shock and vomiting. |
| LD50 Oral | Not available |
| Inhalation | Presents no significant health hazard by inhalation. |
| 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 | 5-10ppm is the threshold for irritation with severe irritation occurring at 50-100 ppm. |

## Section 12. Ecological

| | | |
|---|---|---|
| **12.1** | Toxicity | 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 | Carefully neutralise with a weak sodium hydroxide solution then wash out thoroughly with water. Use a licensed waste disposer. |

## Section 14. Transport Information

| | | |
|---|---|---|
| **14.1** | **UN Number** | 1760 |
| **14.2** | **Proper Shipping Name** | Corrosive liquid, N.O.S. |
| **14.3** | **Transport classes** | |
| | UN classification | 8 |
| | Subsidiary hazard(s) | None |
| | Transport category | 2 |
| | ADR Hazard ID | 80 |
| | Tunnel Restriction Code | E |
| **14.4** | **Packing Group** | II |
| **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 subtance/mixture.**

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

| | |
|---|---|
| Classification | Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 1; Spec target organ tox - single, category 3; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 1 |
| Signal word | Danger |
| Hazard Pictograms |  |
| Hazard Statements | H315, H318, H335, H410<br>Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects. |
| Precautionary Statements | P280, P301+P330+P331, P303+P361+P353, P305+P351+P338, P273<br>Wear protective gloves / protective clothing / eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. Avoid release to the environment. |

**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: 04 May 2021

Printed date: 03 February 2023