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Section 1. Identification

1.1 Product Identifier 2497

Product Name REAGENT 2 (100g/L.) (for ELE-pHOX 1801 AMMONIA MONITOR)

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

Skin corrosion/irritation, category 1A

H314: Causes severe skin burns and eye damage.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Causes severe skin burns and eye damage.

Precautionary Statements Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. Wash contaminated clothing before reuse. 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.

Section 3. Composition

3.2 Mixtures

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|------------------|---------|---------|-----------------------|----------|-----------------------------------|
| Sodium hydroxide | | | 01-2119457892-27-XXXX | ~10% | 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 URGENTLY. |
| 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. Keep warm and at rest. Remove from exposure. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. |
| 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.

Main health hazard is that it causes severe burns to skin and eyes.

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 | Avoid breathing vapour. 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 | Contain spill with inert material. Neutralise with 5M hydrochloric acid. 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

Store in a dry place protected against moisture and water. Keep well separated from acids, metals, explosives, organic peroxides and ignitable materials.

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 | |
| Sodium hydroxide | | ~10% | - | - | 2.0 mg/m-3 |

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

8.2 Exposure controls

| | |
|------------------------|--|
| Respiratory Protection | In cases where a spray or mist may be formed, 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 chemical full face shield. |
| Skin Protection | If skin contact or contamination of clothing is likely, protective clothing must be worn. 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 | Odourless. |
| pH | 14 @ 20°C |
| Boiling Point | 105°C |
| Melting Point | -8°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 | 1.0990 |
| 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 | Acids. Warm ammoniacal silver nitrate. 4-chloro-2-methylphenol. Nitrobenzene. Sodium tetrahydroborate. Bromine. Reacts with aluminium and zinc to produce extremely flammable hydrogen gas. Chloroform and methanol. |
| 10.6 | Hazardous Decomposition Products | None unusual. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|--|
| Eyes | The liquid and solutions will cause severe burns. Damage can range from severe irritation and corneal scarring to permanent blindness. |
| Skin | Contact with the liquid or solutions will not lead to immediate pain but damage begins at once. Severe ulceration and scarring may occur in serious cases. |
| LD50 Skin | Not available |
| Ingestion | Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus. |
| LD50 Oral | >2000mg/kg Rabbit Acute toxicity estimate |
| 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. |

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 an acid, then wash to drain with copious amounts of water |
| Contaminated Packaging | Clean out with a weak hydrochloric acid solution then wash out thoroughly with water. |

Section 14. Transport Information

| | |
|-----------------------------------|----------------------------------|
| 14.1 UN Number | 1824 |
| 14.2 Proper Shipping Name | Sodium hydroxide solution |
| 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 substance/mixture.

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

Classification Skin corrosion/irritation, category 1A

Signal word Danger

Hazard Pictograms



Hazard Statements H314
Causes severe skin burns and eye damage.

Hazard Statements (Packs of 100ml/g or less) H314
Causes severe skin burns and eye damage.

Precautionary Statements P280, P264, P363, P301+P330+P331, P303+P361+P353, P305+P351+P338
Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. Wash contaminated clothing before reuse. 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.

Precautionary Statements (Packs of 100ml/g or less) P280, P264, P305+P351+P338
Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

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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