

Revision: 3.0  
(Replaces revision 2.0 of 18 June 2021)Revision date: 21 October 2021  
Date printed: 16 August 2023**Section 1. Identification****1.1 Product Identifier** 0974

Product Name METROHM AMMONIA - ACTIVATOR SOLUTION

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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(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 1A H314: Causes severe skin burns and eye damage.  
Hazard to aquatic environment, category 3 H412: Harmful 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 severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

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            | 1310-73-2  | 215-185-5 | 01-2119457892-27-XXXX | 4.5%     | Skin Corr. 1A   |
| Sodium dichloroisocyanurate | 51580-86-0 | 220-767-7 |                       | ~1%      | Ox. Sol. 2, Acute Tox. 4 (O), Eye Irrit. 2, STOT SE 3 (I), 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 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.   |
| 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 | 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            | 1310-73-2  | 4.5%          | -                         | -                       | 2.0 mg/m-3 |
| Sodium dichloroisocyanurate | 51580-86-0 | ~1%           | -                         | -                       | -          |

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 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                    | Not applicable                |
| 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      | Not available                 |
| 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 | Incompatible Materials             | Acids. Reacts with aluminium and zinc to produce extremely flammable hydrogen gas. |
| 10.6 | Hazardous Decomposition Products   | None unusual.  |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

|                      |   |
|----------------------|---|
| Eyes                 | The liquid will cause burns. Damage can range from severe irritation and corneal scarring to permanent blindness.                             |
| Skin                 | Contact with the liquid 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            | 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.  |

## Section 12. Ecological

|      |                                  |   |
|------|----------------------------------|---|
| 12.1 | Toxicity                         | Very toxic to aquatic life. 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       | Do not dispose of as domestic waste.  |
| 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; Hazard to aquatic environment, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H314, H412  
Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

Hazard Statements (Packs of 100ml/g or less) H314, H400  
Causes severe skin burns and eye damage. Very toxic to aquatic life.

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  
Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling.

### 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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Revision: 1.1

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16 April 2021

Date printed:

16 August 2023

## Section 1. Identification

### 1.1 Product Identifier 0975

Product Name METROHM AMMONIA - COLOUR SOLUTION

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

Flammable liquid, category 2 H225: Highly flammable liquid and vapour.  
Serious eye damage/irritation, category 2 H319: Causes serious eye irritation.  
Spec target organ tox - single, category 3 H336: May cause drowsiness or dizziness.  
Hazard to aquatic environment, category 3 H412: Harmful 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        | Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.  |
| Precautionary Statements | Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Store in a well ventilated place. Keep cool. |

## Section 3. Composition

### 3.2 Mixtures

| Component   | CAS No. | EEC No.   | REACH No.             | Conc w/w | CLP Classification (1272/2008/CE)                  |
|-------------|---------|-----------|-----------------------|----------|--|
| Propan-2-ol | 67-63-0 | 200-661-7 | 01-2119457558-25-XXXX | 39.3%    | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3 (D)          |
| Thymol      | 89-83-8 | 201-944-8 |                       | 4%       | Skin Corr. 1B, Acute Tox. 4 (O), Aquatic Chronic 2 |

## 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.   |
| Inhalation                           | Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.                        |
| Ingestion                            | If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. 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 | 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 | Vapour-air mixtures are explosive. |
|---------|------------------------------------|

### 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 | Ensure no sources of ignition. 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. Beware : vapour is heavier than air and will tend to accumulate at low spots. |
|---------------------|---|

### 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 salvage container for removal. Wash area down with copious amounts of water.

Minor Spillage Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. 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

All transfer systems should be earthed to prevent accumulation of static electricity. 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 . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

### 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 |           |               |
| Propan-2-ol | 67-63-0 | 39.3%         | 400.0 ppm                 | 999.0 mg/m-3            | 500.0 ppm | 1250.0 mg/m-3 |
| Thymol      | 89-83-8 | 4%            | -                         | -                       | -         | -             |

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 solvent resistant gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin. 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 Fresh and characteristic.

pH Not applicable

Boiling Point Not available

Melting Point Not applicable

Flash Point Not applicable

Upper Flammable Limit Not applicable

Lower Flammable Limit Not applicable

Auto Ignition Not applicable

Explosive Properties Moderate/severe in confined spaces.

|                      |                               |
|----------------------|-------------------------------|
| Oxidising Properties | No.                           |
| Vapour Pressure      | Not applicable                |
| Relative Density     | 0.9405                        |
| 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                | Hot surfaces, naked flames or other sources of ignition.  |
| 10.5 | Incompatible Materials             | Strong oxidising agents. Nitric acid. Silver nitrate, potassium perchlorate, chromyl chloride, chromium trioxide and permanganic acid. Peroxides, potassium permanganate, sodium, potassium, platinum, potassium tertiary butoxide. |
| 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                 | Both the vapour and liquid may, be irritating to the eyes. High concentrations of vapour may produce conjunctival irritation and corneal damage.  |
| Skin                 | Repeated or prolonged contact may defat the skin producing irritation and dermatitis. Many of the effects typical of the vapour can result from absorption through the skin.  |
| LD50 Skin            | Not available   |
| Ingestion            | Low order of acute toxicity. Ingestion of large amounts will produce central nervous system depression. Ingestion will cause similar effects to inhalation.   |
| LD50 Oral            | Not available   |
| Inhalation           | Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes and respiratory tract. High concentrations of vapour may effect the central nervous system acting as a narcotic. |
| 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                         | LC50, 96hr, fish 9600 mg/l; EC50, 24hr, Daphnia >10000 mg/l; Readily bio-degraded in the environment. |
|      | LC50 Algal                       | Not available   |
|      | LC50 Crustacea                   | Not available   |
|      | LC50 Fish                        | Not available   |
| 12.2 | Persistence and degradability    | See results above.  |
| 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       | Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion. |
| Contaminated Packaging | Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.   |

## Section 14. Transport Information

|                                   |                                  |
|-----------------------------------|----------------------------------|
| 14.1 UN Number                    | 1219                             |
| 14.2 Proper Shipping Name         | Isopropanol                      |
| 14.3 Transport classes            |                                  |
| UN classification                 | 3                                |
| Subsidiary hazard(s)              | None                             |
| Transport category                | 2                                |
| ADR Hazard ID                     | 33                               |
| Tunnel Restriction Code           | D/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 Flammable liquid, category 2; Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3; Hazard to aquatic environment, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H225, H319, H336, H412  
Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

Precautionary Statements P210, P280, P305+P351+P338, P337+P313, P303+P361+P353, P403+P235  
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Store in a well ventilated place. Keep cool.

### 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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16 August 2023

## Section 1. Identification

### 1.1 Product Identifier 1008

Product Name AMMONIA MONITOR STANDARD 0.5ppm (as NH<sub>3</sub>)

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

No hazardous components.

## 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.

|                                      |  |
|--------------------------------------|--|
| Skin                                 | Wash off skin thoroughly with water.               |
| Inhalation                           | Remove from exposure.                              |
| Ingestion                            | Wash out the patients mouth thoroughly with water. |
| 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 | Presents no major hazards. |
|---------------------|----------------------------|

### 6.2 Environmental precautions

|               |   |
|---------------|---|
| Environmental | Presents no major environmental hazard. |
|---------------|---|

### 6.3 Methods and material for containment and cleaning up

|                |   |
|----------------|---|
| Major Spillage | 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

No specific precautions.

### 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

Exposure data source(s) No hazardous components.

## 8.2 Exposure controls

|                        |   |
|------------------------|---|
| Respiratory Protection | Presents no significant inhalation health hazard.   |
| Hand Protection        | Use nitrile gloves or PVC gauntlets.  |
| Eye Protection         | No specific hazard through eye contact although the wearing of safety glasses is advised. |
| 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                 | No specific odour.            |
| pH                    | 7                             |
| 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 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 Incompatible Materials             | No specific materials to avoid. |
| 10.6 Hazardous Decomposition Products   | None unusual.                   |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

|                 |  |
|-----------------|--|
| Eyes            | Presents no significant health hazard to the eyes.   |
| Skin            | Presents no significant hazard by skin contact.      |
| LD50 Skin       | Not available  |
| Ingestion       | Presents no significant hazard by ingestion.         |
| 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.

## Section 12. Ecological

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

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

|                        |  |
|------------------------|--|
| Disposal Methods       | Flush to drain.  |
| Contaminated Packaging | Wash out containers with water. Use a licensed waste disposer. |

## Section 14. Transport Information

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

## Section 15. Regulatory Information

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

Not classified as hazardous under Classification, Labelling & Packaging of Substances & Mixtures Regulations (1272/2008/CE).

### 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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**Section 1. Identification****1.1 Product Identifier** 1110

|                       |   |
|-----------------------|---|
| Product Name          | NITRIC ACID CLEANING SOLUTION FOR METROHM ANALYSERS   |
| 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**

|  |  |
|--|--|
| Corrosive to metals, category 1        | H290: May be corrosive to metals.              |
| Skin corrosion/irritation, category 1B | H314: Causes severe skin burns and eye damage. |

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms

**Section 3. Composition**

### 3.1 Substances

| Component   | CAS No.   | EEC No.   | REACH No.             | Conc w/w | CLP Classification (1272/2008/CE)           |
|-------------|-----------|-----------|-----------------------|----------|---|
| Nitric acid | 7697-37-2 | 231-714-2 | 01-2119487297-23-XXXX | 6.3%     | Ox. Liq. 3, Skin Corr. 1A, Acute Tox. 3 (I) |

## Section 4. First Aid

### 4.1 Description of first aid measures

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

Unsuitable Media Consider what other flammable materials are present and act accordingly.

### 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

### 6.2 Environmental precautions

### 6.3 Methods and material for containment and cleaning up

### 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

### 7.2 Conditions for safe storage, including any incompatibilities

### 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          |
| Nitric acid | 7697-37-2 | 6.3%          | -                         | 1.0 ppm<br>2.8 mg/m <sup>3</sup> |

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

## 8.2 Exposure controls

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.  
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                    | 1 @ 20°C                      |
| 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      | 1.0271                        |
| 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                 | No data available.              |
| 10.3 Possibility of hazardous reactions | No data available.              |
| 10.4 Conditions to Avoid                | No specific conditions.         |
| 10.5 Incompatible Materials             | No specific materials to avoid. |

# Section 11. Toxicological Information

## 11.1 Information on toxicological effects

|                 |                    |
|-----------------|--------------------|
| LD50 Skin       | Not available      |
| LD50 Oral       | Not available      |
| LD50 Inhalation | Not available      |
| TCLo            | Not available      |
| Mutagenicity    | No data available. |

# Section 12. Ecological

|                                    |                    |
|------------------------------------|--------------------|
| 12.1 Toxicity                      | No data available. |
| 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

## Section 14. Transport Information

|      |                              |                                  |
|------|------------------------------|----------------------------------|
| 14.1 | UN Number                    | 2031                             |
| 14.2 | Proper Shipping Name         | Nitric acid                      |
| 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 Corrosive to metals, category 1; Skin corrosion/irritation, category 1B

Signal word Danger

Hazard Pictograms



### 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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