


Prepared in accordance with 1907/2006/EC, Article 31

**SECTION 1 - IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

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|--|--|
| <b>1.1 Product identifier</b>  | HM4 Sodium Tetraborate Buffer Solution 250mL   |
| <b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> | SU3 Industrial uses  |
| <b>1.3 Details of the supplier of the safety data sheet</b>                              | Trace2o Ltd, The Technology Centre, Wagtech Court, Station Road, Thatcham, Berkshire. RG19 4HZ. Tel: +44 (1635) 866772. Fax: +44 (1635) 873509. Email: technical@trace2o.com                         |
| <b>1.4 Emergency telephone number</b>  | Contact Trace2o UK at +44 (1635) 866772 between 0830 and 1700 UK time Mon-Fri. Information provided by Trace2o is for guidance on the nature of hazards only and does not constitute medical advice. |

**SECTION 2 - HAZARDS IDENTIFICATION**

|   |  |
|---|--|
| <b>2.1 Classification of the substance or mixture</b>           |  |
| <b>Classification according to Regulation (EC) No 1272/2008</b> |  GHS08;<br>H360 |
| <b>2.2 Label elements</b>                                       | The mixture is classified and labelled according to the CLP regulation.                          |
| <b>2.3 Other hazards</b>  | N/A  |

**SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**

| <b>3.2 Mixtures (Dangerous components)</b> |                |           |           |                        |
|--|----------------|-----------|-----------|------------------------|
| Substance                                  | Amount (% w/w) | CAS No.   | EC No.    | Hazard statements      |
| Sodium tetraborate decahydrate             | < 1            | 1303-96-4 | 215-540-4 | H360                   |
| Ammonium hydroxide                         | <0.1           | 1336-21-6 | 215-647-6 | H302, H314, H335, H400 |

**SECTION 4 - FIRST AID MEASURES**

|   |   |
|---|---|
| <b>4.1 Description of first aid measures</b>  |   |
| <b>General information</b>  | In case of concerning symptoms, consult a physician. Show this data sheet.  |
| <b>Skin contact</b>   | Wash affected area with soap and water for at least 30 minutes, and rinse thoroughly. Seek medical advice if symptoms persist.      |
| <b>Eye contact</b>  | Flush eyes with copious amounts of water for at least 15 minutes. SEEK MEDICAL ADVICE IMMEDIATELY.                                  |
| <b>Inhalation</b>   | Remove person to fresh air. If required, provide artificial respiration. Keep person warm. Seek medical advice if symptoms persist. |
| <b>Ingestion</b>  | Wash out mouth with water, then drink 1-2 glasses of water. Do not induce vomiting. SEEK MEDICAL ADVICE IMMEDIATELY.                |
| <b>4.2 Most important symptoms and effects, both acute and delayed</b>                | May damage fertility or the unborn child.   |
| <b>4.3 Indication of any immediate medical attention and special treatment needed</b> | None available.   |

## SECTION 5 - FIRE FIGHTING MEASURES

|  |   |
|--|---|
| <b>5.1 Extinguishing media</b>                                   | Foam, dry powder, carbon dioxide, water spray, sand. Do not use a heavy water stream. |
| <b>5.2 Special hazards arising from the substance or mixture</b> | No data available.  |
| <b>5.3 Advice for firefighters</b>                               | Wear self contained breathing apparatus for fire fighting if necessary.               |

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> | Wear personal protective equipment whilst handling product. Keep unprotected people away. Ensure adequate ventilation.                                  |
| <b>6.2 Environmental precautions</b>   | Do not allow product to reach sewage system or water bodies.  |
| <b>6.3 Methods and material for containment and cleaning up</b>                | Ensure adequate ventilation. Collect mechanically using suitable absorbent material. Dispose of contaminated material as waste according to section 13. |
| <b>6.4 Reference to other sections</b>   | See section 8 of SDS for detailed information on personal protective equipment.   |

## SECTION 7 - HANDLING AND STORAGE

|   |  |
|---|--|
| <b>7.1 Precautions for safe handling</b>                                | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Do not eat, drink or smoke whilst handling. Do not use unless adequately trained in safe handling. Provide good ventilation.   |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b> | Store in original container, in a cool, dry, dark place. Keep lid tightly closed. Containers with seal broken should be resealed or stored upright to prevent leakage. Store away from foodstuffs. Store away from strong oxidisers. Store away from strong acids. Store away from heat sources. |
| <b>7.3 Specific end use(s)</b>  | No data available.   |

## SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

|                                      |  |                           |   |
|--------------------------------------|--|---------------------------|---|
| <b>8.1 Control parameters</b>        | Components with limit values that require monitoring at the workplace: sodium tetraborate, ammonium hydroxide  |                           |   |
| <b>8.2 Exposure controls</b>         |  |                           |   |
| <b>Engineering controls</b>          | Handle in accordance with good industrial hygiene and safety practice. Wash hands after use. Emergency eye wash fountains should be available in the immediate vicinity of use/handling. |                           |   |
| <b>Personal protective equipment</b> |  |                           |   |
| <b>Eye/face protection</b>           | Safety glasses with side shield  | <b>Skin protection</b>    | Handle with gloves. Use proper glove removal technique. |
| <b>Respiratory protection</b>        | None required provided use is as directed  | <b>Thermal protection</b> | None required   |

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

|  |                   |  |                   |
|--|-------------------|--|-------------------|
| <b>9.1 Information on basic physical and chemical properties</b> |                   |  |                   |
| <b>Appearance, odour, and odour threshold (if relevant):</b>     | Colourless liquid | <b>pH:</b>   | 8.5               |
| <b>Melting/freezing point (°C):</b>                              | ≈ 0°C             | <b>Initial boiling point &amp; range (°C):</b>       | ≈ 100°C           |
| <b>Flash point (°C):</b>   | No data available | <b>Evaporation rate:</b>                             | No data available |
| <b>Flammability (solid, gas):</b>                                | No data available | <b>Upper/lower flammability or explosive limits:</b> | No data available |
| <b>Vapour pressure:</b>  | No data available | <b>Vapour density:</b>                               | No data available |
| <b>Relative density:</b>   | No data available | <b>Solubility(ies):</b>                              | No data available |
| <b>Partition coefficient: n-octanol/water;</b>                   | No data available | <b>Auto-ignition temperature:</b>                    | No data available |

|                                   |                   |                              |                   |
|-----------------------------------|-------------------|------------------------------|-------------------|
| <b>Decomposition temperature:</b> | No data available | <b>Viscosity:</b>            | No data available |
| <b>Explosive properties:</b>      | No data available | <b>Oxidising properties:</b> | No data available |
| <b>9.2 Other Information</b>      | No data available |                              |                   |

**SECTION 10 - STABILITY AND REACTIVITY**

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                         | No data available.                     |
| <b>10.2 Chemical stability</b>                 | Stable if stored and used as directed. |
| <b>10.3 Possibility of hazardous reactions</b> | No data available.                     |
| <b>10.4 Conditions to avoid</b>                | Extremely high or low temperatures.    |
| <b>10.5 Incompatible materials</b>             | Strong acids. Strong oxidisers.        |
| <b>10.6 Hazardous decomposition products</b>   | Boron.                                 |

**SECTION 11 - TOXICOLOGICAL INFORMATION**

|  |   |                      |                       |
|--|---|----------------------|-----------------------|
| <b>11.1 Information on toxicological effects</b> |   |                      |                       |
| <b>Inhalation</b>                                | Irritating to respiratory system.         | <b>Ingestion</b>     | Harmful if swallowed. |
| <b>Eye contact</b>                               | Causes serious eye damage.                | <b>Skin contact</b>  | Irritating to skin.   |
| <b>Carcinogenicity/<br/>mutagenicity</b>         | May damage fertility or the unborn child. | <b>Sensitisation</b> | No data available     |
| <b>Chronic effects</b>                           | No data available                         | <b>Other</b>         | No data available     |

**SECTION 12 - ECOLOGICAL INFORMATION**

|  |                   |   |                                 |
|--|-------------------|---|---------------------------------|
| <b>12.1 Toxicity</b>                           | Toxic to fish.    | <b>12.2 Persistence and degradability</b> | No data available.              |
| <b>12.3 Bioaccumulative potential</b>          | No data available | <b>12.4 Mobility in soil</b>              | No data available.              |
| <b>12.5 Results of PBT and vPbB assessment</b> | No data available | <b>12.6 Other adverse effects</b>         | May be harmful to aquatic life. |

**SECTION 13 - DISPOSAL CONSIDERATIONS**

|                                     |   |
|-------------------------------------|---|
| <b>13.1 Waste treatment methods</b> | Offer to licensed disposal company for disposal in accordance with local regulations. |
| <b>Packagings</b>                   | Dispose of as unused product.   |

**SECTION 14 - TRANSPORT INFORMATION**

|   |     |  |     |
|---|-----|--|-----|
| <b>14.1 UN number</b>   | N/A | <b>14.2 UN proper shipping name</b>      | N/A |
| <b>14.3 Transport hazard class(es)</b>  | N/A | <b>14.4 Packing group</b>                | N/A |
| <b>14.5 Environmental hazards</b>   | N/A | <b>14.6 Special precautions for user</b> | N/A |
| <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | N/A | <b>Additional information</b>            | N/A |

**SECTION 15 - REGULATORY INFORMATION**

|  |  |
|--|--|
| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> | SARA Section 311/312 – delayed (chronic) health hazard |
| <b>15.2 Chemical safety assessment</b>   | No data available                                      |

### SECTION 16 - OTHER INFORMATION

|                                      |   |  |
|--------------------------------------|---|--|
| <b>Hazard Statement Index</b>        | H314 = Causes skin burns and eye damage<br>H318 = Causes serious eye damage   | H360 = May damage fertility or the unborn child<br>H402 = Harmful to aquatic life  |
| <b>Precautionary Statement Index</b> | P201 = Obtain special instructions before use.<br>P202 = Do not handle until all safety precautions have been read and understood.<br>P280 = Wear protective gloves, eye protection   | P308+P313 = IF exposed or concerned: Get medical advice/attention.<br>P405 = Store locked up.<br>P501 = Dispose of contents/container to comply with local, state and federal regulations. |
| <b>Restrictions</b>                  |   |  |
| <b>Revision Date</b>                 | 26-07-18  |  |
| <b>Disclaimer</b>                    | To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. |  |