

## Trace-it Manganese N™

### Section 1: Identification of the Substance or Mixture and of the Supplier

|                             |   |
|-----------------------------|---|
| <b>Product name:</b>        | Trace-it Manganese N™   |
| <b>Recommended use:</b>     | Fertiliser (Manganese supplement)   |
| <b>Company details:</b>     | Grochem (AgriNova New Zealand Limited)<br>15 Sunlight Grove<br>Porirua<br>New Zealand   |
| <b>Telephone:</b>           | +64 4 237 0905  |
| <b>Email:</b>               | grochem@grochem.co.nz   |
| <b>Emergency telephone:</b> | New Zealand<br>0800 CHEMCALL – 24 hours<br>(0800 243 6225)<br><br>Australia 1800 127 406<br>Other locations +64 4 917 9888<br><br>or<br>The National Poisons Centre<br>0800 POISON (0800 764 766) |
| <b>Date of preparation:</b> | 13 June 2017  |

### Section 2: Hazards Identification

|   |  |
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| <b>Hazard classification (Transport):</b> | Dangerous Goods Class 5.1, Packing Group III   |
| <b>Hazardous substances (HSNO):</b>       | 5.1.1C (WARNING: May intensify fire; oxidiser)<br>8.2C (DANGER: Causes severe skin burns and eye damage)<br>8.3A (DANGER: Causes serious eye damage)<br>9.1B (Toxic to aquatic life with long lasting effects) |



### Section 3: Composition/Information on Ingredients

**Classification & type: Pure substance**

| Material                 | CAS No.    | Proportion (%w) |
|--------------------------|------------|-----------------|
| Manganese Nitrate        | 10377-66-9 | 45-55%          |
| Non-Hazardous components |            | to 100%         |

### Section 4: First Aid Measures

|                                     |  |
|-------------------------------------|--|
| <b>Symptoms of exposure:</b>        | No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms that may arise if the product is mishandled are:  |
| If Swallowed                        | Will cause irritation and burns of the mouth, throat, oesophagus and other tissues of the digestive system immediately upon contact. Overexposure symptoms include: nausea, abdominal pain, vomiting and diarrhoea. Severe ingestion overexposures can result in convulsions and collapse. The nitrate component of this product may damage the oxygen transport system of the blood. Severe ingestion exposures can be fatal. |
| If in Eyes                          | Will cause serious eye damage.   |
| If on Skin                          | Will cause severe skin burns and possible tissue damage.   |
| If Inhaled                          | Inhalation of vapours, mists or sprays of this product may irritate the nose, throat and lungs. Symptoms may include sneezing, coughing and difficulty breathing. Severe overexposures can result in damage to respiratory system tissues.   |
| <b>First aid actions:</b>           | Immediately call a POISON CENTRE or doctor/physician.  |
| If Swallowed                        | Rinse mouth. Do NOT induce vomiting.   |
| If in Eyes                          | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.   |
| If on Skin                          | Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  |
| If Inhaled                          | Remove to fresh air and keep at rest in a position comfortable for breathing.  |
| <b>Workplace facilities:</b>        | Emergency shower and eyewash.  |
| <b>Notes for medical personnel:</b> | Treat symptomatically.   |

### Section 5: Fire Fighting Measures

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| <b>Type of Hazard:</b>                    | This product is an aqueous mixture which will not burn. It is an oxidiser in its dry form which may cause spontaneous ignition of combustible materials. |
| <b>HAZCHEM code:</b>                      | 2W   |
| <b>Combustion products:</b>               | Decomposition of this product may produce acrid vapours, manganese compounds and oxides of nitrogen.   |
| <b>Extinguishing media &amp; methods:</b> | Use flooding quantities of water. Do not use dry chemicals or foam. Dam fire control water for later disposal.   |
| <b>Recommended protective clothing:</b>   | Liquid tight chemical protective suit with BA.   |

## Section 6: Accidental Release Measures

|                                  |  |
|----------------------------------|--|
| <b>Personal protection:</b>      | See Section 8.3 for appropriate PPE.   |
| <b>Containment and clean up:</b> | <p>Keep combustibles away from spilled material.</p> <p>Do not touch spilled material or damaged containers unless wearing appropriate protective clothing.</p> <p>Use water spray to knock down vapours or divert vapour clouds.</p> <p>Prevent entry into waterways, drains or confined areas.</p> <p>Prevent exposure to heat.</p> <p>Absorb spill with inert material and place in a loosely covered container for later disposal.</p> |
| <b>Special requirements:</b>     | See Section 13 for instructions for the disposal of waste/contaminated material.   |

## Section 7: Handling and Storage

|                      |  |
|----------------------|--|
| <b>Subsection 1:</b> | <b>Handling</b>  |
| Handling practices   | <p>Keep out of reach of children.</p> <p>Wear appropriate PPE as detailed in Section 8.3.</p> <p>Do not let material get into eyes, skin or on clothing. Avoid breathing vapours or mists.</p> <p>Wash thoroughly after handling. Do not eat, drink or smoke when handling this material.</p> <p>Use product with adequate ventilation. Launder work clothes frequently.</p> |
| <b>Subsection 2:</b> | <b>Storage</b>   |
| Site requirements    | <p>Store locked up in a cool dry place away from direct sunlight, sources of intense heat or where freezing is possible. Store away from foodstuffs, clothing and combustibles.</p> <p>Keep container tightly closed when not in use.</p> <p>Sites holding more than 100L or more of this product must hold a Hazardous Substance Test Certificate.</p>                      |
| Packaging            | <p>Must be child resistant in quantities of less than 2.5L.</p> <p>Packaging must not leak, it must maintain its ability to retain its contents and does not react with a substance in any way as to weaken the package.</p> <p>Packaging must, when closed, exclude any other substance that may cause the substance to spontaneously combust.</p>                          |

## Section 8: Exposure Controls/Personal Protection

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|-------------------------------------|---|
| <b>Subsection 1:</b>                | <b>Workplace Exposure Guidelines (may also be considered in section 2)</b>  |
| Workplace exposure standards        | <p>Manganese Nitrate (10377-66-9)</p> <p>OSHA: 1 mg/m<sup>3</sup> TWA (fume)</p> <p>OSHA: 5 mg/m<sup>3</sup> Ceiling (fume) (related to Manganese)</p>  |
| <b>Subsection 2:</b>                | <b>Engineering Controls</b>   |
| Exposure control measures           | Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.   |
| <b>Subsection 3:</b>                | <b>Personal Protective Equipment (PPE)</b>  |
| Detail specifications for equipment | <p>Wear impermeable gloves and apron.</p> <p>Wear safety glasses; chemical goggles (if splashing is possible).</p> <p>Respiratory protection is not normally required for ambient air concentrations not exceeding the exposure limit. When respiratory equipment is required, wear an approved self-contained breathing apparatus with full-face piece operated in a positive pressure mode.</p> |
| General Hygiene                     | Wash thoroughly after handling.   |

## Section 9: Physical and Chemical Properties

|                                |                          |                              |                 |
|--------------------------------|--------------------------|------------------------------|-----------------|
| <b>Appearance</b>              | Light red or rosy liquid | <b>pH</b>                    | 1-2             |
| <b>Odour</b>                   | Odourless                | <b>Boiling point (degC)</b>  | >100°C          |
| <b>Specific gravity (kg/L)</b> | ~1.47                    | <b>Freezing point (degC)</b> | Not Established |
| <b>Solubility</b>              | Soluble in water         | <b>Flashpoint (degC)</b>     | N/A             |

## Section 10: Stability and Reactivity

|  |   |
|--|---|
| <b>Stability of substance:</b>           | Stable under normal conditions.   |
| <b>Conditions to avoid:</b>              | Avoid exposure to extreme temperatures, contact with incompatible chemicals and with combustible materials. |
| <b>Material to avoid:</b>                | Flammable and combustible materials, strong reducing agents, finely powdered metals and strong acids.       |
| <b>Hazardous decomposition products:</b> | Manganese compounds and nitrogen oxides.  |
| <b>Hazardous polymerization:</b>         | Will not occur.   |

## Section 11: Toxicological Information

|                                 |  |
|---------------------------------|--|
| <b>Data and interpretation:</b> | <p>Manganese Nitrate (10377-66-9)<br/>           Oral LD50 Rat: 9g/kg (related to manganese)</p> <p>Chronic overexposure to manganese compounds may result in CNS effects such as weakness, sleepiness, emotional instability and spastic gait. These effects can be permanent. Can also cause 'manganism'; characterised by fatigue, irritability, headaches and asthenia. Symptoms are reversible when exposure stops. Some permanent brain damage can occur, resembling Parkinson's disease. High or repeated exposures may damage the kidneys or liver.</p> <p>See Section 2 for general hazard information.</p> |
|---------------------------------|--|

## Section 12: Ecological Information

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| <b>Potential environmental interactions:</b> | Toxic to aquatic life with long lasting effects. |
| Data organisation                            | No data available.                               |

## Section 13: Disposal Considerations

|                            |   |
|----------------------------|---|
| <b>Product disposal:</b>   | <p>Dispose of only by using in accordance with the label instructions or at an approved landfill, provided that:</p> <p>The substance will not at any time come into contact with an explosive or flammable substance (HSNO Class 1,2,3 or 4); and</p> <p>There is no ignition source in the vicinity of the disposal site that is capable of igniting the substance; and</p> <p>The concentration of the substance in any discharge from the landfill does not, after reasonable mixing, exceed any tolerable exposure limit and/or environmental exposure limit set for the substance or any of its components.</p> |
| <b>Container disposal:</b> | Render packaging incapable of holding product and dispose of at an approved landfill.   |

## Section 14: Transport Information

|                                      |  |
|--------------------------------------|--|
| <b>UN Number</b>                     | 3098   |
| <b>DG Class and Subsidiary Group</b> | 5.1 (8)  |
| <b>Proper Shipping Name</b>          | Oxidising Liquid, Corrosive, N.O.S. (Manganese Nitrate)  |
| <b>Packing group</b>                 | III  |
| <b>HAZCHEM Code</b>                  | 2W   |
| <b>Special precautions</b>           | <p>Do not carry more than 700ml on a passenger service vehicle.</p> <p>Do not transport on same vehicle as Class 1 (explosive), 2.1 (flammable gas), 2.3 (toxic gas), 3 (flammable liquid), 4 (flammable solid), 5.2 (organic peroxides), 6.2 (infectious substances), 8 (corrosive).</p> <p>Use a segregation device (goods of packing group II or III) if transporting with Class 3 (flammable liquid), 4 (flammable solid), 5.2 (organic peroxide), 6.1 (toxic), 6.2 (infectious substance), 7 (radioactive), or 8 (corrosive).</p> |

## Section 15: Regulatory Information

|                                   |   |
|-----------------------------------|---|
| <b>Regulatory status:</b>         | This substance is approved pursuant to the HSNO Act 1996, under the Oxidising [5.1.1], Corrosive Substances Group Standard. HSR 002632. |
| <b>HSNo controls:</b>             | Trigger quantities for this substance   |
| Approved Handler Test Certificate | 1000L   |
| SDS must be available for         | Any quantity  |
| Signage                           | 1000L   |
| Emergency plan                    | 1000L   |
| Bunding                           | 1000L   |
| Location Certificates:            | 100L use/manufacture, 1000L storage   |
| Fire extinguishers:               | 2 for >500L   |

## Section 16: Other Information

|                                |   |
|--------------------------------|---|
| <b>Revision due:</b>           | 12 June 2022.   |
| <b>Additional information:</b> | Directions for use are found on the product label.                              |
| <b>Glossary:</b>               |   |
| CAS                            | Chemical Abstract Services Number, used to uniquely identify chemical compounds |
| CNS                            | Central Nervous System  |
| HSNO                           | Hazardous Substances and New Organisms (legislation 1996)                       |
| LD50                           | Lethal Dose to kill 50% of test animals/organisms                               |
| OSHA                           | Occupational Safety and Health Administration                                   |
| PPE                            | Personal Protective Equipment   |
| TWA                            | Time Weighted Average   |

This SDS summarises our best knowledge of the health and safety hazard information available for this product and how to safely handle and use it. Since the use of this information and the conditions of the use of this product are not under the control of GroChem, it is the user's responsibility to determine conditions of safe use of the product.