# SAFETY DATA SHEET

## Section 1. Identification of the material and the supplier

| | |
|---|---|
| Product: | **NovaTec Classic 12-8-16** |
| Product Use: | Fertiliser |
| Restriction of Use: | Refer to Section 15 |
| New Zealand Supplier: | Horticentre Ltd |
| Address: | 10 Firth Street<br>Drury, 2113 |
| Telephone: | +64 9 294 8453 |
| Fax Number: | +64 9 294 7272 |
| Emergency Telephone: | 0800 764 766 (National Poison Centre) |
| Date of SDS Preparation: | 24 March 2022 |

## Section 2. Hazards Identification

**Classified as NOT hazardous according to Regulation (EC) No. 1272/2008 which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Classification) Notice 2020.**

## Section 3. Composition / Information on Ingredients

| Ingredients | Wt% | CAS NUMBER. |
|---|---|---|
| ammonium nitrate | ≥10- <45 | 6484-52-2 |
| Borates, tetra sodium salts, pentahydrate | ≤0.2 | 12179-04-3 |

## Section 4. First Aid Measures

Routes of Exposure:

| | |
|---|---|
| If in Eyes | Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice. |
| If on Skin | Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. |
| If Swallowed | Clean mouth with water and drink afterwards plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell. |
| If Inhaled | Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if |

breathing becomes difficult. In case of lung irritation, first treatment with dexametason aerosol (spray).

**Most important symptoms and effects, both acute and delayed**

Symptoms: Ingestion may provoke the following symptoms: Methaemoglobinemia
Risk: Later control for pneumonia and lung oedema

Notes to Doctor: Treat symptomatically. There is no specific antidote available.

## Section 5. Fire Fighting Measures

| | |
|---|---|
| **Hazard Type** | Non-combustible substance with oxidizing ingredient |
| **Hazards from combustion products** | At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia |
| **Suitable Extinguishing media** | Water<br>Not suitable: Foam, Dry chemical, Carbon dioxide ($CO_2$) and Sand |
| **Precautions for firefighters and special protective clothing** | Self-contained breathing apparatus. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| **HAZCHEM CODE** | **None Allocated** |

## Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel. Avoid dust formation. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Use mechanical handling equipment for cleanup.

Do not empty into drains. Retain and dispose of contaminated wash water.

## Section 7. Handling and Storage

**Precautions for Handling:**

- Always read the label and product information before use.
- The product is not flammable.
- Keep away from heat and sources of ignition.
- Keep away from combustible materials.
- Protect from contamination.
- Keep away from direct sunlight.
- Protect against heat.
- Protect from moisture.
- At the end of the shift the skin should be cleaned and skin care agents applied.

**Precautions for Storage:**

- Do not store together with oxidizing and self-igniting products.
- Keep away from direct sunlight.
- Protect from contamination.
- Protect from moisture.
- When stored loose do not mix with other fertilizers.
- Keep in a dry place.
- Protect against humidity (product is hygroscopic and tends to cake or disintegrate).

## Section 8 Exposure Controls / Personal Protection

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

| | **TWA** | **STEL** |
|---|---|---|

| Substance | ppm | mg/m³ | ppm | mg/m³ |
|---|---|---|---|---|

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2020 12TH EDITION.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| Ammonia Nitrate | Workers | Inhalation | Long-term systemic effects | 36 mg/m³ |
| | Workers | Skin Contact | Long-term systemic effects | 5.12 mg/kg bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 2.56 mg/kg bw/day |
| | Consumers | Inhalation | Long-term systemic effects | 8.9 mg/m³ |
| | Comsumers | Skin contact, inhalation | Long-term systemic effects | 2.56 mg/kg bw/day |
| Borates, tetra sodium salts, pentahydrate | Workers | Inhalation | Long-term exposure | 5.7 mg/m³ |
| | Consumers | Inhalation | Long-term exposure | 3.4 mg/m³ |
| | Workers | Skin Contact | Long-term exposure | 316.4 mg/kg bw/day |
| | Consumers | Skin Contact | Long-term exposure | 159,5 mg/kg bw/day |
| | Consumers | Ingestion | Long-term exposure<br>Short-term exposure | 8.79 mg/kg bw/day |

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

| Substance Name | Environmental Compartment | Value |
|---|---|---|
| Ammonia Nitrate | Sewage treatment plant | 18 mg/l |
| Borates, tetra sodium salts, pentahydrate | Fresh water | 2.9 mg/l |
| | Marine water | 2.9 mg/l |
| | Soil | 5.7 mg/kg |
| | Intermittent use/release | 13.7 mg/l |
| | Sewage treatment plant | 10 mg/l |

**Engineering Controls**

Ensure adequate ventilation is available

**Personal Protection Equipment**

| | |
|---|---|
| **Eyes** | Wear goggles with side shields. Avoid wearing contact lenses. |
| **Hands and Skin** | Wear gloves. |
| **Respiratory** | Breathing apparatus only if aerosol or dust is formed. Respirator with a |

| | |
|---|---|
| | particle filter (EN 143) - P1 filter |

## Section 9 Physical and Chemical Properties

| | |
|---|---|
| **Appearance** | Various colours - Granular |
| **Odour** | Very Faint |
| **Odour Threshold** | Not available |
| **pH** | ca. 5 – 5.5Concentration: 100 g/l (20 °C) |
| **Boiling Point** | Not available |
| **Melting Point** | Not available |
| **Freezing Point** | Not available |
| **Flash Point** | Not available |
| **Flammability** | The product is not flammable. |
| **Upper and Lower Explosive Limits** | Not available |
| **Vapour Pressure** | Not available |
| **Vapour Density** | Not available |
| **Bulk Density** | ca. 1.150 kg/$m^3$ |
| **Solubilities** | Soluble |
| **Partition Coefficient:** | Not available |
| **Auto-ignition Temperature** | Not available |
| **Decomposition Temperature** | > 130 °C<br>To avoid thermal decomposition, do not overheat. |
| **Kinematic Viscosity** | Not available |
| **Particle Characteristics** | Not applicable |

## Section 10. Stability and Reactivity

| | |
|---|---|
| **Stability of Substance** | This product is stable under normal conditions. |
| **Hazardous reactions** | Evolution of ammonia under influence of alkalis. |
| **Conditions to Avoid** | Protect from frost, heat and sunlight. Avoid moisture. |
| **Incompatible Materials** | Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds. |
| **Hazardous Decomposition Products** | Nitrogen oxides (NOx) and ammonia. Evolution of ammonia under influence of alkalies. |

## Section 11 Toxicological Information

**Acute Effects:**

| | |
|---|---|
| **Swallowed** | Not applicable. Product= LD50 (Rat) = >2000mg/kg |
| **Dermal** | Not applicable. |
| **Inhalation** | Not applicable. |
| **Eye** | Not applicable. |
| **Skin** | Not applicable. |

**Chronic Effects:**

| | |
|---|---|
| **Carcinogenicity** | Not applicable. |
| **Reproductive Toxicity** | Not applicable. |
| **Germ Cell Mutagenicity** | Not applicable. |
| **Aspiration** | Not applicable. |
| **STOT/SE** | Not applicable. |
| **STOT/RE** | Not applicable. |

**Components:**

**ammonium nitrate:**

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : > 88,8 mg/l
Method: No information available.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

**Borates, tetra sodium salts, pentahydrate:**

Acute oral toxicity : LD50 (Rat): 3.200 - 3.400 mg/kg
Method: No information available

Acute inhalation toxicity : LC50 (Rat): > 2,0 mg/l
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: No information available

## Section 12. Ecotoxicological Information

**Product:**

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 422 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 555 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae : No observed effect concentration (Desmodesmus subspicatus (green algae)): 83 mg/l
Exposure time: 168 h
Test Type: other
Method: No data available

Toxicity to bacteria : EC20 (activated sludge): ca. > 100 mg/l
Exposure time: 0,5 h
Test Type: other
Method: No data available

**Components:**

**ammonium nitrate:**

Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 490 mg/l
Exposure time: 48 h

LC50 : 490 mg/l

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l
Exposure time: 10 d

**Borates, tetra sodium salts pentahydrate:**

Toxicity to fish : LC50 (Fish): 74 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 242 mg/l
Exposure time: 24 h

Toxicity to algae : EC10 (Scenedesmus subspicatus): 24 mg/l

| | |
|---|---|
| **Persistence and degradability** | The product works in the soil as fertilizer and is diminished in a few weeks. The methods for determining the biological degradability are not applicable to inorganic substances. |
| **Bioaccumulation** | Bioaccumulation is unlikely.<br>Partition coefficient: n : log Pow: -3,1<br>octanol/water |
| **Mobility in Soil** | Groundwater contamination is unlikely. |
| **Other adverse effects** | Disposal via sewage water treatment plants may cause impairment of the nitrification activity of the activated sludge.<br>There is a high probability that the product is acute not harmful to aquatic organisms.<br>Additional ecological information<br>The product has not been tested. The information is derived from the properties of the individual components.<br>At higher pH values, which can be found in natural surface waters, an increase of toxic effects on aquatic organsims may be expected. |

## Section 13. Disposal Considerations

**Disposal Method:** Contaminated packaging should be emptied as far as possible then it can be passed on for recycling after being thoroughly cleaned.

**Disposal methods to avoid:** None known.

## Section 14 Transport Information

**This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**

## Section 15 Regulatory Information

**Classified as NOT hazardous according to Regulation (EC) No. 1272/2008 which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Classification) Notice 2020.**

## Section 16 Other Information

Glossary

| | |
|---|---|
| Cat | Category |
| $EC_{50}$ | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| $LC_{50}$ | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| $LD_{50}$ | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| OSHA | American Occupational Safety and Health Administration. |
| TEL | Tolerable Exposure Limit. |
| TLV | Threshold Limit Value-an exposure limit set by responsible authority. |
| UEL | Upper Explosive Level |
| WES | Workplace Exposure Limit |

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).

4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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