1. Identification

GHS Product Identifier
SELCOTE® ULTRA

Product Code
04571 EU

Product Type
Nutritional supplement

Company Name
Nufarm NZ

Address
6 Manu Street, Otahuhu
Auckland 2024 New Zealand

Telephone/Fax Number
Tel: 0-9-270 4150
Fax: 0-9-270 4159

Emergency phone number
0800 651 911

Email
info@nz.nufarm.com

Recommended use of the chemical and restrictions on use
To correct livestock selenium deficiency. Apply to pasture or fodder crops.

Other Information
This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. Hazard Identification

Signal Word (s)
WARNING

Hazard Statement (s)
Harmful if swallowed.
Suspected of causing genetic defects ....
May cause damage to organs ... through prolonged or repeated exposure ....
Harmful to aquatic life with long lasting effects.
Harmful to terrestrial vertebrates.

Pictogram (s)
Exclamation mark, Health hazard, Environment

Other Information
6.1D acute toxicant, 6.6B mutagen, 6.9B target organ toxicant, 9.1C aquatic toxicant, 9.2C soil toxicant, 9.3C terrestrial vertebrate toxicant,

TOXICITY
Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.
Suspected of causing heritable mutations at high doses. May cause organ damage from repeated oral exposure at high doses.

ECOTOXIC
Harmful to aquatic life with long-lasting effects.
Harmful to the soil environment at high doses.
Harmful to terrestrial vertebrates.

3. Composition/information on ingredients

Chemical Characterization
Solid

Information on Composition
Selcote Ultra contains 10g/kg selenium as sodium and barium selenate (90% minimum) and sodium and barium selenite (10% maximum).

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients determined to be non-hazardous</td>
<td>-</td>
<td>990g/kg</td>
</tr>
<tr>
<td>Selenium (as sodium and barium selenate)</td>
<td>13410-01-0 &amp; 7787-41-9</td>
<td>10g/kg</td>
</tr>
<tr>
<td>Selenium (as sodium and barium selenite)</td>
<td>10102-18-8 &amp; 13718-59-7</td>
<td>1g/kg max</td>
</tr>
</tbody>
</table>
4. First-aid measures

**First Aid Measures**
For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.

**Inhalation**
Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.

**Ingestion**
Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.

**Skin**
Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.

**Eye contact**
Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.

**Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.**

**First Aid Facilities**
Treat symptomatically.

**Advice to Doctor**

5. Fire-fighting measures

**Suitable extinguishing media**
Carbon dioxide to exclude air.

**Hazard from Combustion Products**
May emit toxic fumes of selenium dioxide if involved in fires or exposed to extreme heat.

**Special Protective Equipment for fire fighters**
Full protective clothing and self-contained breathing apparatus.

**Specific Methods**
Keep up wind. Do not allow washings to reach sewage or effluent systems.

**Other Information**
Location Certificate: Not applicable
Hazardous Atmosphere Zone: Not applicable
Number of Fire Extinguishers: Not applicable

6. Accidental release measures

**Spills & Disposal**
Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.

**Personal Protection**
For appropriate personal protective equipment (PPE), refer Section 8.

**Environmental Precautions**
Prevent from entering drains, waterways or sewers.

7. Handling and storage

**Precautions for Safe Handling**
Avoid skin and eye contact and inhalation of dust.
APPROVED HANDLER: Not applicable
RECORD KEEPING: Not applicable

**Conditions for safe storage, including any incompatibilities**
Keep out of reach of children.
Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs. Storage must be in accordance with NZS 8409 Management of Agrichemicals.
Stores containing 1,000kg of SELCOTE ULTRA are subject to signage, and more than 1,000kg require emergency response plans.

**Other Information**
Always read the label and any attached leaflet before use.
Aggregate Storage Volume Thresholds:
When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

8. Exposure controls/personal protection
Safety Data Sheet

Infosafe No™ 3NUPR  Issue Date :March 2013  ISSUED byNUFARMNZ

Product Name SELCOTE® ULTRA

<table>
<thead>
<tr>
<th>Occupational exposure limit values</th>
<th>No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. WES TWA for selenium and compounds, as Se = 0.1 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate engineering controls</td>
<td>Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Avoid generating and inhaling dusty. Use with local exhaust ventilation or while wearing a dust mask. Keep containers closed when not in use.</td>
</tr>
<tr>
<td>Personal Protective Equipment</td>
<td>When handling the product wear safety goggles, impervious gloves, cotton overalls buttoned to the neck and wrist, and boots.</td>
</tr>
<tr>
<td>Hygiene Measures</td>
<td>Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.</td>
</tr>
</tbody>
</table>

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Green granules</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Sparingly soluble in water</td>
</tr>
<tr>
<td>Volatile Component</td>
<td>Nil</td>
</tr>
<tr>
<td>Density</td>
<td>154g/L (packed)</td>
</tr>
<tr>
<td>Other Information</td>
<td>(GR) Granule</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

| Chemical Stability | Stable at room temperature. Incompatible with strong oxidizing agents, sparks and open flames. |
| Hazardous Polymerisation | Hazardous polymerisation will not occur. |

11. Toxicological Information

| Toxicity Information | No specific toxicological data is available for this product. Data below is for constituents. Sodium selenate is rapidly absorbed into the body, either by swallowing or breathing in dust. |
| Acute Toxicity - Oral | LD50 (rat) 1.6 mg/kg for sodium selenate  
LD50 (rat) 7 mg/kg for barium selenate  
LD50 (rabbit) 2.19 mg/kg for sodium selenite |
| Ingestion | Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain. Large amounts may cause muscle spasms, coma and death from respiratory failure. |
| Inhalation | Inhalation of dust may result in respiratory irritation. Effects may include those described for 'swallowing'. Can cause possible allergic reactions, producing asthma like symptoms. |
| Skin | Contact with skin may result in irritation. |
| Eye | May be an eye irritant. |
| Carcinogenicity | Objective reviewers of literature have concluded that selenium is not carcinogenic, albeit it may even play a protective role against carcinogenicity in small doses. IARC have classified Selenium and Selenium compounds as Group 3 - not classifiable as to their carcinogenicity to humans. |
| Health Hazard | No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet and the product label. |
| Chronic Effects | Repeated or prolonged exposure to selenate compounds may cause bronchial irritation, gastro-intestinal hypermotility resulting in diarrhoea, loss of weight and liver changes. |
| Subchronic/Chronic Toxicity | Rats fed a dietary level of 100ppm, ate little food and all died in 8-16 days. Those receiving 50ppm died in 10-97 days. A dietary level of 15ppm was tolerated for 72 days or more but food intake was about half of normal. All rats survived 7.5ppm (0.37mg/kg) for 6 months, and their growth was normal. |
| Human Effects | A woman who had ingested 53mg/kg of sodium selenate experienced gastrointestinal hypermotility with diarrhoea. Liver function tests were abnormal. |

12. Ecological information

Print Date: 16/10/2015
<table>
<thead>
<tr>
<th><strong>Persistence and degradability</strong></th>
<th>Not readily degradable (sodium selenate)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioaccumulative Potential</strong></td>
<td>Daphnia BCF value = 3650 for sodium selenate</td>
</tr>
<tr>
<td><strong>Basis for Assessment</strong></td>
<td>Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.</td>
</tr>
<tr>
<td><strong>Acute Toxicity - Fish</strong></td>
<td>LC₅₀ (96h) for Fathead minnow is 0.69 mg/l for sodium selenate</td>
</tr>
<tr>
<td><strong>Acute Toxicity - Daphnia</strong></td>
<td>LC₅₀ (96h) Daphnia magna 0.58mg/L for sodium selenate</td>
</tr>
<tr>
<td><strong>Acute Toxicity - Algae</strong></td>
<td>EC₅₀ (96h) for green algae 0.2 mg/l for sodium selenate</td>
</tr>
</tbody>
</table>

### 13. Disposal considerations

**Product Disposal**
Dispose of product only by using according to the label, or at an approved landfill.

**Container Disposal**
Ensure container is completely empty. Burn in an appropriate incinerator if circumstances, such as wind direction, permit. Otherwise crush and bury in an appropriate landfill.

### 14. Transport information

**Transport Information**
It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**Other Information**
Do not carry this product on a passenger service vehicle.

### 15. Regulatory information

**National and or International Regulatory Information**
This product does not require registration under the ACVM Act.

Approved pursuant to the HSNO Act 1996, Approval Code HSR002521

See www.epa.govt.nz for approval controls.

**Packaging & Labelling**
HARMFUL - keep out of reach of children

**Hazard Rating Systems**
NFPA/HMIS: 2-0-1

**Hazard Category**
HARMFUL - Keep out of reach of children

### 16. Other Information

**Date of preparation or last revision of SDS**
New - GHS details added for EU.

**Contact Person/Point**
IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24Hr Tollfree Emergency No: 0800 651 911
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

**Revisions Highlighted**
This SDS was reviewed. GHS details were added.

...End Of MSDS...