



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Selenium Chip**
Product Use: Fertiliser nutrient trace element (Se) additive.
Restriction of Use: Refer to Section 15

Australian Supplier: **DLF Seeds**
13 Felstead Drive
Truganina
Victoria, 3029
Australia

Tel: 1800 619 910
Australian Emergency No **13 11 26 (National Poison Centre)**

Date of SDS Preparation: 31 March 2025

Section 2. Hazards Identification

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled 6 Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). See also section 15 of this SDS.

Pictograms



Signal Word: **WARNING**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Acute inhalation toxicity Cat. 4	H332	Harmful if inhaled.
Germ cell mutagenicity Cat. 2	H341	Suspected of causing genetic defects.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 3	H412	Harmful to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash hands thoroughly after handling.

P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective clothing [as detailed in SDS Section 8].

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Storage Code	Storage Statement
P405	Store locked up.
	Store in original closed pack, in a dry ventilated place away from moisture and feedstuffs.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Sodium Selenate Anhydrous	2 - 2.5	13410-01-0
Talc	2-3	14807-96-6
Non-hazardous ingredients	To balance	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice.
If on Skin	Remove contaminated clothing. Neutralise with 10% Sodium Thiosulphate solution then wash affected area thoroughly with soap and water. If a large area is affected seek medical assistance.
If Swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
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. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Toxic if swallowed. Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain. Large amounts may cause muscle spasms, coma and death from respiratory failure.

Inhalation: Not applicable.

Skin:	Not applicable.
Eye:	Not applicable.
Chronic:	Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable solid
Hazards from combustion products	May emit toxic fumes of selenium dioxide if involved in fires or exposed to extreme heat.
Suitable Extinguishing media	Carbon dioxide to exclude air
Precautions for firefighters and special protective clothing	Breathing apparatus plus full protective clothing. Keep up wind. Do not allow washings to reach sewage or effluent systems.
HAZCHEM CODE	None Allocated

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel. Prevent product from entering the sewers, waterways, or low areas. Contain spill and sweep up. Dispose of waste according to the applicable local and national regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions. Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear protective clothing
- Avoid release to the environment.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Keep out of reach of children.
- Store in the closed, original container in a dry, well ventilated area, as cool as possible out of direct sunlight.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Selenium compounds (as Se) excluding hydrogen selenide [Aus]	-	0.1	-	-
Talc (containing no asbestos fibres) [14807-96-6]	-	2.5		

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

Product Name: Selenium Chip
Date of SDS: 31 March 2025

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

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. AUST: Workplace Exposure Standards for Airborne Contaminants Oct 2022

Engineering Controls

Handle in well-ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid generating and inhalation of dust. Keep containers closed when not in use.

Personal Protection Equipment



Eyes	Wear protective goggles.
Hands and skin	Wear impervious gloves, boots and overalls.
Respiratory	Wear dust masks.

Section 9 Physical and Chemical Properties

Appearance	Granules
Colour	Green
Odour	Not available
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	Not soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Conditions to Avoid	Avoid contact with oxidising agents.
Incompatible Materials	Avoid contact with oxidising agents.
Hazardous Decomposition Products	May emit toxic fumes of selenium dioxide if involved in fires or exposed to extreme heat on combustion.

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Harmful if swallowed. Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain. Large amounts may cause muscle spasms, coma and death from respiratory failure.
Dermal	Not applicable.
Inhalation	Harmful if inhaled.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Suspected of causing genetic defects.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Repeated or prolonged exposure to selenate compounds may cause bronchial irritation, gastro-intestinal hyper motility resulting in diarrhoea, loss of weight and liver changes.

Acute Toxicity

Chemical Name	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
Sodium Selenate (13410-01-0)	25 mg/kg (Rat)	-	0.05 mg/L

ATE mixture

Chemical Name	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
Selenium Chip (1% as Se)	1078 mg/kg (Rat)	-	2.16 mg/L

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 six months, and their growth was normal.

Section 12. Ecotoxicological Information

Harmful to aquatic life with long lasting effects.

Persistence and degradability	Not readily degradable (sodium selenate)
Bioaccumulation	Unlikely to bio-accumulate.
Mobility in Soil	No data available
Other adverse effects	No data available

Acute Toxicity – Fish: LC50 (96h) for Fathead minnow is 0.69 mg/L for sodium selenate.
 Acute Toxicity – Daphnia: LC50 (96h) Daphnia magna 0.58mg /L for sodium selenate
 LC50 (48h) Daphnia magna 0.75mg/L (adult), 0.55mg/L (juvenile) for sodium selenate.
 Acute Toxicity Algae: EC50 (96h) for green algae 0.2mg/L for sodium selenate.
 Bio accumulative Potential Daphnia BCF value = 3650 for sodium selenate.

Section 13. Disposal Considerations

Disposal Method:

Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Precautions or methods to avoid:

Avoid contamination of any water supply with chemical or empty container.

Section 14 Transport Information

This product is NOT classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Section 15 Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled 6 Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

SELENIUM:

- (a) in preparations containing 2.5% or less of selenium when packed and labelled:
 - (i) for the blueing of gun barrels; or
 - (ii) for photographic purposes; or
 - (iii) for the colouring of lead or lead alloys; or
- b) in coated granules containing 1% or less of selenium for application to pasture **except** in fertilisers containing 200 g/tonne or less of selenium; or
- (c) for the treatment of animals:
 - (i) in a drench, injection, paste, stocklick, vaccine or horse feed supplement containing 0.5% or less of selenium; or
 - (ii) in animal feed premixes containing 2% or less of selenium for the preparation of feeds containing 1 g/tonne or less of selenium; or
 - (iii) in controlled release bolus preparations containing 25 mg or less of selenium with a release rate not greater than 0.25 mg/day; or
 - (iv) as barium selenate in preparations for injection containing 5% or less of selenium.

Section 16 Other Information

Glossary

	Category
Cat	
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
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.

References:

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. Globally Harmonised System of classification and labelling of chemicals.

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the Australian distributor, if further information is required.

Issue Date: 31 March 2025

Review Date: 31 March 2030