

Section 1 - Identification of The Material and Supplier

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Chemical nature: Tebuthiuron is a urea derivative.
Trade Name: **FarmaLinx ClearView 200 GR Herbicide**
Product Code: 69043
Product Use: Agricultural herbicide for use as described on the product label.
Creation Date: **August, 2013**
This version issued: **July, 2020** and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Xi, Irritating. N, Dangerous to the environment. Hazardous according to the criteria of SWA.

Not subject to the ADG Code when transported in Australia by Road or Rail (refer to SP AU01). However if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See details below and in Section 14 of this MSDS. However, this is a C1 Combustible Liquid so must be stored and handled as specified in AS 1940 "The storage and handling of flammable and combustible liquids."

Risk Phrases: R22, R43, R36/38, R50/53. Harmful if swallowed. May cause sensitisation by skin contact. Irritating to eyes and skin. Very toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Safety Phrases: S2, S20, S22, S26, S28, S36, S61, S24/25. Keep out of reach of children. When using, do not eat or drink. Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes.

SUSMP Classification: S6

ADG Classification: Class 9: Miscellaneous dangerous goods.

UN Number: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.



GHS Signal word: WARNING

HAZARD STATEMENT:

H302: Harmful if swallowed.

H410: Very toxic to aquatic life with long lasting effects.

PREVENTION

P264: Wash contacted areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

RESPONSE

P330: Rinse mouth.

P353: Rinse skin or shower with water.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P332+P313: If skin irritation occurs: Get medical advice.

P337+P313: If eye irritation persists: Get medical advice.

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

STORAGE

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

SAFETY DATA SHEET

Emergency Overview

Physical Description & Colour: Grey pellets.

Odour: No data.

Major Health Hazards: Tebuthiuron has moderate to low toxicity in experimental animals when ingested and by skin exposure. Tebuthiuron did not induce sensitization or allergic reactions when tested on the skin of guinea pigs. Application to the eyes of rabbits produced short-term conjunctivitis, inflammation of the lining of the eye, but no irritation to other eye parts, the cornea, or the iris. The inhalation by animals of 3.7mg/L technical Tebuthiuron for 4 hours did not cause toxicity. Product is classed as irritating to eyes and skin, harmful if swallowed, possible skin sensitiser.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: Quartz (crystalline Silica) is classified by NTP as reasonably anticipated to be carcinogenic to humans. See the NTP website for further details. A web address has not been provided as addresses frequently change.

IARC: Quartz (crystalline Silica) is classed 1 by IARC - carcinogenic to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change. Note that the silica designations apply only to very finely divided silica as dust. Not expected to be a problem for this product.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc,%	TWA (mg/m ³)	STEL (mg/m ³)
Tebuthiuron	34014-18-1	200g/kg	not set	not set
Quartz (crystalline silica)	14808-60-7	15-40	0.1	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SAFETY DATA SHEET

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Quickly and gently brush away excess particles. Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is little risk of an explosion from this product if commercial quantities are involved in a fire.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include cotton, rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos. Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

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Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)
Quartz (crystalline silica)	0.1	not set

The ADI for Tebuthiuron is set at 0.07mg/kg/day. The corresponding NOEL is set at 7mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Values taken from Australian ADI List, June 2014.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: cotton, rubber, PVC.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Grey pellets.
Odour:	No data.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Solid at normal temperatures.
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	Negligible at normal ambient temperatures.
Vapour Density:	Not applicable.
Specific Gravity:	No data. Bulk density 0.96-1.12
Water Solubility:	Dispersible.
pH:	No data.
Volatility:	Negligible at normal ambient temperatures.
Odour Threshold:	No data.
Evaporation Rate:	Not applicable.
Coeff Oil/water Distribution:	No data
Viscosity:	Not applicable.
Autoignition temp:	Not applicable - does not burn.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: acids, bases, strong oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Silicon compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

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Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: Tebuthiuron has moderate to low toxicity in experimental animals when ingested. Reported oral LD₅₀ values for Tebuthiuron are 644mg/kg in rats, 579mg/kg in mice, 286mg/kg in rabbits, greater than 200mg/kg in cats, and greater than 500mg/kg in dogs. Tebuthiuron is of slight to low toxicity by skin exposure. The dermal LD₅₀ for Tebuthiuron in rabbits is greater than 200mg/kg. Neither skin irritation nor general overall intoxication were produced in rabbits that had 200mg/kg of the material applied to their skin. Tebuthiuron did not induce sensitization or allergic reactions when tested on the skin of guinea pigs. Application of 67 mg herbicide in the eyes of rabbits produced short-term conjunctivitis, inflammation of the lining of the eye, but no irritation to other eye parts, the cornea, or the iris. The inhalation by animals of 3.7mg/L technical Tebuthiuron for 4 hours did not cause toxicity.

Chronic toxicity: Decreases in body weight gain and red-blood cell counts, along with minor effects on the pancreas were seen in rats fed 125mg/kg/day for 3 months. Exposure of rats to dietary doses of Tebuthiuron as high as 80mg/kg/day for 2 years was well tolerated, with no indication of cumulative toxicity or serious effects. Similarly, no toxic effects were observed in mice exposed to doses as high as 200mg/kg/day for most of their lifetime, or in dogs given doses of 25mg/kg/day for 1 year.

Reproductive effects: The reproductive capacity of rats fed dietary concentrations of Tebuthiuron as high as 56mg/kg/day was unimpaired through three successive generations, and no abnormalities were detected in either parents or offspring. Tebuthiuron administered to pregnant rabbits at doses as high as 25mg/kg/day, and to rats at doses as high as 180mg/kg/day, produced no adverse effects on either the mothers or offspring. Based on these data, it is unlikely that Tebuthiuron causes reproductive effects.

Teratogenic effects: No teratogenic effects were observed when rats were fed Tebuthiuron at 180mg/kg/day. A rabbit teratology study was also negative at 25mg/kg/day, the highest dose tested. Based on these data, it is unlikely that Tebuthiuron causes birth defects.

Mutagenic effects: The Ames mutagenicity assay for Tebuthiuron was negative, as were assays for structural chromosome aberrations using mouse micronuclei. Based on these data, it seems that Tebuthiuron is not mutagenic.

Carcinogenic effects: No tumour related effects were observed in a 2-year rat feeding study at doses up to and including 80mg/kg/day, the highest dose tested. A 2-year oncogenic study on mice was negative at 200mg/kg/day, the highest dose tested. These data indicate that Tebuthiuron is not carcinogenic.

Organ toxicity: Damage to the pancreas has been observed in animal studies as a result of exposure to Tebuthiuron.

Fate in humans and animals: In rats, rabbits, dogs, mallards, and fish, Tebuthiuron is readily absorbed into the bloodstream from the gastrointestinal tract, rapidly metabolized, and then excreted in the urine. Tests indicate that the herbicide is broken down and excreted within 72 hours, primarily as a variety of urinary metabolites. There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Tebuthiuron	Conc>=25%: Xn; R22

Section 12 - Ecological Information

Very toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Effects on birds: Tebuthiuron is practically nontoxic to birds. The reported oral LD₅₀ values are > 2500mg/kg in both mallard ducks and bobwhite quail. A 30-day feeding of 1000 ppm Tebuthiuron to hens had no effect.

Effects on aquatic organisms: Tebuthiuron is slightly to practically non-toxic to fish and other aquatic species. The reported 96-hour LC₅₀ values are 87-144mg/L in rainbow trout, and 87 to 112mg/L in bluegill sunfish. The reported 96-hour LC₅₀ values are greater than 160mg/L in goldfish and fathead minnow. The 48-hour LC₅₀ in Daphnia, an aquatic invertebrate, is 225mg/L. The LC₅₀ in fiddler crab is greater than 320mg/L; the LD₅₀ in pink shrimp is more than 48mg/L.

Effects on other organisms: Tebuthiuron is slightly toxic to bees with a reported contact LD₅₀ of 30mg/bee. Tebuthiuron may be harmful to non-target plants.

EC₅₀ for algae reported to be <1mg/L

Environmental Fate:

Breakdown in soil and groundwater: Tebuthiuron is highly persistent in soil. Reported field half-lives are from 12 to 15 months in areas with over 100cm annual rainfall, with longer half-lives expected in drier areas or in soils with high organic matter content. Tebuthiuron is broken down slowly in the soil through microbial degradation.

Photodecomposition, or breakdown by sunlight, is negligible, as is volatilization (or evaporation from the soil surface). It is poorly bound to soil, suggesting high mobility. In field studies, however, little or no lateral movement has been seen in soils with appreciable clay or organic matter content. Neither Tebuthiuron nor its degradation products have been detected below the top 60cm of soil in field studies. It was found in some groundwater samples in Western of USA at levels up to 3.8 µg/L.

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Breakdown in water: No degradation was observed in a 33-day study of photolysis of Tebuthiuron in water.

Breakdown in vegetation: Tebuthiuron is readily absorbed through roots and translocated to other plant parts. It produces its effect by inhibiting photosynthesis, the process by which plants receive light from the sun and convert it into energy.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/> where you will find contact details for your area.

Section 14 - Transport Information

Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01) but classed as Dangerous by IATA and IMDG when carried by Air or Sea transport (see details below).

UN Number: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Hazchem Code: 2Z

Special Provisions: 179, 274, AU01

Limited quantities: ADG 7 specifies a Limited Quantity value of 5 kg for this class of product.

Dangerous Goods Class: Class 9: Miscellaneous Dangerous Goods.

Packaging Group: III

Packaging Method: P002, IBC08, LP02

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredient: Tebuthiuron, is mentioned in the SUSMP.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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SAFETY DATA SHEET