

# SAFETY DATA SHEET

## THISTLE KILLEM ULTRA

### 1: Identification of the Substance and Supplier

<b>Product Name</b>	<b>THISTLE KILLEM ULTRA</b>
<b>Recommended Use</b>	Herbicide
<b>Suppliers Details</b>	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545
<b>Web Address</b>	www.orionagriscience.co.nz
<b>Email Address</b>	orders@orionagriscience.co.nz
<b>Telephone Number</b>	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
<b>Emergency Telephone</b>	0800 CHEMCALL (0800 243 622) (24 hours)
<b>National Poison Centre</b>	0800 POISON (0800 764 766) (24 hours)
<b>Date of Issue/Revision</b>	March 2025

### 2: Hazards Identification

#### Hazard Pictograms



#### Signal Words

##### Hazard Classes:

Acute Oral Toxicity (I Cat. 4)  
Skin Sensitisation (Cat. 1)  
Specific target organ toxicity (repeated exposure) (Cat. 1)  
Hazardous to the aquatic environment acute (Cat. 1)  
Hazardous to the aquatic environment chronic (Cat. 1)  
Hazardous to soil organisms  
Hazardous to terrestrial vertebrates

##### Precautionary Statements:

Prevention

#### Danger

##### Hazard Statements:

H302 Harmful if swallowed  
H317 May cause an allergic skin reaction  
H372 Causes damage to organs through prolonged or repeated exposure  
H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects  
H421 Very toxic to the soil environment  
H433 Harmful to terrestrial vertebrates

P101 If medical advice is needed, have product container or label at hand  
P102 Keep out of reach of children  
P103 Read carefully and follow all instructions  
P264 Wash hands thoroughly after handling  
P270 Do not eat, drink or smoke when using this product  
P272 Contaminated work clothing should not be allowed out of the workplace  
P280 Wear protective gloves  
P260 Do not breathe dust/fume/gas/mist/vapours/spray  
P273 Avoid release to the environment  
P391 Collect spillage  
Avoid contact with eyes and skin. Do not breathe in the vapour or spray mist. When mixing or applying, wear personal protection as described in section 8. Take all reasonable steps to ensure that this product does not cause any significant adverse effects to the environment beyond the application area. Do not apply directly into or onto water.  
P301+P312 IF SWALLOWED: Call a poison centre/doctor if you feel unwell  
P330 Rinse mouth  
P332+P313 If skin irritation occurs get medical advice/attention  
P302+P352 IF ON SKIN: Wash with plenty of water

#### Response

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Storage  
Disposal

P333+P313 If skin irritation or rash occurs: Get medical advice/attention  
P321 Specific treatment (Refer to section 4)  
P362+P364 Take off contaminated clothing and wash it before reuse  
P314 Get medical advice/attention if you feel unwell  
P391 Collect spillage  
First aid measures described in section 4. Contain and collect spillage for disposal. In an emergency call 111, Police or Fire Brigade. For specialist advice in an emergency only, call 0800 CHEMCALL (0800 243 6225) (24 hrs).  
Keep out of reach of children  
P501 Dispose of contents by using it in accordance with this label. Dispose of the container via AgRecovery after triple rinsing (use the rinsate for spraying).

### 3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/v)
2,4 D ethylhexyl ester (active ingredient)	1928-43-4	90
Solvent naphtha	64742-94-5	>10
Other ingredients	Proprietary	Remainder

### 4: First Aid Measures

If medical advice is needed, have product container or label at hand. For advice call the National Poisons Centre or a Doctor

<b>Ingestion:</b>	Rinse mouth. Seek medical advice
<b>Skin Contact:</b>	Wash with plenty of soap and water. Seek medical advice if irritation occurs.
<b>Eye Contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do so. Continue rinsing. Seek medical advice if irritation persists.
<b>Inhalation:</b>	Remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice if feeling unwell.
<b>Workplace Facilities:</b>	Hand wash facility. Eye wash facility
<b>Advice to Doctor:</b>	No specific antidote. Treat symptomatically
<b>National Poison Centre</b>	0800 POISON (0800 764 766) (24 hours)

Symptoms of Exposure which could occur if this material is not handled in accordance with instructions:

<b>Ingestion:</b>	Nausea, vomiting, diarrhoea and gastrointestinal discomfort. The solvent in this product may cause bronchopneumonia or pulmonary oedema if aspirated into the lungs from ingestion or from vomiting
<b>Skin Contact:</b>	Irritation
<b>Eye Contact:</b>	No data available
<b>Inhalation:</b>	Irritation, headache, dizziness, nausea, vomiting

### 5: Fire-Fighting Measures

<b>Fire/Explosion Hazard</b>	Non-Flammable but will be combustible in a fire
<b>HAZCHEM Code</b>	3Z
<b>ERP Guide No</b>	47
<b>Extinguishing Media</b>	Water spray, foam, dry chemical or CO2. Avoid water jet.
<b>Fire Fighting Instructions</b>	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.
<b>Specific Hazards Arising from Fire</b>	No data available

### 6: Accidental Release Measures

<b>Personal Precautions</b>	Caution: Floors may be slippery if wet. Leave and/or avoid entering confined spaces. Wear personal protective clothing and equipment as described in section 8. Respiratory protection (with organic vapour cartridge) required for any spill other than minor. Exclude non-essential people from the area
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### Environmental Precautions

#### Clean Up

Prevent further spillage or leakage. Prevent material from entering drains, waterways, etc.

Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely to a suitable landfill.

## 7: Handling and Storage

#### Storage:

Keep out of reach of children. Store in the original tightly closed container in a secure area.

#### Handling and Use:

Keep out of reach of children. Refer to Prevention statements in section 2 above. Keep people and animals away from the area while spraying and for the duration of the REI.

#### REI

Until spray has dried

## 8: Exposure Controls / Personal Protection

#### Tolerable Exposure Limit

None established

#### Workplace Exposure Standards

2,4-D as acid 10 mg/m<sup>3</sup> (8hr TWA)

#### Engineering Controls

Select spray application equipment to minimize exposure to operator and bystanders

#### Personal Protection:

##### Eye

Safety glasses/goggles when mixing or applying

##### Skin

Chemical resistant overalls snugly fitting at the neck, wrist and ankle, boots and gloves (barrier multilayer, nitrile, neoprene)

##### Respiratory

Not required where vapour or spray mist is not inhaled. Otherwise, respirator (organic vapour and particulate matter) is required.

Clean protective equipment after use

## 9: Physical and Chemical Properties

#### Appearance

Amber Liquid

#### Odour

Sharp

#### Odour Threshold

Does not apply

#### pH

Does not apply

#### Melting Point/Freezing Point

Does not apply

#### Boiling Point

Does not apply

#### Flash Point

101°C

#### Flammability

Combustible

#### Upper/Lower Flammability Limits

Does not apply

#### Vapour Pressure

Does not apply

#### Vapour Density

> 1 (heavier than air)

#### Relative Density

1.14 g/mL (approx.)

#### Solubility in Water

Emulsifiable

#### Partition Coefficient: n-octanol/water

See section 12

#### Auto ignition Temperature

Does not apply

#### Decomposition Temperature

Does not apply

#### Kinematic Viscosity

Does not apply

#### Particle characteristics

Does not apply

## 10: Stability and Reactivity

#### Stability

Stable under normal conditions

#### Hazardous Reactions

None Expected

#### Incompatibility

None Known

#### Hazardous Decomposition Products

None Known

## 11: Toxicological Information

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This section describes effects which could occur if this material is not handled in accordance with this data sheet and label instructions

Acute Oral Toxicity	LD50 > 300 mg/kg
Acute Dermal Toxicity	LD50 > 5000 mg/kg
Acute Inhalation Toxicity	LD50 > 5 mg/L
Skin corrosion/irritation	Irritant
Serious eye damage/Eye irritation	Information not available
Respiratory or skin sensitisation	May cause an allergic skin reaction in susceptible individuals
Germ cell mutagenicity	Information not available
Carcinogenicity	Information not available
Reproductive Toxicity	Information not available
Specific Organ Toxicity – Single exposure	Information not available
Specific Organ Toxicity – Repeated exposure	Animal feeding studies on 2,4-D have found reductions in body weight gain, and food consumption, and minor increases in blood urea nitrogen, creatinine, and alanine aminotransferase.
Aspiration hazard	Information not available

### 12: Ecological Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet and label instructions

The following information is presented in respect of the active ingredient:

Ecotoxicity	<ul style="list-style-type: none"><li>Acute Oral LD50 (Mallard duck) 663 mg/kg</li><li>LC50 (96 hr) (Rainbow trout) Greater than solubility in water</li><li>LC50 (48 hr) (Daphnia) 5.2 mg/l</li><li>Algae EC50 0.23 mg/l</li><li>Non toxic to bees</li></ul>	
Persistence/degradability	Biodegradable. DT50 (soil) 4 days (typical)	
Bioaccumulative Potential	Octanol-water partition coefficient	LogP = -0.82 (low)
Soil Mobility	Soil organic carbon water partitioning coefficient	Koc = 39 (mobile)
Environmental Exposure Limit:	None established	

### 13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
Container	Dispose of to a suitable landfill or via AgRecovery. Do not burn. Do not use packaging for any other purpose.

### 14: Transport Information

Dangerous Goods	
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4 D ETHYLHEXYL ESTER 90%)
Class	9
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	1000 litres
Passenger Service Vehicle	No restriction

### 15 Regulatory Information

EPA Approval No	HSR000962
ACVM Registration No	P7765
Qualified Person	Required
Certified Handler	Not required
Workplace Only	No
Tracking	Not required
Record Keeping	Not required (unless > 3 L applied within 24 hours, and which is likely to leave the application area)
Site Requirements under EPA Notice and HSWHS Regs:	<ul style="list-style-type: none"> <li>• A hazardous substance location compliance certificate is not required</li> <li>• A hazardous area is not required</li> <li>• Separation distances for class 3 and class 6 substances to protected places and public places is not applicable</li> <li>• Fire extinguishers are not required</li> <li>• Signage is required for more than 100 litres</li> <li>• An emergency response plan is required for more than 100 litres</li> <li>• Secondary containment is required for more than 100 litres</li> <li>• Segregation from incompatible substances is not required</li> </ul>
Additional Requirements	Refer to NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans

### 16: Other Information

SDS review date	5 March 2025
Glossary	
ADE	Acceptable Daily Exposure – A daily dose, received via any route, below which no adverse effects are expected over a lifetime of exposure
ACVM	Agricultural Compounds and Veterinary Medicines group of the Ministry of Primary Industries
Cat.	GHS category
Ceiling	A concentration that should not be exceeded at any time during any part of the working day
Certified Handler	A qualification issued by a Compliance Certifier to handle and use particularly toxic substances (6.1A and 6.1B)
DT50	Time (days) for 50% reduction in concentration
EC50	Concentration required to produce an effect in 50% of organisms
Environmental Exposure Limit	Maximum concentration limit of a substance in an environmental medium, e.g., water, soil.
EPA Notice	Hazardous Property Controls Notice 2017
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
GHS	Globally harmonized system of classification and labelling of chemicals
Hazardous Substance Location Compliance Certificate	For locations storing hazard substances of certain classes above threshold quantities
Hazardous Area	A designated area designed for the presence of flammable substances - Refer AS/NZS 60079.10.1:2009
HAZCHEM Code	Emergency action code for emergency services
HSWHS Regs	Health and Safety at Work (Hazardous Substances) Regulations 2017
LC50	Concentration that will kill 50% of organisms
LD50	Dose that will kill 50% of organisms
MTQ	Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user
Notification	Advance notice given to neighbours and other affected parties, of details of proposed application, and other details as described
Octanol-Water Partition Coefficient	The partition coefficient of a substance between n-octanol and water, used as the Logarithm base 10

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<b>PDE</b>	form, as an indicator that a substance may bioaccumulate Permitted Daily Exposure - A daily dose below which no adverse effects are expected over a lifetime of exposure
<b>Protected Place</b>	Residential properties, schools, hospitals, kindys, factories, shops, warehouses, etc., and other places where people assemble
<b>Public Place</b>	A place frequented by the public, including roads (does not include private property)
<b>Qualified Person</b>	A requirement for the loader, contractor or person applying the product to hold a qualification such as a GROWSAFE Certificate, Unit Standard 21563, etc.
<b>Record Keeping</b>	Includes a spray diary or other record of application
<b>REI</b>	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences once ventilation after treatment begins.
<b>Segregation</b>	Certain classes of substances must not be in contact with, and must be stored separately from, certain other classes as specified in HSWHS Regs
<b>Separation Distances</b>	The distances specified in Part 11 and Part 13 of HSWHS Regs between storage and/or use of hazardous substances and protected places and/or public places
<b>Signage</b>	Positioned at entrances to commercial premises providing information on the hazardous substances present
<b>Soil Adsorption Coefficient (Kd)</b>	The ratio of the concentrations of a substance adsorbed onto a solid sorbent to that dissolved in a liquid phase. The higher the value the less mobile the chemical is in soil
<b>Soil Organic Carbon-Water Partitioning Coefficient (Koc)</b>	The ratio of the mass of a chemical that is adsorbed in the soil per unit mass of organic carbon in the soil. The higher the value the less mobile the chemical is in soil
<b>STEL</b>	Short term exposure level – 15 minute time weighted average
<b>Tolerable Exposure Limit</b>	Maximum concentration limit of a substance above which persons must not be exposed
<b>Tracking</b>	For some particularly hazardous substances, a record must be kept of the transport, storage, sale and use of the product
<b>TWA</b>	Time weighted average calculated over an 8 hour working day
<b>Workplace Exposure Standard</b>	An occupational health standard limiting concentrations of specified substances to which persons are exposed
<b>Workplace Only</b>	A product that is restricted to a workplace only and under the supervision of a certified handler

### Please Note

Users must ensure that the most up to date version of this safety data sheet is used.

This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.