

# SAFETY DATA SHEET

## AQUA K-OTHRINE INSECTICIDE

1/11

Revision Date: 21.02.2023

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

**Trade name** AQUA K-OTHRINE INSECTICIDE  
**Product code (UVP)** 06477399

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Use** Insecticide  
**EPA Approval** HSR100623

#### 1.3 Details of the supplier of the safety data sheet

**Importer/distributor** Garrards (NZ) Ltd  
Unit 4/27B Cain Road  
Penrose  
Auckland 0627  
New Zealand  
Telephone: 09 526 5232  
www.garrards.co.nz

#### 1.4 Emergency telephone numbers

**Emergency Number** **For specialist advice in an emergency call +64 9801 0034 or 0800 425 459 toll free.**  
The toll free phone number is possibly accessible, but not guaranteed from payphones within New Zealand and is not accessible from outside of New Zealand.

**National Poisons Centre** 0800 764 766 [0800 POISON]

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### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classified as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020**

Acute oral toxicity Category 4

H302 Harmful if swallowed.

Aspiration toxicity Category 1

H304 May be fatal if swallowed and enters airways.

Specific target organ toxicity, repeated exposure Category 2

H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.

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Hazardous to the aquatic environment, acute Category 1

H400 Very toxic to aquatic life.

Hazardous to the aquatic environment, chronic Category 1

H410 Very toxic to aquatic life with long lasting effects

Hazardous to soil organisms.

Hazardous to terrestrial vertebrates.

Hazardous to terrestrial invertebrates.

### 2.2 Label elements

Labelling in accordance with Hazardous Substances (Labelling) Notice 2017

#### Pictograms



**Signal word:** Danger

#### Hazard statements

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H423 Harmful to the soil environment.

H432 Toxic to terrestrial vertebrates.

H441 Very toxic to terrestrial invertebrates.

#### Precautionary statements

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe mist/vapours/spray.

P264 Wash hands and exposed skin thoroughly after handling.

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

P273 Avoid release to the environment.

P101 If medical advice is needed, have product container or label at hand.

P314 Get medical advice/attention if you feel unwell.

P301+P312 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P330 Rinse mouth.

P331 Do NOT induce vomiting.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Chemical nature

Emulsion, oil in water, concentrate (EW) containing deltamethrin 20 g/L

##### Hazardous components

Name	CAS-No.	Conc. [%]
Deltamethrin	52918-63-5	2.0
Solvent naphtha (petroleum), heavy aromatic (<1% naphthalene)	64742-94-5	>1.0 - <25.0
Stearyl alcohol, ethoxylated	9005-00-9	>1.0 - <3.0
1,2-Benisothiazol-3(2H)-one	2634-33-5	>0.005 - < 0.05
Other ingredients	Proprietary	To balance

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

<b>General advice</b>	If medical advice is needed, have product container or label at hand. Contact the National Poisons Centre 0800 764 766 (0800 POISON]. Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air. Keep patient warm and at rest. Call a doctor or National Poisons Centre immediately for advice.
<b>Skin contact</b>	Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist get medical advice.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Call a doctor or National Poisons Centre immediately for advice.

#### 4.2 Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Local:, Skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours, Skin, eye and mucous membrane irritation, Cough, Sneezing  Systemic:, discomfort in the chest, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy, Dizziness
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### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Risks</b>	This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
<b>Treatment</b>	Systemic treatment: Initial treatment: symptomatic. Monitor: respiratory and cardiac functions. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Keep respiratory tract clear. Oxygen or artificial respiration if needed. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Contraindication: atropine. Contraindication: derivatives of adrenaline. There is no specific antidote. Recovery is spontaneous and without sequelae. In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

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## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

<b>Suitable</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable</b>	High volume water jet

**5.2 Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire.

### 5.3 Advice for firefighters

<b>Special protective equipment for firefighters</b>	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
<b>Further information</b>	Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>Precautions</b>	Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment.
<b>6.2 Environmental precautions</b>	Contain spillage. Do not allow to get into surface water, drains and ground water.

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### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Comply with any local regulations.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

**Advice on safe handling** Read label before use. Use only in area provided with appropriate exhaust ventilation.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition. Vapours may form explosive mixtures in air.

**Hygiene measures** Avoid inhalation of mist, vapour or spray and contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing immediately and wash before reuse. Items that cannot be cleaned must be destroyed (burnt).

### 7.2 Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers** Keep out of reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from freezing.  
Storage of more than 100L requires signage, secondary containment and an emergency response plan.

**Advice on common storage** Keep away from food, drink and animal feeding stuffs.

**Suitable materials** COEX HDPE/EVOH/HDPE

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components	CAS-No.	Control parameters	Exposure	Basis
Deltamethrin	52918-63-5	0.01 mg/m <sup>3</sup> (TWA)	Inhalation	OES BCS*
Rubber solvent (naphtha)	Not specified	1600 mg/m <sup>3</sup> ; 400 ppm (TWA)	Inhalation	NZ TWA**

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

\*\* NZ Workplace exposure standards and biological exposure indices, WORKSAFE, ed. 13, April 2022

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### 8.2

#### 8.3 Exposure controls

##### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

##### Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure when product is used outdoors and in well-ventilated area.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

##### Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material Nitrile rubber

Rate of permeability > 480 min

Glove thickness > 0.4 mm

Protective index Class 6

Directive Protective gloves complying with relevant standard

##### Eye protection

Wear chemical goggles.

##### Skin and body protection

Wear standard coveralls. If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

##### General information

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

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

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance White opaque liquid suspension

Odour Strong, characteristic

Odour threshold No information

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<b>pH</b>	3.5 - 5.0 (neat) (23 °C) 4.5 – 7.5 (1% aqueous) (23 °C)
<b>Freezing point</b>	No information
<b>Initial boiling point and boiling range</b>	No information
<b>Flash point</b>	No information
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	0.8 – 7.0 % v/v (refers to solvent naphtha petroleum)
<b>Vapour pressure</b>	No information
<b>Vapour density</b>	1.0 (refers to solvent naphtha petroleum)
<b>Relative density</b>	ca. 1.00 g/cm <sup>3</sup> at 20 °C
<b>Solubility</b>	Miscible in water
<b>Partition coefficient: n-octanol/water</b>	Deltamethrin: log Pow: 6.4 at 25 °C
<b>Auto-ignition temperature</b>	No information
<b>Decomposition temperature</b>	No information
<b>Viscosity, dynamic</b>	≤ 30 mPa.s at 20 °C Velocity gradient 20 /s
<b>Viscosity, kinematic</b>	ca 3 mPa.s at 40 °C
<b>Surface tension</b>	ca 25.7 mPa.s at 40 °C
<b>Particle characteristics</b>	No information
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Store only in the original container.

**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute oral toxicity** Harmful if swallowed.

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<b>Acute inhalation toxicity</b>	Not classified
<b>Acute dermal toxicity</b>	Not classified
<b>Skin irritation</b>	Slight skin irritation (Rabbit)
<b>Eye irritation</b>	Slight eye irritation (Rabbit)
<b>Respiratory sensitisation</b>	Not classified
<b>Skin sensitisation</b>	Non-sensitizing (Guinea pig, Beuhler test, OECD Test 406). Sensitiser (Mouse Local lymph node assay, OECD Test 429).
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.

### Assessment mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

### Assessment carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

### Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

### Assessment STOT Specific target organ toxicity – single exposure

Deltamethrin: Based on available data, the classification criteria are not met.

### Assessment STOT Specific target organ toxicity – repeated exposure

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

### Toxicological data

Oral LD50 (Rat) 304 mg/kg

Inhalation LC50 (Rat) > 5.80 mg/l Exposure time: 4 h (highest attainable concentration)

Dermal LD50 (Rat) > 5,000 mg/kg

### Further information

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

The toxicological data refer to a similar formulation.

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## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Hazard classification** Very toxic to aquatic life and with long lasting effects.  
Harmful to the soil environment, toxic to terrestrial vertebrates and very toxic to terrestrial invertebrates.

**Toxicity to fish** LC50 (*Oncorhynchus mykiss* (rainbow trout)) 0.15 µg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient deltamethrin.

LC50 (*Oncorhynchus mykiss* (rainbow trout)) 0.422g/l  
Exposure time: 96 h  
The value mentioned relates to study on similar formulation.



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**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 0.0131 µg/l Exposure time: 48 h  
The value mentioned relates to the active ingredient deltamethrin.

**Toxicity to aquatic plants** EC50 (Algae) > 9.1 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient deltamethrin.

### 12.2 Persistence and degradability

**Biodegradability** Deltamethrin:  
Not rapidly biodegradable

**Koc** Deltamethrin: Koc: 10240000

### 12.3 Bioaccumulative potential

**Bioaccumulation** Deltamethrin: Bioconcentration factor (BCF) 1,400  
Does not bioaccumulate.

### 12.4 Mobility in soil

**Mobility in soil** Deltamethrin: Immobile in soil

### 12.5 Results of PBT and vPvB assessment

**PBT and vPvB assessment** Deltamethrin: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

### 12.6 Other adverse effects

**Additional ecological information** No further ecological information is available.

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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

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

**Contaminated packaging** Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

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## SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

### ADR/RID/ADN

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	3Z

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### IMDG

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

### IATA

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION )
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environ. Hazardous Mark	YES

### 14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

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## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### HSNO Act 1996

HSNO substance No.	HSR100623
HSNO Controls	See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>

#### ACVM Act 1996

ACVM registration No.	Exempt
ACVM conditions	See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a>

**Other product approvals**      Approved Maintenance Compound Type A

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## SECTION 16: OTHER INFORMATION

**Date issued:**            21st February 2023

**Reason for issue:**    Change is supplier and 5-yearly review, update to GHS

**Replaces:**

### Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances

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EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World Health organisation

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.