

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

1/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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-Nr. HSR100623

1.3 Details of the supplier of the safety data sheet

Supplier Bayer CropScience Pty Ltd
Level 1, 8 Redfern Road,
Hawthorn East, Vic 3123
Australia

Telephone +61 3 9248 6612

Telefax +61 3 9248 6800

Local agent Bayer New Zealand Limited
3 Argus Place
Hillcrest
Auckland 0627
New Zealand
Telephone: 0800 428 246
Telefax: (09) 441 8645

1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)
Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

6.1D
H302 Harmful if swallowed.

6.1E
H333 May be harmful if inhaled.

6.3B
H316 Causes mild skin irritation.

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

2/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

- 6.9B
H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.
- 9.1A
H410 Very toxic to aquatic life with long lasting effects.
- 9.2C
H423 Harmful to the soil environment.
- 9.3B
H432 Toxic to terrestrial vertebrates.
- 9.4A
H441 Very toxic to terrestrial invertebrates.

2.2 Label elements

Labelling in accordance with Hazardous Substances Identification Regulations 2001

Hazard label for supply/use required.



Signal word: Warning

Hazard statements

- H302 Harmful if swallowed.
H333 May be harmful if inhaled.
H316 Causes mild skin irritation.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.
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.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
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).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

3/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

Emulsion, oil in water (EW)
Deltamethrin 20 g/l

Hazardous components

Name	CAS-No.	Conc. [%]
Deltamethrin	52918-63-5	2.00
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	> 1.00 – < 25.00
Stearyl alcohol, ethoxylated	9005-00-9	> 1.00 – < 3.00
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0.005 – < 0.05

Further information

Deltamethrin	52918-63-5	M-Factor: 1,000,000 (acute), 1,000,000 (chronic)
--------------	------------	--------------------------------------------------

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	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, call a physician.
Eye contact	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.
Ingestion	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Do not leave victim unattended. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	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
-----------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

4/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

4.3 Indication of any immediate medical attention and special treatment needed

Risks	This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
Treatment	<p>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.</p> <p>Contraindication: atropine. Contraindication: derivatives of adrenaline. There is no specific antidote. Recovery is spontaneous and without sequelae.</p> <p>In case of skin irritation, application of oils or lotions containing vitamin E may be considered.</p>

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	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

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information	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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

5/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

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 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 mixture with air.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials Coex HDPE/EVOH/HDPE

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.01 mg/m ³ (TWA)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	1,600 mg/m ³ /400 ppm (TWA)	02 2013	NZ OEL

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

8.2 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.

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

6/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

Respiratory protection	<p>Respiratory protection is not required under anticipated circumstances of exposure.</p> <p>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.</p>
Hand protection	<p>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.</p> <p>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.</p> <p>Material Nitrile rubber Rate of permeability > 480 min Glove thickness > 0.4 mm Directive Protective gloves complying with EN 374.</p>
Eye protection	<p>Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).</p>
Skin and body protection	<p>Wear standard coveralls and Category 3 Type 4 suit.</p> <p>If there is a risk of significant exposure, consider a higher protective type suit.</p> <p>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.</p>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	suspension, opaque
Colour	white
Odour	strong, characteristic
pH	3.5 - 5.0 at 100 % (23 °C) 4.5 - 7.5 at 1 % (23 °C) (deionized water)
Ignition temperature	> 450 °C The data refer to solvent naphtha petroleum.
Upper explosion limit	7.00 %(V) The data refer to solvent naphtha petroleum.
Lower explosion limit	0.8 %(V) The data refer to solvent naphtha petroleum.
Relative vapour density	1.00 The data refer to solvent naphtha petroleum.
Density	ca. 1.00 g/cm ³ at 20 °C

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

7/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

Water solubility	miscible
Partition coefficient: n-octanol/water	Deltamethrin: log Pow: 6.4 at 25 °C
Viscosity, dynamic	<= 30 mPa.s at 20 °C Velocity gradient 7.5 /s
Viscosity, kinematic	ca. 3 mm ² /s at 40 °C
Surface tension	ca. 25.7 mN/m at 40 °C
9.2 Other information	Further safety related physical-chemical data are not known.

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.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity LD50 (Rat) 304 mg/kg

Acute inhalation toxicity LC50 (Rat) > 5.80 mg/l
Exposure time: 4 h
Highest attainable concentration.

Acute dermal toxicity LD50 (Rat) > 5,000 mg/kg

Skin irritation Slight irritant effect - does not require labelling. (Rabbit)

Eye irritation Slight irritant effect - does not require labelling. (Rabbit)

Sensitisation Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test
Sensitising (Mouse)
OECD Test Guideline 429, local lymph node assay (LLNA)
Test conducted with a similar formulation.

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

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

8/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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.

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.

Aspiration hazard

May be fatal if swallowed and enters airways.

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).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.422 mg/l Exposure time: 96 h Test conducted with a similar formulation.
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,
--------------------------------	------------------------------------------------------------------

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

9/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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.

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.

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	3082
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

IMDG

14.1 UN number	3082
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	3082
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

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

10/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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.

SECTION 15: REGULATORY INFORMATION

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

Further information

HSNO approval-Nr.	HSR100623
HSNO Controls	See www.epa.govt.nz
ACVM Condition	See www.foodsafety.govt.nz
Other product approvals	Approved Maintenance Compound Type A

SECTION 16: OTHER INFORMATION

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
EC _x	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
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)
IC _x	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LC _x	Lethal concentration to x %
LD _x	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

SAFETY DATA SHEET



AQUA K-OTHRINE INSECTICIDE

Version 1 / NZ
102000011793

11/11
Revision Date: 17.01.2018
Print Date: 23.01.2018

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.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 2015/830.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
