

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

Version 1 / AUS  
102000011793

1/11  
Revision Date: 06.10.2016  
Print Date: 25.10.2016

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

Trade name Aqua-K-Othrine® Insecticide Space-Spray Concentrate  
Product code (UVP) 06477399

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

Use Insecticide

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

Supplier Bayer Cropscience Pty Ltd  
ABN 87 000 226 022  
Level 1, 8 Redfern Road  
3123 Hawthorn East  
Victoria  
Australia  
  
Telephone (03) 9248 6888  
Telefax (03) 9248 6800  
Responsible Department 1800 804 479 Technical Information Service  
Website [www.environmentalscience.bayer.com.au](http://www.environmentalscience.bayer.com.au)

#### 1.4 Emergency telephone no.

Emergency telephone no. 1800 033 111 IXOM Operations Pty Ltd

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification in accordance with Australian GHS Regulation

Acute toxicity: Category 4

H302 Harmful if swallowed.

Aspiration hazard: Category 1

H304 May be fatal if swallowed and enters airways.

Skin sensitisation: Category 1

H317 May cause an allergic skin reaction.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Labelling according to specific Australian legislation

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

2/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016  
Print Date: 25.10.2016

Deltamethrin  
Solvent Naphtha (petroleum), heavy aromatic

**Signal word:** Danger

### Hazard statements

H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P261 Avoid breathing mist.  
P264 Wash face 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.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician.  
P330 Rinse mouth.  
P331 Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water/ soap.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Deltamethrin 20 g/l

Chemical nature Emulsion, oil in water (EW)

Chemical Name	CAS-No.	Concentration [%]
Deltamethrin	52918-63-5	2.00
Solvent Naphtha (petroleum), heavy aromatic	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
Other ingredients (non-hazardous) to 100%		

## SECTION 4. FIRST AID MEASURES

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

Version 1 / AUS  
102000011793

3/11  
Revision Date: 06.10.2016  
Print Date: 25.10.2016

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

### 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
----------	---

### 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	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.

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

4/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016

Print Date: 25.10.2016

In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

### SECTION 5. FIRE FIGHTING 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.

**Hazchem Code** •3Z

### SECTION 6. ACCIDENTAL RELEASE MEASURES

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

**Precautions** Avoid contact with spilled product or contaminated surfaces. Remove all sources of ignition. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment. Keep people away from and upwind of spill/leak.

**6.2 Environmental precautions** Retain and dispose of contaminated wash water. Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

#### 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). Keep in suitable, closed containers for disposal. Clean floors and contaminated objects with plenty of water.

**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.

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

Version 1 / AUS  
102000011793

5/11  
Revision Date: 06.10.2016  
Print Date: 25.10.2016

### SECTION 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

- Advice on safe handling** No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate 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** When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Wash hands immediately after work, if necessary take a shower.

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

- Requirements for storage areas and containers** Keep out of the reach of children. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Protect from freezing.
- Advice on common storage** Keep away from food, drink and animal feedingstuffs.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m <sup>3</sup> (TWA)		OES BCS*

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

#### Additional advice

Observe: Exposure Limits In Air, Group 3: 100 mg/m<sup>3</sup>/ 20 ppm. (aromatic-rich hydrocarbon mixes with > 25% aromatics TRGS 901, No. 72).

#### 8.2 Exposure controls

- Respiratory protection** Respiratory protection is not required under anticipated circumstances of exposure.  
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** Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and 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.

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

6/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016

Print Date: 25.10.2016

Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection	Wear standard coveralls and Category 3 Type 4 suit. 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.
General protective measures	In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.
Engineering Controls	
Advice on safe handling	No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

### 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 <sup>3</sup> at 20 °C
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 <sup>2</sup> /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.

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

Version 1 / AUS  
102000011793

7/11  
Revision Date: 06.10.2016  
Print Date: 25.10.2016

### 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 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 – 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.

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

8/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016  
Print Date: 25.10.2016

### Aspiration hazard

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

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11

### Exposure levels and health effects

Refer to Section 4

### Interactive effects

Not known

### When specific chemical data is not available

Not applicable

### Mixture of chemicals

Refer to Section 2.1

### 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



# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

9/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016  
Print Date: 25.10.2016

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

### 12.5 Other adverse effects

**Additional ecological information** No other effects to be mentioned.

## SECTION 13. DISPOSAL CONSIDERATIONS

Metal drums and plastic containers:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SECTION 14. TRANSPORT INFORMATION

### ADG

UN number	3082
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
Hazchem Code	•3Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

### IMDG

UN number	3082
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

### IATA

UN number	3082
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION )

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

10/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016  
Print Date: 25.10.2016

### SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994

Australian Pesticides and Veterinary Medicines Authority approval number: 63246

#### SUSMP classification (Poison Schedule)

Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons)

### SECTION 16. OTHER INFORMATION

**Trademark information** Aqua-K-Othrine® is a registered trademark of the Bayer Group.

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 should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

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

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.

#### 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
AU OEL	Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
CAS-Nr.	Chemical Abstracts Service number
CEILING	Ceiling Limit Value
Conc.	Concentration
EC-No.	European community number
ECx	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)
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

# Safety Data Sheet



## Aqua-K-Othrine® Insecticide Space-Spray Concentrate

11/11

Version 1 / AUS  
102000011793

Revision Date: 06.10.2016  
Print Date: 25.10.2016

N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
OES BCS	OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
PEAK	PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN	Skin sensitiser
SKIN_DES	SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL	STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA	TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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

END OF SDS