

# MATERIAL SAFETY DATA SHEET Aqua-K-Othrine Insecticide Space Spray Concentrate

Date of Issue: 4 February 2010

## 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: **Aqua K-Othrine Insecticide Space Spray Concentrate**  
Product code (UVP): 06477399  
Chemical group: Synthetic pyrethroid  
Recommended use: Insecticide  
Formulation: Emulsion in water (EW)  
Supplier: Bayer Environmental Science – A Business Group of Bayer CropScience Pty Ltd  
ABN 87 000 226 022  
Address: 391 - 393 Tooronga Road, East Hawthorn  
Victoria 3123, Australia  
Telephone: (03) 9248 6888  
Facsimile: (03) 9248 6800  
Website: [www.bayeres.com.au](http://www.bayeres.com.au)  
Contact: Technical Manager (03) 9248 6888  
Emergency  
Telephone Number: 1800 033 111 – Orica SH&E Shared Services

## 2. HAZARDS IDENTIFICATION

### HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD (Road & Rail)

Harmful if swallowed. Harmful: may cause lung damage if swallowed.

Repeated exposure may cause skin dryness or cracking.

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

Hazard designation: Hazardous (National Occupational Health and Safety Commission - NOHSC)  
Risk phrases: R65 – Harmful: May cause lung damage if swallowed  
R66 – Repeated exposure may cause skin dryness or cracking  
R22 – Harmful if swallowed  
Safety phrases: See Sections 4, 5, 6, 7, 8, 9, 13  
ADG classification: See section 14  
SUSDP  
classification: Schedule 6 (Standard for the Uniform Scheduling of Drugs and Poisons)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (%):
Deltamethrin	[52918-63-5]	2.00
Solvent naphtha (petroleum) heavy aromatic	[64742-94-5]	>5 - <25
Other ingredients	(non hazardous)	~75

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## 4. FIRST AID MEASURES

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

- Inhalation:** If inhaled, remove to fresh air and keep at rest. If symptoms persist seek medical advice.
- Skin contact:** Carefully remove contaminated clothing and footwear. Wash affected areas with soap and plenty of water. After skin contact: apply vitamin E cream, toilet milks or local anaesthetic creams to reduce irritation if it occurs. If symptoms persist seek medical advice.
- Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses (if relevant) after the first 5 minutes, then continue rinsing eye. Seek medical advice if irritation develops and persists.
- Ingestion:** Rinse out mouth and give water in small sips to drink. Rinse mouth, ingest activated charcoal. Do not induce vomiting. If symptoms persist seek medical advice. Induce vomiting only, if: 1. Patient is fully conscious, 2. Medical aid is not readily available, 3. A significant amount (more than a mouthful) has been ingested and 4. time since ingestion is less than 1 hour. (Vomit should not get into the respiratory tract).
- First Aid Facilities:** Ensure eye wash and safety shower are available.
- Symptoms:** Local: Skin and eye paraesthesia which may be severe. Usually transient with resolution within 24 hours, eye and mucous membrane irritation, cough.
- Systemic: Discomfort in the chest, bronchial hyper-secretion, pulmonary oedema, tachycardia, low blood pressure, palpitation, vomiting, diarrhoea, abdominal pain, nausea, salivation, dizziness, blurred vision, headache, apathy, anorexia, somnolence, coma, spasm, convulsions, tremors, ataxia, muscular fasciculation.
- This product contains a pyrethroid and must NOT be confused with organophosphate compounds.
- Treatment:** Local treatment: Treat symptoms. Skin contacted by deltamethrin must be carefully cleaned with cleansing milk. Symptoms can be partially alleviated by the application of a vitamin E or moisturising cream or anaesthetic ointment. For eyes, instil local anaesthetic drops e.g. 1% amethocaine hydrochloride eye drops. Give analgesics as necessary.
- Systemic treatment:  
Endotracheal intubation and gastric lavage, followed by administration of charcoal.  
Monitoring of respiratory and cardiac functions.  
ECG – monitoring (Electrocardiogram)  
Check for pulmonary oedema in event of inhalation.  
Keep airway clear, administer artificial respiration if necessary.  
Anticonvulsant therapy with diazepam. For adults 5 – 10 mg i.v. as necessary until fully sedated; for children 2.5 mg i.v.  
No antidote known. Treat symptoms. Recovery should be spontaneous.  
Contraindication – adrenergic compounds, atropine.  
DO NOT confuse with anticholinesterase compounds.

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## 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water spray, alcohol resistant foam, carbon dioxide or dry chemical.  
High volume water jet is not recommended.

**Hazards from combustion products:** Dangerous gases are evolved in the event of a fire.

**Precautions for fire fighters:** Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1716), as toxic and irritating decomposition products may be produced in a fire. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area to prevent contamination of water sources. Dispose of fire control extinguishing agent and spillage later in a safe manner. Do not release contaminated water into the environment.

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing and equipment as detailed in 'Personal Protection' section. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. Contain/absorb spillage in sand/earth or other suitable inert material. Transfer collected material to sealable containers. Seal and label containers ready for disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

## 7. HANDLING AND STORAGE

**Handling:** No specific precautions required when handling unopened packs/containers, follow relevant manual handling advice.

**Storage:** Keep out of reach of children. Store in original container in a cool, dry, well-ventilated area. Keep away from food, drink and animal feedstuffs. Keep out of direct sunlight and protect from freezing. Keep away from heat and sources of ignition. Storage temperature should ideally lie between 0 and 30°C, however storage for two weeks at 54°C has shown no adverse effects regarding product safety or stability. Suitable storage containers:  
Co-extruded containers with internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH).  
Co-extruded containers with an internal barrier layer made of polyamide (PA).  
Fluorinated HDPE.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure standards:** No exposure standard has been assigned by Safe Work Australia. Bayer recommends an Occupational Exposure Standard for deltamethrin of 0.28 mg/m<sup>3</sup>.

**Engineering controls:** Control process conditions to avoid contact.

**Personal Protective Equipment:** In normal use and handling refer to product label.  
In all other cases the following recommendations apply:  
**Respiratory protection:** No personal respiratory protective equipment normally required.  
**Hand protection:** Wear CE marked (or equivalent) nitrile rubber gloves (minimum thickness 0.4 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands before eating, drinking, smoking or using the toilet.  
**Eye protection:** Wear goggles.  
**Skin and body protection:** Wear polyester/cotton overalls underneath chemical protection suit if possible.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Opaque white liquid  
**Odour:** Strong characteristic hydrocarbon  
**Vapour pressure:** Not available  
**Vapour density:** 1.00 (relates to the solvent naphtha petroleum)  
**Boiling point:** Not available  
**Solubility:** Forms an emulsion  
**Density:** 1.002 g/cm<sup>3</sup> at 20°C  
**pH:** 3.5 – 5 at 100% (20°C)  
**Flash Point:** Not applicable  
**Flammability (explosive) limits:** Not applicable  
**Ignition temperature:** >450 °C (relates to the solvent naphtha petroleum)  
**Octanol/water partition coefficient:** LogP<sub>ow</sub> = 4.6 (25 °C) – deltamethrin  
**Formulation:** Emulsion in water (EW)

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions of use.

**Conditions to avoid:** Avoid extremes of temperature and direct sunlight.

**Hazardous reactions:** No hazardous reactions when stored and handled according to prescribed instructions (refer to product label).

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## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity:	LD <sub>50</sub> rat: 304 mg/kg
Acute dermal toxicity:	LD <sub>50</sub> rat: > 5000 mg/kg  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).
Acute inhalation toxicity:	LC <sub>50</sub> (4 h) rat: > 5.8 mg/L When inhaled in high concentration, the solvent vapours cause a narcotic effect.
Skin irritation:	Slightly irritating (rabbit). Does not require labelling.
Eye irritation:	Slightly irritating (rabbit). Does not require labelling.
Sensitisation:	Non-sensitising (guinea pig) OECD Test Guideline 406, Buehler test

### Other information:

Deltamethrin is not mutagenic, carcinogenic or teratogenic.

## 12. ECOLOGICAL INFORMATION

Fish toxicity:	Deltamethrin: LC <sub>50</sub> : 0.001 – 0.01 mg/L (96 h) fish.
Daphnia toxicity:	Deltamethrin: LC <sub>50</sub> (48h): 3.5 µg/L
Toxicity to algae:	Deltamethrin: EC <sub>50</sub> (96h): >9.1mg/L
Bird toxicity:	Deltamethrin: LD <sub>50</sub> : > 5,000 mg/kg duck Deltamethrin: LD <sub>50</sub> : > 10,000 mg/kg quail
Bee toxicity:	Deltamethrin found to be highly toxic in lab studies but considered less toxic under natural conditions.
Environmental fate, persistence and degradation:	Deltamethrin is not persistent in the environment. It is destroyed by soil micro-organisms and does not leave residues in the environment or build up in the food chain.

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## 13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to treatment mixture. 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.

## 14. TRANSPORT INFORMATION

### IMDG

UN number:	UN 3082
Description of the goods:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
Class and Subsidiary Risk:	9
Packaging Group:	III
Marine Pollutant:	Yes
Note for Road and Rail Transport	According to AU01, Environmentally Hazardous Substances in packagings, IBCs or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code

## 15. REGULATORY INFORMATION

Australian Pesticides and Veterinary Medicines Authority Approval Number: 63246

## 16. OTHER INFORMATION

Trademark information:	Aqua-K-Othrine is a Registered Trademark of Bayer.
Preparation information:	Replaces 7 October 2009 edition. Reason for update: Revision of Transport Information
Data sources:	Bayer CropScience European product safety data sheet.

This MSDS 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 MSDS 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.

END OF MSDS