

Bayer Environmental Science
Material Safety Data Sheet
Aqua-K-Othrine® Insecticide Space-Spray Concentrate



Version / AUS
 102000011793

Revision Date: 13.07.2011
 Print Date: 18.07.2011

SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **Aqua-K-Othrine® Insecticide Space-Spray Concentrate**
 Other names: None
 Product code (UVP): 06477399
 Recommended use: Insecticide

Chemical formulation: Emulsion, oil in water (EW)

Company: Bayer Environmental Science
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SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

HAZARDOUS SUBSTANCE		DANGEROUS GOODS
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Hazardous classification: Hazardous (National Occupational Health and Safety Commission - NOHSC).

R-phrase(s): R22 - Harmful if swallowed.
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R65 - Harmful: may cause lung damage if swallowed.
 R66 - Repeated exposure may cause skin dryness or cracking.

S-phrase(s): See sections 4, 5, 6, 7, 8, 10, 12, 13.

ADG Classification: Not a "Dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Aqua K-Othrine Insecticide Space Spray Concentrate is a MARINE POLLUTANT. See Section 14.

SUSMP classification (Poison Schedule): Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Deltamethrin 20 g/L

Chemical Name	CAS-No.	Concentration [%]
Deltamethrin	52918-63-5	2.00

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Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	> 2.50 - < 25.00
Stearyl alcohol, ethoxylated	9005-00-9	> 1.00 - < 5.00
Other ingredients (non-hazardous) to 100 %		

SECTION 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 the doctor.

Inhalation

Move the victim to fresh air and keep at rest. Call a physician or poison control center immediately.

Skin contact

In case of 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

Keep at rest. Rinse mouth. Do NOT induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately.

Notes to physician

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, dizziness, blurred vision, headache, anorexia, somnolence, coma, convulsions, tremors, prostration, airway hyperreaction, pulmonary oedema, palpitation, muscular fasciculation, apathy.

Treatment

Local treatment: Initial treatment: Symptomatic.

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.

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If not effective, phenobarbital may be used.
Contraindication: atropine.
Contraindication: derivatives of adrenaline.
There is no specific antidote.
Recovery is spontaneous and without sequelae.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide

Extinguishing media which should not be used for safety reasons

High volume water jet.

Hazards from combustion products

Dangerous gases are evolved in the event of a fire.

Precautions for fire-fighting

In the event of fire, wear self-contained breathing apparatus.
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

Personal precautions

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.

Environmental precautions

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

Methods for cleaning up

Keep in suitable, closed containers for disposal.
Clean floors and contaminated objects with plenty of water.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Additional advice

Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.
Check also for any local site procedures.

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SECTION 7. HANDLING AND STORAGE

Handling

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.

Advice on protection against fire and explosion:

- Keep away from heat and sources of ignition.
- Vapours may form explosive mixture with air.

Storage

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.

Suitable materials:

- Coex EVOH (1000L IBC)

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

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

For further details on the Occupational Exposure Standards, see Section 16.

Observe: Exposure Limits In Air, Group 3: 100 mg/m³/ 20 ppm. (aromatic-rich hydrocarbon mixes with > 25 % aromatics TRGS 901, No. 72).

Personal protective equipment - End user

- Respiratory protection: No personal respiratory protective equipment normally required.
- Hand protection: Elbow-length PVC or nitrile gloves.
- Eye protection: Face-shield or goggles.
- Skin and body protection: Cotton overall buttoned to the neck and wrist. Impervious footwear.

Engineering Controls

Advice on safe handling:

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No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.
Ensure adequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Suspension, opaque
Colour: Off-white
Odour: Strong, characteristic

Safety data

pH: 3.5 - 5.0 at 100 % (23 °C)
pH: 4.5 - 7.5 at 1 % (23 °C)
Flash point: No data available.
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.
Vapour pressure: No data available.
Relative vapour density: 1.00
The data refer to solvent naphtha petroleum.
Density: ca. 1.00 g/cm³ at 20 °C
Water solubility: Miscible
Partition coefficient: n-octanol/water: No data available
Viscosity, dynamic: <= 30 mPa.s at 20 °C
Velocity gradient 7.5 /s
Viscosity, kinematic: ca. 3 mm²/s at 40 °C
Surface tension: ca. 25.7 mN/m at 40 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: Extremes of temperature and direct sunlight.

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Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

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

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

Ecotoxicity effects

Toxicity to fish: LC₅₀ (*Cyprinus carpio* (Carp)) 0.0539 mg/L
Exposure time: 96 h
Toxicity to aquatic invertebrates: EC₅₀ (*Daphnia magna* (Water flea)) 0.00056 mg/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: 72 h
The value mentioned relates to the active ingredient deltamethrin.
Bioaccumulation: *Lepomis macrochirus* (Bluegill sunfish)
Bioconcentration factor (BCF): 1,400
The value mentioned relates to the active ingredient deltamethrin.

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
Class	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
Class	9
Subsidiary Risk	None
Packaging group	III
EmS	F-A , S-F
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

IATA

UN-Number	3082
Class	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994.

Australian Pesticides and Veterinary Medicines Authority approval number: 63246.

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information

Aqua-K-Othrine® is registered trademark of Bayer.

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.

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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.

Further details on the Occupational Exposure Standards mentioned in Section 8:

CEILING: Ceiling Limit Value

OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

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.

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.

SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.

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.

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

END OF MSDS