



COLIN CAMPBELL (CHEMICALS) PTY. LTD.

MATERIAL SAFETY DATA SHEET

Date of Issue: 1 February 2005

1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CAMPBELL KNOX-OUT FLOWABLE MICROENCAPSULATED INSECTICIDE
Other Names: None
Chemical Group: Organophosphorus
Recommended Use: Insecticide for use on indoor pests.
Supplier Details: Colin Campbell (Chemicals) Pty Ltd ABN 29 000 045 590
5 Blackfriar Place
Wetherill Park NSW 2164
Telephone: (02) 9725 2544
Fax: (02) 9604 7768
Email: cccsyd@campbellchemicals.com.au
Website: www.campbellchemicals.com.au
Contact: Product Development Manager – (02) 9725 2544
Emergency Telephone Number: (02) 9725 2544 – 8am to 6pm Monday to Friday.

2) HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE - DANGEROUS GOOD

Hazardous classification: Hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)
Risk phrases: R22 – Harmful if swallowed.
R50/53 – Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Safety phrases: See sections 4,5,6,7,8,10,12,13
ADG Classification 9
SUSDP classification: 5 (Standard for the Uniform Scheduling of Drugs & Poisons)

3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Diazinon	333-41-5	24%
Inert ingredients	Non hazardous	>60%

4) FIRST AID MEASURES

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

Inhalation: If inhaled remove to fresh air and keep at rest. Obtain urgent medical advice. If breathing is difficult, give artificial respiration or oxygen. If advised by a doctor or Poisons Information Centre, atropine tablets may be administered - give one atropine tablet 0.6mg every 5 minutes until dryness of the mouth occurs. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.



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4) FIRST AID MEASURES continued

- Skin Contact:** Carefully remove contaminated clothing. Wash affected areas with soap and water. Obtain urgent medical advice. If breathing is difficult, give artificial respiration or oxygen. If advised by a doctor or Poisons Information Centre, atropine tablets may be administered - give one atropine tablet 0.6mg every 5 minutes until dryness of the mouth occurs. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.
- Eye contact:** Check and remove any contact lenses. Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid.
- Ingestion:** Keep patient at rest and seek medical advice. Obtain urgent medical advice. If breathing is difficult, give artificial respiration or oxygen. If advised by a doctor or Poisons Information Centre, atropine tablets may be administered - give one atropine tablet 0.6mg every 5 minutes until dryness of the mouth occurs. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.
- First Aid facilities** Ensure eye wash and safety shower are available. Obtain an emergency supply of atropine tablets 0.6mg.
- Medical Attention:** Knox-Out contains diazinon which is an organophosphorus compound and is therefore a cholinesterase inhibitor. Symptoms can occur from one to three hours after exposure.
Symptoms of poisoning.
Mild poisoning - headache, blurred vision, weakness, sweating, mild chest pain, nausea and vomiting.
Severe poisoning - cyanosis (blueness of the skin), muscular twitching, spasms, miosis (pinpoint pupils) and respiratory paralysis.
Repeated minor exposure may have a cumulative poisoning effect.
Treatment
Basic aid, decontamination, symptomatic treatment and administration of antidote.
Antidote : Atropine sulphate, possibly in conjunction with toxogonin or obidoxime (PAM). Monitor respiratory, cardiac and central nervous system function. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms. Continued absorption of diazinon may occur and relapse may occur after initial improvement. VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.
Contraindications : Adrenergic derivatives. DO NOT give morphine or tranquilisers.

5) FIRE FIGHTING MEASURES

- Extinguishing media** Water spray, foam, dry chemical, carbon dioxide (CO₂)
- Hazard from combustion products** In a fire, formation of nitrogen and sulphur oxides, carbon monoxide, carbon dioxide, phosphorus pentoxide and dimethyl sulfide, can be expected.



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5) FIRE FIGHTING MEASURES *continued*

Precautions for fighting fires Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Do not release contaminated water into the environment.

Hazchem Code 2X

6) ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spill and absorb with earth, sand, clay or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc is unavoidable warn the local water authority. Diazinon can be hydrolysed in water by adjusting the pH to alkaline.

7) HANDLING AND STORAGE

Handling Keep out of reach of children. Will irritate eyes and skin. Avoid contact with eyes and skin. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and contaminated clothing.

Storage Store in the closed original container in a cool well ventilated area protected from frost and heat (<40°C). Do not store for prolonged periods in direct sunlight. Store in a locked room away from children, animals, food, animal feed, seed and fertilisers.

Flammability Not flammable. Not combustible.

8) EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards TLV for diazinon is 0.1 mg/m³. Skin notation.
Exposure standard – TLV refers to airborne concentrations of substances or levels of physical agents to which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.
Skin notation. - Absorption through the skin may be a significant source of exposure.

Biological Limit Values None allocated

Engineering Controls Use in a well ventilated area only and minimise contact.

Personal Protective Equipment

Eyes:	Safety goggles or face shield
Clothing:	Cotton overalls buttoned to the neck and wrists.
Gloves:	Elbow length chemical resistant PVC gloves
Respiratory:	Wear suitable respiratory equipment



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9) PHYSICAL AND CHEMICALS PROPERTIES

Appearance:	Viscous beige liquid
Odour:	Characteristic odour, "rotten fish"
Vapour pressure:	Not available
Vapour density:	Not available
Boiling point:	Not available
Freezing/Melting point:	Freeze at 0°C.
pH:	8-9 (concentrated product).
Solubility:	Faced with a microencapsulated formulation, some solvents favour the active ingredient extraction. Dispersible in water.
Specific gravity:	1.035 – 1.045 (kg/L) (25°C)
Flash point:	>100°C
Flammability (explosive) limit:	Not applicable
Auto ignition temperature:	Not applicable
Partition coefficient (octanol/water):	Not available.

10) STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Corrosive to mild steel and oxidisable metal due to presence of water. Avoid extreme high or low temperatures.
Incompatible materials :	Strong acids and strong bases, organic solvents.
Hazardous decomposition products:	In a fire, formation of nitrogen and sulphur oxides, phosphorus pentoxide, carbon monoxide and carbon dioxide can be expected.
Hazardous reactions:	Hazardous polymerisation may occur.

11) TOXICOLOGICAL INFORMATION

Individuals with allergy history should take extra care in handling this product.

Inhalation:	Inhalation may result in respiratory irritation.
Skin contact:	May cause sensitisation by prolonged skin contact.
Eye contact:	Practically non-irritating.
Ingestion:	May be harmful if ingested in large quantities.

ANIMAL TOXICITY DATA – PRODUCT

Acute:	
Oral toxicity	LD ₅₀ rat >5000mg/kg



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11) TOXICOLOGICAL INFORMATION continued

Dermal toxicity:	LD ₅₀ rat >2000mg/kg
Inhalation toxicity:	LC ₅₀ (4 hr) rat : >22.42 mg/L air.
Skin irritation:	Non irritant.
Irritation of mucous membranes:	No data
Sensitisation:	Not a skin sensitiser (Guinea pig).

Chronic:

Not carcinogenic, not mutagenic, not teratogenic in animal experiments.

12) ECOLOGICAL INFORMATION

Harmful to aquatic organisms and may cause adverse effects in the aquatic environment.
DO NOT contaminate streams, rivers or waterway with Knox-Out or the used containers.

Ecotoxicity:

Diazinon:

Fish toxicity:

LC₅₀ (96 h) in rainbow trout 2.6-3.2mg/L

Aquatic invertebrate toxicity:

No data

Algae toxicity:

No data

Bird toxicity:

LD₅₀ 2.75 – 40.8mg/L

**Environmental fate,
persistence and
degradability,
mobility**

Diazinon:

Medium to low mobility in the soil. Low persistence in soil. Rapidly degraded in biologically active soils. Diazinon is degraded in highly acidic water, less so in neutral pH water.

12) DISPOSAL CONSIDERATIONS

Triple or preferable pressure rinse containers before disposal. Add rinsings to the mixing tank. Do not dispose of undiluted chemical 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 500mm 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.



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13) TRANSPORT INFORMATION

UN Number: 3082
Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIAZINON)
Class and subsidiary risk: 9
Packing Group: III
EPG:
Hazchem code: 2X

14) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth).
Australian Pesticides and Veterinary Medicines Authority approval number: 40259

15) OTHER INFORMATION

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 the 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.

END OF MSDS