

Bayer Environmental Science
Material Safety Data Sheet
Perigen® Defence Residual Insecticide



Version / AUS
102000014424

Revision Date: 13.07.2011
Print Date: 18.07.2011

SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **PERIGEN® DEFENCE RESIDUAL INSECTICIDE**
Other names: None
Product code (UVP): 06069142
Recommended use: Insecticide

Chemical formulation: Emulsifiable concentrate (EC)

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): R65 - Harmful: may cause lung damage if swallowed.
R20/22 - Harmful by inhalation and if swallowed.
R43 - May cause sensitization by skin contact.

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

ADG Classification: "Dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. - 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: Permethrin 25:75 500 g/L

Chemical Name	CAS-No.	Concentration [%]
Permethrin	52645-53-1	53.00
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	35.51
Other ingredients (non-hazardous) to		

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100 %		
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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. When symptoms persist or in all cases of doubt seek medical advice. Oxygen or artificial respiration if needed.

Skin contact

Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned. If symptoms persist, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation or redness persists, see an ophthalmologist.

Ingestion

Rinse mouth. Do NOT induce vomiting. Keep patient warm and at rest. If symptoms persist, call a physician.

Notes to physician

Symptoms

Prolonged and repeated contact with skin, eyes or mucous membranes may cause irritation., Burning sensation, breathing difficulties, Airway hyperreaction, pulmonary oedema, Tachycardia, Hypotension, Palpitation, Nausea, Vomiting, Diarrhoea, Abdominal pain, Salivation, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Seizures, Convulsions, Tremors, Ataxia, Muscular fasciculation

Treatment

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.

Treat symptomatically.

Monitor: respiratory and cardiac functions.

ECG - monitoring (Electrocardiogram).

There is no specific antidote.

Contraindication: atropine.

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

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Foam

Dry powder

Water spray



Extinguishing media which should not be used for safety reasons

High volume water jet.

Hazards from combustion products

In the event of fire the following may be released:

Hydrogen chloride (HCl)

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Precautions for fire-fighting

Wear self-contained breathing apparatus and protective suit.

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.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem Code •3Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment.

Avoid contact with spilled product or contaminated surfaces.

Keep unauthorized people away.

Environmental precautions

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

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Handling

Hygiene measures:

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Take measures to prevent the build up of electrostatic charge.

Storage

Requirements for storage areas and containers:

Keep out of the reach of children.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep away from direct sunlight.

Flammability:

C1 Combustible Liquids Flash Point > 60 °C - <= 150 °C



SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Permethrin	52645-53-1	10 mg/m ³ (TWA)		OES BCS

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

Personal protective equipment - End user

- General advice: Eye wash facility and safety shower should be available.
- 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.

Engineering Controls

- Advice on safe handling:
Avoid contact with skin, eyes and clothing.
Use only in area provided with appropriate exhaust ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form: Liquid, clear
Colour: Yellow
Odour: Aromatic

Safety data

- pH: No data available.
- Flash point: No data available.
- Ignition temperature: No data available.
- Upper explosion limit: No data available.
- Lower explosion limit: No data available.
- Vapour pressure: No data available.
- Relative vapour density: No data available.
- Density: ca. 1.06 g/cm³ at 20 °C
- Water solubility: No data available.



Partition coefficient: n-octanol/water: No data available.

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid: Extremes of temperature and direct sunlight.

Materials to avoid: Strong oxidizing agents.

Hazardous decomposition products: Thermal decomposition can lead to release of:
Hydrogen chloride (HCl)
Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential health effects

Inhalation: Avoid breathing spray mist. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Skin: Mild skin irritant. Avoid contact with skin.

Eye: May cause eye irritation.

Ingestion: Harmful if swallowed.

Acute oral toxicity: LD₅₀ (rat) 1,479 mg/kg
The value mentioned relates to the active ingredient permethrin.

Acute dermal toxicity: LD₅₀ (rabbit) > 2,000 mg/kg
The value mentioned relates to the active ingredient permethrin.

Skin irritation: Mild skin irritation (rabbit).
The value mentioned relates to the active ingredient permethrin.

Eye irritation: Mild eye irritation (rabbit).
The value mentioned relates to the active ingredient permethrin.

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 (*Poecilia reticulata* (Guppy)) 0.0076 mg/L
Exposure time: 96 h
The value mentioned relates to the active ingredient permethrin.

Toxicity to aquatic invertebrates: EC₅₀ (*Daphnia magna* (Water flea)) 0.00017 mg/L
Exposure time: 48 h
The value mentioned relates to the active ingredient permethrin.



Toxicity to aquatic plants: EC₅₀ (*Selenastrum capricornutum*) 0.497 mg/L
Exposure time: 96 h
The value mentioned relates to the active ingredient permethrin.

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. (PERMETHRIN 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. (PERMETHRIN 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. (PERMETHRIN SOLUTION)



SECTION 15. REGULATORY INFORMATION

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

Australian Pesticides and Veterinary Medicines Authority approval number: 57184.

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information

Perigen® 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.

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