

Bayer Environmental Science
Material Safety Data Sheet
Crackdown® Residual Insecticide



Version / AUS
102000014058

Revision Date 28.11.2011

SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **Crackdown® Residual Insecticide**
Other names: None
Product code (UVP): 06068855
Recommended use: Insecticide

Chemical formulation: Suspo-emulsion (SE)

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-phrases: R43 - May cause sensitization by skin contact.
S-phrases: See sections 4, 5, 6, 7, 8, 10, 13.
ADG Classification: Not a "Dangerous good" 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, Crackdown Residual Insecticide is a MARINE POLLUTANT. See Section 14.
SUSMP classification (Poison Schedule): Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Deltamethrin 10 g/L, d-Tetramethrin 20:80 10 g/L, Piperonyl butoxide 80 g/L

Chemical Name	CAS-No.	Concentration [%]
Deltamethrin	52918-63-5	0.99
d-Tetramethrin	7696-12-0	0.99
Piperonyl butoxide	51-03-6	7.97
1,2-Propanediol	57-55-6	5.68

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Mixture of 5-Chlor-2-methyl-3(2H)-isothiazolon and 2-Methyl-2H-isothiazol-3-on	55965-84-9	0.02
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.

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. If signs of poisoning occur, call a physician immediately.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Eye treatment by an ophthalmologist.

Ingestion

Rinse mouth. Do NOT induce vomiting. Keep at rest. Obtain medical attention. Call a physician or poison control center immediately.

Notes to physician

Symptoms

Burning sensation, 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

Treat symptomatically.
Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.
ECG - monitoring (Electrocardiogram).
Contraindication: atropine.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

- Water spray
- Carbon dioxide (CO₂)
- Foam
- Dry chemical

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:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- nitrogen oxides (NO_x)
- Hydrogen chloride (HCl)
- Hydrogen cyanide (hydrocyanic acid)

Precautions for fire-fighting

- Wear self-contained breathing apparatus and protective suit.
- Cool closed containers exposed to fire with water spray.
- Whenever possible, contain fire-fighting water by diking area with sand or earth.
- Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem Code •3Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- An emergency shower must be readily accessible to the work area.
- 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.
- Contain contaminated water and fire fighting water.
- If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 7. HANDLING AND STORAGE

Handling

- Hygiene measures:
 - Avoid contact with skin, eyes and clothing.

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.
 - Protect from frost.

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		OES BCS
Propylene glycol	57-55-6	10 mg/m ³ mist		Manufacturer

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

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Personal protective equipment - End user

General advice: Eye wash facility and safety shower should be available.
Keep and wash PPE separately from other laundry.

Hand protection: Elbow-length PVC or nitrile gloves.

Eye protection: Face-shield.

Skin and body protection: Cotton overall buttoned to the neck and wrist.
Washable hat.

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
Colour: White
Odour: No data available

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. 1.00 g/cm³ at 20 °C

Water solubility: No data available

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

SECTION 10. STABILITY AND REACTIVITY

Materials to avoid: Oxidizing agents
Strong acids
Bases
Iron



Hazardous decomposition products:

Thermal decomposition can lead to release of:
oxides of carbon
nitrogen oxides (NO_x)
Hydrogen chloride (HCl)
Hydrogen cyanide (hydrocyanic acid)

SECTION 11. TOXICOLOGICAL INFORMATION

Potential health effects

- Inhalation: Avoid breathing spray mist. May cause irritation of the mucous membranes.
- Skin: Irritant. Can cause irritation to the skin resulting in effects such as burning and/or tingling sensation.
- Eye: May cause eye irritation.
- Ingestion: May be harmful if swallowed. May cause nausea, vomiting, abdominal pain.
- Acute oral toxicity: LD₅₀ (rat) > 10,000 mg/kg
Test conducted with a similar formulation.
- Acute oral toxicity: LD₅₀ (rat) 4,570 mg/kg males; 7,220 mg/kg females
The value mentioned relates to the active ingredient piperonyl butoxide.
- Acute oral toxicity: LD₅₀ (rat) > 5,000 mg/kg
The value mentioned relates to the active ingredient d-tetramethrin.
- Acute oral toxicity: LD₅₀ (rat) 87 mg/kg
The value mentioned relates to the active ingredient deltamethrin.
- Acute inhalation toxicity: LC₅₀ (rat) 0.6 mg/L
Exposure time: 6 h
The value mentioned relates to the active ingredient deltamethrin.
- Acute inhalation toxicity: LC₅₀ (rat) > 5.9 mg/L
Exposure time: 4 h
The value mentioned relates to the active ingredient piperonyl butoxide.
- Acute inhalation toxicity: LC₅₀ (rat) > 1.18 mg/L
Exposure time: 4 h
The value mentioned relates to the active ingredient d-tetramethrin.
- Acute dermal toxicity: LD₅₀ (rat) > 10,000 mg/kg
Test conducted with a similar formulation.
- Acute dermal toxicity: LD₅₀ (rat) > 2,000 mg/kg
The value mentioned relates to the active ingredient deltamethrin.
- Acute dermal toxicity: LD₅₀ (rat) > 5,000 mg/kg
The value mentioned relates to the active ingredient d-tetramethrin.

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Acute dermal toxicity:	LD ₅₀ (rabbit) > 2,000 mg/kg The value mentioned relates to the active ingredient piperonyl butoxide.
Skin irritation:	No skin irritation (rabbit). The value mentioned relates to the active ingredient deltamethrin.
Skin irritation:	No skin irritation (rabbit). The value mentioned relates to the active ingredient d-tetramethrin.
Eye irritation:	No eye irritation (rabbit). The value mentioned relates to the active ingredient deltamethrin.
Sensitisation:	Non-sensitizing (guinea pig). The value mentioned relates to the active ingredient deltamethrin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish:	LC ₅₀ (<i>Oncorhynchus mykiss</i> (Rainbow trout)) 0.00091 mg/L Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to fish:	LC ₅₀ (<i>Oncorhynchus mykiss</i> (Rainbow trout)) 0.01 mg/L The value mentioned relates to the active ingredient d-tetramethrin.
Toxicity to fish:	LC ₅₀ (<i>Cyprinodon variegatus</i>) 3.94 mg/L Exposure time: 96 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to aquatic invertebrates:	EC ₅₀ (<i>Daphnia magna</i> (Water flea)) 0.00056 mg/L Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates:	EC ₅₀ (<i>Daphnia magna</i> (Water flea)) 0.51 mg/L Exposure time: 48 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to aquatic plants:	EC ₅₀ (96 h) (Algae) > 9.1 mg/L Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic plants:	IC ₅₀ (<i>Selenastrum capricornutum</i> (Algae)) 2.09 mg/L Exposure time: 72 h The value mentioned relates to the active ingredient piperonyl butoxide.

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

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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: 45907.

See also Section 2.



SECTION 16. OTHER INFORMATION

Trademark information

Crackdown® 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