

Bayer Environmental Science
Material Safety Data Sheet
Cislin® Residual Insecticide



Version / AUS

Revision Date 27.01.2012

SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **Cislin® 25 Residual Insecticide**
 Other names: None
 Product code (UVP): NA
 Recommended use: Insecticide

Chemical formulation: Suspension Concentrate (=flowable concentrate) (SC)

Company: Bayer Environmental Science
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SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

HAZARDOUS SUBSTANCE DANGEROUS GOODS

Hazardous classification: Hazardous (National Occupational Health and Safety Commission - NOHSC).

R-phrase(s): R43 - May cause sensitization by skin contact.

S-phrase(s): 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, Cislin 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

Chemical Name	CAS-No.	Concentration [%]
Deltamethrin	52918-63-5	1.00
1,2-Propanediol	57-55-6	6.00
Aqueous mixture of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC	55965-84-9	~0.25



no. 220-239-6] (3:1)		
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. If symptoms persist, call a physician. 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 Vit E may be considered. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned. 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. If eye irritation or redness persist, see an ophthalmologist.

Ingestion

Rinse mouth. Do NOT induce vomiting. Keep patient warm and at rest. If symptoms persist, call a physician. If conscious give immediately one glass of water to drink.

Notes to physician

Symptoms

Burning sensation, burns on skin and mucosal tissues, 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).
There is no specific antidote.
Elimination by dialysis (forced alkaline diuresis).
Contraindication: atropine.
In case of irritation, application of oils or lotions containing vitamin E may be considered.
Contraindication: derivatives of adrenaline.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

- Water spray
- Carbon dioxide (CO₂)
- Foam



Dry chemical

Hazards from combustion products

In the event of fire the following may be released:

- Hydrogen cyanide (hydrocyanic acid)
- Hydrogen bromide (HBr)
- Nitrogen oxides (NO_x)
- 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

- Avoid contact with spilled product or contaminated surfaces.
- When dealing with spillage do not eat, drink or smoke.
- Use personal protective equipment.
- Keep unauthorized people away.

Environmental precautions

- Contain contaminated water and fire fighting water.
- If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up

- Dike area to prevent runoff.
- Collect and transfer product into a properly labeled and tightly closed container.

Additional advice

- Inform appropriate authorities immediately if contamination occurs.
- Information regarding safe handling, see Section 7.
- Information regarding personal protective equipment, see Section 8.
- Information regarding waste disposal, see Section 13.

SECTION 7. HANDLING AND STORAGE

Handling

- Hygiene measures:
 - Avoid contact with skin, eyes and clothing.
 - Keep away from food, drink and animal feedingstuffs.

Storage

- Requirements for storage areas and containers:
 - Keep out of the reach of children.
 - Store in a cool, dry place and in such a manner as to prevent cross contamination with other

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crop protection products, fertilizers, food and feed.
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
1,2-Propanediol (Total vapour and particulates)	57-55-6	474 mg/m ³ / 150 ppm	08 2005	AU OEL
1,2-Propanediol (Particulate)	57-55-6	10 mg/m ³ (TWA)	08 2005	AU OEL

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.

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:

Use only in area provided with appropriate exhaust ventilation.
Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Liquid
Colour: White
Odour: Practically no odour

Safety data

pH: <6 (undiluted)
Flash point: No data available
Ignition temperature: No data available
Upper explosion limit: No data available
Lower explosion limit: No data available

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Vapour pressure:	As water
Relative vapour density:	No data available
Density:	ca. 1.01 g/cm ³ at 20 °C
Water solubility:	Forms a suspension
Partition coefficient: n-octanol/water:	No data available

SECTION 10. STABILITY AND REACTIVITY

Materials to avoid:	Oxidizing agents Strong acids Alkali metals
Hazardous decomposition products:	Hydrogen cyanide (hydrocyanic acid) Hydrogen bromide (HBr) Nitrogen oxides (NO _x) Carbon oxides
Hazardous reactions:	No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential health effects

Inhalation:	Inhalation not likely. May cause irritation of the mucous membranes.
Skin:	May irritation by skin contact.
Eye:	May cause slight irritation.
Ingestion:	May be harmful if swallowed.
Acute oral toxicity:	LD ₅₀ (rat) >10,000 mg/kg
Acute inhalation toxicity:	LC ₅₀ (rat) 2.3 mg/L Exposure time: 4 h
Acute dermal toxicity:	LD ₅₀ (rat) > 10,000 mg/kg
Skin irritation:	Slight irritant (rabbit).
Eye irritation:	No eye irritation (rabbit).
Sensitisation:	Not sensitising (guinea pig).



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 aquatic invertebrates:	EC ₅₀ (Water flea (<i>Daphnia magna</i>)) 0.00056 mg/L Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic plants:	EC ₅₀ (Algae) > 9.1 mg/L Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Bioaccumulation:	<i>Lepomis macrochirus</i> (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: 32223.

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information

Cislin® 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.

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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