

Bayer CropScience
Safety Data Sheet
Hoegrass® 500 Selective Herbicide



Version 1 / AUS
102000003145

Revision Date: 23.05.2013
Print Date: 23.05.2013

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name	Hoegrass® 500 Selective Herbicide
Other names	none
Product code (UVP)	05946220
Chemical Group	aryloxyphenoxypropionate
Recommended use	Herbicide
Chemical Formulation	Emulsifiable concentrate (EC)
Company	Bayer Cropscience Pty Ltd –ABN 87 000 226 022 391-393 Tooronga Road, East Hawthorn Victoria 3123, Australia
Telephone	(03) 9248 6888
Technical Information Service	1800 804 479
Facsimile	(03) 9248 6800
Website	www.bayercropscience.com.au
Emergency telephone no.	1800 033 111 Orica SH&E Shared Services

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

HAZARDOUS SUBSTANCE

DANGEROUS GOODS

Hazardous classification	Hazardous (National Occupational Health and Safety Commission - NOHSC)
R-phrases(s)	R36 - Irritating to eyes. R65 - Harmful: may cause lung damage if swallowed. R66 - Repeated exposure may cause skin dryness or cracking.
S-phrases(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
Diclofop-methyl 500g/l

Chemical Name	CAS-No.	Concentration [%]
Diclofop-methyl	51338-27-3	45.87
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	>= 30.00 - <= 35.00
Naphthalene	91-20-3	>= 1.00 - <= 5.00
N-Methyl-2-pyrrolidone	872-50-4	>= 5.00 - <= 10.00
Dodecyl benzene sulphonate, calcium salt	26264-06-2	3.00

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2-Ethylhexanole	104-76-7	2.00
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 Safety Data Sheet to the doctor.

Inhalation

Move to fresh air. Keep patient warm and at rest. Oxygen or artificial respiration if needed. When symptoms persist or in all cases of doubt seek medical advice.

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 symptoms persist, call a physician.

Eye contact

Remove contact lens and rinse eyes immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion

Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Keep patient warm and at rest. Do not induce vomiting or give anything by mouth to an unconscious person. Obtain medical attention.

Notes to physician

Symptoms

Local: Skin, eye and mucous membrane irritation, Systemic: Headache, Nausea, Dizziness, Drowsiness, Confusion, Inhalation of high vapour concentrations can cause CNS-depression and narcosis., Aspiration may cause pulmonary oedema and pneumonitis.

Treatment

Monitor: kidney, liver and pancreas function.
Treat symptomatically.
Activated charcoal and cathartics like sorbitol or magnesium sulphate should be given.
In case of aspiration intubation and bronchial lavage should be considered.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Water spray
Foam
Dry chemical

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.
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 a spillage do not eat, drink or smoke.
Remove all sources of ignition.
Use personal protective equipment.
Keep unauthorized people away.

Environmental precautions

Contain contaminated water and fire fighting water.
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).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly, observing environmental regulations.

Reference to other sections

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

After each day's use, wash gloves, face shield or goggles and contaminated clothing.
Wash hands before breaks and immediately after handling the product.
Remove soiled clothing immediately and clean thoroughly before using again.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

Storage

Requirements for storage areas and containers

Keep out of the reach of children.
Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from direct sunlight.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

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
Naphthalene	91-20-3	10 ppm (TWA)		OES BCS
Naphthalene	91-20-3	79 mg/m ³ / 15 ppm (STEL)	08 2005	AU OEL

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Naphthalene	91-20-3	52 mg/m ³ / 10 ppm (TWA)	08 2005	AU OEL
N-Methyl-2-pyrrolidone	872-50-4	19 ppm (TWA)		OES BCS
N-Methyl-2-pyrrolidone	872-50-4	309 mg/m ³ / 75 ppm (STEL)	08 2005	AU OEL
N-Methyl-2-pyrrolidone	872-50-4	103 mg/m ³ / 25 ppm (TWA)	08 2005	AU OEL

N-Methyl-2-pyrrolidone 872-50-4 Skin designation: Can be absorbed through the skin.

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

Biological limit values
none

Personal protective equipment - End user

General advice	Eye wash facility and safety shower should be available.
Respiratory protection	AS/NZS 1715/1716 approved respirator Use respiratory protection for organic vapours.
Hand protection	Elbow-length PVC or nitrile gloves
Eye protection	Goggles
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.
Provide for appropriate exhaust ventilation and dust collection at machinery.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Liquid, clear
Colour	brown
Odour	naphthalene-like

Safety data

pH	4 - 6 at 1 %
Flash point	87 °C
Ignition temperature	> 450 °C The data refer to the solvent.
Upper explosion limit	7 %(V) The data refer to the solvent.

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Lower explosion limit	0.6 %(V) The data refer to the solvent.
Vapour pressure	no data available
Relative vapour density	no data available
Density	ca. 1.13 g/cm ³ at 20 °C
Water solubility	emulsifiable
Partition coefficient: n-octanol/water	no data available

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Strong oxidizing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Hydrogen chloride (HCl) Carbon monoxide Carbon dioxide (CO ₂)
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation	Low acute inhalation toxicity. Inhalation of high concentrations of solvent vapors can cause nausea, vomiting, dizziness, drowsiness and incoordination. Inhalation of high vapour concentrations can cause CNS-depression and narcosis.
Skin	May cause skin irritation. Low acute dermal toxicity. Prolonged skin contact may cause skin irritation and/or dermatitis.
Eye	Causes eye irritation.
Ingestion	Harmful if swallowed. Small amounts of the solvent in this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.
Acute oral toxicity	LD ₅₀ (rat) > 2,000 mg/kg Test conducted with a similar formulation.
Acute inhalation toxicity	no data available
Acute dermal toxicity	LD ₅₀ (rat) > 5,000 mg/kg Test conducted with a similar formulation.



Skin irritation	Slight irritation (rabbit) Test conducted with a similar formulation.
Eye irritation	Slight irritation (rabbit) Test conducted with a similar formulation.
Sensitisation	Sensitising (guinea pig) Test conducted with a similar formulation.
Chronic toxicity	Diclofop-methyl did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Diclofop-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Diclofop-methyl caused at high dose levels an increased incidence of tumours in the following organ(s): liver. The tumours seen with Diclofop-methyl were caused through peroxisome proliferation. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

This product contains $\geq 1\%$ naphthalene. Naphthalene caused an increased incidence of tumours after chronic inhalation of high vapour concentrations in the following organ: Respiratory Tract. The tumours seen with naphthalene were caused through a non-genotoxic mechanism, which is not relevant at low doses.

Assessment Toxicity to Reproduction

Diclofop-methyl did not cause reproductive toxicity in a two-generation study in rats.

Diclofop-methyl: No indications of reprotoxic effects were observed in reproduction studies in animals.

Assessment developmental toxicity

Diclofop-methyl caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Diclofop-methyl are related to maternal toxicity.

Diclofop-methyl: No indication of developmental toxicity in animal tests.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.15 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient diclofop-methyl.
Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.23 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient diclofop-methyl.
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) 0.23 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient diclofop-methyl.

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Toxicity to aquatic plants	EC50 (Desmodemus subspicatus) 1.5 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient diclofop-methyl.
Toxicity to other organisms	LD50 (Coturnix japonica (Japanese quail)) > 10,000 mg/kg The value mentioned relates to the active ingredient diclofop-methyl.
Biodegradability	Moderately/partially biodegradable. The value mentioned relates to the active ingredient diclofop-methyl.
Stability in soil	In various soils in Field trial: DT50 1 - 57 d. It has a low potential for leaching into groundwater or moving to deeper soil layers. The value mentioned relates to the active ingredient diclofop-methyl. In various soils in Field trial: DT90 30 - 281 d. It has a low potential for leaching into groundwater or moving to deeper soil layers. The value mentioned relates to the active ingredient diclofop-methyl.
Bioaccumulation	no data available
Additional Environmental Information	no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Refillable containers:

Empty contents fully into application equipment. Close all valves and return to point of purchase. Refer to product label for further information.

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. (DICLOFOP-METHYL/SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC 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

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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. (DICLOFOP-METHYL/SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC 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. (DICLOFOP-METHYL/SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION)

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994

Australian Pesticides and Veterinary Medicines Authority approval number: 52142

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information Hoegrass® is a registered trademark of the Bayer Group.

This SDS 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 SDS 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.

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

CEILING: Ceiling Limit Value

OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

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.
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END OF SDS