



SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name	Giant® Selective Herbicide
Other names	none
Product code (UVP)	05953979
Chemical Group	Phenoxy Nicotinamide
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-phrase(s)	R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed. R36/38 - Irritating to eyes and skin.
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 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
 MCPA/Diflufenican 230:21 g/l

Chemical Name	CAS-No.	Concentration [%]
MCPA 2-ethylhexyl ester	29450-45-1	38.30
Diflufenican	83164-33-4	2.12
Heptyl acetate	90438-79-2	>= 35.00 - <= 40.00
N-Methyl-2-pyrrolidone	872-50-4	>= 15.00 - <= 20.00
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 the victim to fresh air and keep at rest. When symptoms persist or in all cases of doubt seek medical advice. In case of respiratory arrest induce breathing with a respiratory device. 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 signs of poisoning occur, call a physician immediately.

Eye contact

Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion

Rinse mouth. Do NOT induce vomiting. If conscious give immediately one glass of water to drink. Keep patient warm and at rest. Obtain medical attention. Never give anything by mouth to an unconscious person.

Notes to physician

Symptoms

Local:, Sensitisation, Irritation, Systemic:, Headache, Vomiting, Lethargy, Muscular fasciculation, Liver and kidney injuries may occur., Hypotension, Stupor, Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache)., Coma, Respiratory failure

Treatment

Treat symptomatically.
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.
Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.
Oxygen or artificial respiration if needed.
Forced alkaline diuresis and hemodialysis may be considered.
There is no specific antidote.
Recovery is spontaneous and without sequelae.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazards from combustion products

In the event of fire the following may be released:
Hydrogen fluoride
Hydrogen chloride (HCl)
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)

Precautions for fire-fighting



In the event of fire, wear self-contained breathing apparatus.
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.
Evacuate personnel to safe areas.
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.
Use personal protective equipment.
Keep people away from and upwind of spill/leak.
Evacuate and isolate spill area.

Environmental precautions

If the product contaminates rivers and lakes or drains inform respective authorities.
Do not allow to get into surface water, drains and ground water.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Dike area to prevent runoff.
Collect and transfer the product into a properly labelled and tightly closed container.
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

Avoid contact with skin, eyes and clothing.
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove and wash contaminated gloves, including the inside, before re-use.
After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.
Vapours are heavier than air and may spread along floors.
Evaporating product is heavier than air and remains at ground level. Even remote sources of ignition may be dangerous.

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
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

Respiratory protection AS/NZS 1715/1716 approved respirator
 Use respiratory protection for organic vapours.

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
 Washable hat

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form Liquid, clear
Colour light to dark brown
Odour aromatic

Safety data

pH no data available

Flash point > 66 °C
 Information refers to the solvent.

Ignition temperature 321 °C
 The data refer to the solvent.

Upper explosion limit 6.7 %(V)
 The data refer to the solvent.

Lower explosion limit 0.8 %(V)
 The data refer to the solvent.

Vapour pressure 3.4 hPa
 The data refer to the solvent.



Relative vapour density	no data available
Density	ca. 0.99 g/cm ³ at 20 °C
Water solubility	emulsifiable
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	Acids Bases Oxidizing agents Reducing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Hydrogen fluoride Hydrogen chloride (HCl) Carbon oxides Nitrogen oxides (NO _x)
Hazardous reactions	Exothermic reaction.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Inhalation	Harmful if inhaled. Mists may cause respiratory tract irritation.
Skin	Harmful if absorbed through skin. Irritating to skin.
Eye	Causes eye irritation.
Ingestion	Harmful if swallowed.
Acute oral toxicity	LD ₅₀ (rat) 1,580 mg/kg Information given is based on data obtained from similar substances.
Acute inhalation toxicity	LC ₅₀ (rat) > 5.11 mg/l Exposure time: 4 h The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.
Acute inhalation toxicity	LC ₅₀ (rat) > 5.12 mg/l Exposure time: 4 h The value mentioned relates to the active ingredient diflufenican.
Acute dermal toxicity	LD ₅₀ (rat) > 2,040 mg/kg Information given is based on data obtained from similar substances.
Skin irritation	Moderate skin irritation. (rabbit) Information given is based on data obtained from similar substances.



Eye irritation	Slight irritation (rabbit) Information given is based on data obtained from similar substances.
Sensitisation	Sensitising (guinea pig) Information given is based on data obtained from similar substances.
Chronic toxicity	MCPA-2-ethylhexyl ester did not cause specific target organ toxicity in experimental animal studies. Diflufenican did not cause specific target organ toxicity in experimental animal studies.
Assessment Mutagenicity	MCPA-2-ethylhexyl ester was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. Diflufenican was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Assessment Carcinogenicity	MCPA-2-ethylhexyl ester was not carcinogenic in lifetime feeding studies in rats and mice. Diflufenican was not carcinogenic in lifetime feeding studies in rats and mice.
Assessment Toxicity to Reproduction	MCPA-2-ethylhexyl ester did not cause reproductive toxicity in a two-generation study in rats. Diflufenican did not cause reproductive toxicity in a two-generation study in rats.
Assessment developmental toxicity	MCPA-2-ethylhexyl ester caused developmental toxicity only at dose levels toxic to the dams. MCPA-2-ethylhexyl ester caused a delayed foetal growth. Diflufenican did not cause developmental toxicity in rats and rabbits.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 50 - 560 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.
Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) > 150 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.
Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) > 0.109 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient diflufenican.
Toxicity to aquatic invertebrates	LC50 (Daphnia) > 190 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.



Toxicity to aquatic invertebrates	LC50 (Water flea (Daphnia magna)) > 0.240 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient diflufenican.
Toxicity to aquatic plants	EC50 (Selenastrum capricornutum) > 392 mg/l The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.
Toxicity to aquatic plants	EC50 (Algae) > 10 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient diflufenican.
Toxicity to other organisms	LC50 (Colinus virginianus (Bobwhite quail)) 377 mg/kg The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.
Toxicity to other organisms	LD50 (Colinus virginianus (Bobwhite quail)) > 2,150 mg/kg The value mentioned relates to the active ingredient diflufenican.
Biodegradability	Readily biodegradable. The value mentioned relates to N-methyl-2-pyrrolidone.
Biodegradability	Not readily biodegradable. The value mentioned relates to the active ingredient diflufenican.
Stability in soil	In Soil : DT50 < 7 d. The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester. DT50 85.6 - 282 d. Depending on soil type and water content. The value mentioned relates to the active ingredient diflufenican.
Bioaccumulation	Bioconcentration factor (BCF): 1.60 The value mentioned relates to the active ingredient diflufenican.
Additional Environmental Information	no data available

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.
(DIFLUFENICAN 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.
(DIFLUFENICAN 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.
(DIFLUFENICAN SOLUTION)

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 53728
See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information Giant® 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.



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.

END OF SDS