SAFETY DATA SHEET

NUFARM GLYPHOSATE 450 SL

Infosafe No.: 3NV4E
ISSUED Date : 09/01/2024
ISSUED by: NUFARM AUSTRALIA LIMITED.

Section 1 - Identification

Product Identifier
NUFARM GLYPHOSATE 450 SL

Product Code
0474,0508,0508SL

Company Name
NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)

Address
103-105 Pipe Road Laverton North
Victoria 3026 AUSTRALIA

Telephone/Fax Number
Tel: +61 3 9282-1000
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Emergency Phone Number
1800 033 498 (24hr Australia)

Emergency Contact Name
www.nufarm.com.au

E-mail Address
SDSANZ@nufarm.com

Recommended use of the chemical and restrictions on use
A non-selective herbicide that will kill most emerged weeds and plants in situations as indicated in the directions for use.

Other Information
This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture
Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2

Hazard Statement (s)
H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)
Environment

Precautionary Statement–Prevention
P273 Avoid release to the environment.

Precautionary Statement–Response
P391 Collect spillage.

Precautionary Statement–Disposal
P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Glyphosate (as monomethylamine, ammonium and potassium salts)	1071-83-6	450 g/L
Surfactant		3-5 %
Ingredients determined not to be hazardous		Balance

Section 4 - First Aid Measures

Inhalation
If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion
Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin
Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye
If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities
Eyewash and normal washroom facilities.

Advice to Doctor
Treat symptomatically.

Other Information
For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media
Use appropriate fire extinguisher for surrounding environment.

Unsuitable Extinguishing Media
Do not use water jet.

Hazards from Combustion Products
Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen or phosphorus.

Specific hazards arising from the chemical
This product is non combustible. However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn.

Special Protective Equipment and Precautions for Firefighters
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Hazchem Code
•3Z

Decomposition Temperature
Not available

Section 6 - Accidental Release Measures

Emergency Procedures
Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. Final clean-up with degreasing agent or detergent is advised.

Section 7 - Handling and Storage

Precautions for Safe Handling
Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.
Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.

Other Information
Always read the label and any attached leaflet before use.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values
No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Monitoring
No biological limits allocated.

Control Banding
Not available

Engineering Controls
Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.

Respiratory Protection
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.
Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection
Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.
Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection
Wear gloves of impervious material such as nitrile or PVC. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.
Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards
No further relevant information available.

Body Protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Requirements Concerning Special Training
Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	**Appearance**	Dark blue liquid
Colour	Dark blue	**Odour**	No odour
Melting Point	Not available	**Boiling Point**	>105°C
Decomposition Temperature	Not available	**Solubility in Water**	Soluble
Specific Gravity	1.120-1.230	**pH**	4.4-4.75
Vapour Pressure	Not available	**Relative Vapour Density (Air=1)**	Not available
Evaporation Rate	Not available	**Odour Threshold**	Not available
Viscosity	Not available	**Volatile Component**	Not available
Partition Coefficient: n-octanol/water (log value)	Not available	**Flash Point**	None
Flammability	Non combustible material	**Auto-Ignition Temperature**	Not available
Explosion Limit - Upper	Not available	**Explosion Limit - Lower**	Not available
Explosion Properties	Not available	**Oxidising Properties**	Not available
Particle Characteristics	Not available		

Section 10 - Stability and Reactivity

Reactivity
Reacts with incompatible materials.

Chemical Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Extremes of temperature and direct sunlight.

Incompatible Materials
Corrosive to mild steel, galvanised steel and zinc.
Non corrosive to stainless steel, polyethylene and plastics.

Hazardous Decomposition Products
Thermal decomposition may result in the release of toxic and/or irritating fumes.

Section 11 - Toxicological Information

Toxicology Information
Toxicity data for material given below.

Acute Toxicity - Oral
LD50 (rat): >5000 mg/kg for a similar formulation.

Acute Toxicity - Dermal
LD50 (rabbits): >2000 mg/kg for a similar formulation

Acute Toxicity - Inhalation
LC50 (rat): >5 mg/l/4h for for a similar formulation.

Ingestion
Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
The concentrate is of low toxicity if swallowed.
Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
Ingestion of a large quantity of the undiluted product may result in hypotension and pulmonary oedema.

Inhalation
Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Skin
May be irritating to skin. The symptoms may include redness, itching and swelling.
Prolonged contact is likely to result in irritation.

Eye
May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory Sensitisation
Not expected to be a respiratory sensitiser.

Skin Sensitisation
Not expected to be a skin sensitiser.

Germ Cell Mutagenicity
Not considered to be a mutagenic hazard.

Carcinogenicity
Not considered to be a carcinogenic hazard.

Glyphosate is listed as a Group 2A: Probably carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity
Not considered to be toxic to reproduction.

STOT - Single Exposure
Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure
Not expected to cause toxicity to a specific target organ.

Aspiration Hazard
Not expected to be an aspiration hazard.

Other Information
The Australian Acceptable Daily Intake (ADI) for glyphosate for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 30 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. Ref: Australian Pesticides and Veterinary Medicines Authority (APVMA) December 2023.

Section 12 - Ecological Information

Ecotoxicity
The available ecological data is given below.

Persistence and degradability
Average field half life of glyphosate is 47 days.
Adsorption studies indicate that glyphosate has very low mobility.

Mobility
Not available

Bioaccumulative Potential
Not available

Other Adverse Effects
Not available

Environmental Protection
Do not spray in high winds. Glyphosate is a non-selective contact herbicide.
Spray drift can cause damage, read the label for more information.
Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish
The following is data for a similar product.
LC50 (96hr) for bluegill sunfish is 5.8 - 14 mg/l.
LC50 (96hr) for rainbow trout is 8.2 - 26 mg/l.
LC50 (96hr) for fathead minnow is 9.4 mg/l.
TL50 (96hr) carp is 19.7 ppm

Acute Toxicity - Other Organisms
The following data is for the active ingredient, glyphosate.
Birds: Not toxic to birds.
LD50 for bobwhite quail is >3850 mg/kg
Bees: Not toxic to bees.
LD50 >100 µg/bee.

Hazardous to the Ozone Layer
This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations
Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.
To minimise personal exposure, refer to Section 8 - Exposure Controls and Personal Protection.

Product Disposal
On site disposal of the concentrated product is not acceptable.

Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Container Disposal and Methods
Do not use this container for any other purpose.
Empty containers and product should not be burnt.

Section 14 - Transport Information

Transport Information
Road and Rail Transport (ADG Code):
This material is classified as Dangerous Goods Class 9 Miscellaneous Dangerous Goods
Class 9: Miscellaneous substances Dangerous Goods are incompatible in a placard load with any of the following:
Class 1: Explosives (when the class 9 substance is a fire risk substance) Division 5.1: Oxidising substances (when the class 9 substance is a fire risk substance) and
Division 5.2: Organic peroxides (when the class 9 substance is a fire risk substance)
Note: Special Provision AU01:
Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Marine Transport (IMO/IMDG):
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
Class/Division: 9
UN No: 3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Glyphosate (as monomethylamine, ammonium and potassium salts)) (MARINE POLLUTANT)

Packing Group: III
EMS: F-A, S-F
Special Provisions: 274, 335, 969

Air Transport (ICAO/IATA):
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Class/Division: 9
UN No: 3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.(Contains Glyphosate (as monomethylamine, ammonium and potassium salts))
Packing Group: III
Label: Miscellaneous
Packaging Instructions (passenger & cargo): 964
Packaging Instructions (cargo only): 964
Special provisions: A97, A158, A197, A215

UN Number
3082

Proper Shipping Name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.Contains Glyphosate (as monomethylamine, ammonium and potassium salts)

Transport Hazard Class
9

Packing Group
III

Hazchem Code
•3Z

IERG Number
47

Special Precautions for User
Not available

IMDG Marine pollutant
Yes

Transport in Bulk
Not available

Section 15 - Regulatory Information

Regulatory Information
Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.
Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
WHS regulations (2011) - Schedule 11: classification not listed.

Poisons Schedule
S5

Montreal Protocol
Not listed

Stockholm Convention
Not listed

Rotterdam Convention
Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)
Not available

Agricultural and Veterinary Chemicals Act 1994

APVMA product number: 93156.
This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA).

Basel Convention
Not listed

Section 16 - Any Other Relevant Information

Date of Preparation
SDS Created: January 2024.

Version Number
1.0

Literature References
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
Standard for the Uniform Scheduling of Medicines and Poisons.
Australian Code for the Transport of Dangerous Goods by Road & Rail.
Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Code of Practice for Supply Diversion into Illicit Drug Manufacture.
National Code of Practice for Chemicals of Security Concern.
Agricultural Compounds and Veterinary Chemicals Act.
International Agency for Research on Cancer (IARC) Monographs.
Montreal Protocol on Substances that Deplete the Ozone Layer.
Stockholm Convention on Persistent Organic Pollutants (POPs).
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.
International Air Transport Association (IATA) Dangerous Goods Regulations.
International Maritime Dangerous Goods (IMDG) Code.
Workplace exposure standards for airborne contaminants.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).
Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).
Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

Contact Person/Point
Normal hours: SDS coordinator : Phone +61 3 9282 1000
After hours: Shift supervisor : Phone 1800 033 498

User Codes

User Title Label	User Codes
Field 4	Y

END OF SDS