

NUFARM UNITY 240 HERBICIDE

Infosafe No.: 3NV0V
ISSUED Date : 19/02/2024
ISSUED by: NUFARM AUSTRALIA LIMITED.

Section 1 - Identification

Product Identifier

NUFARM UNITY 240 HERBICIDE

Product Code

0827

Product Type

Group 14 Herbicide

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

For the control of certain annual broadleaf weeds in winter cereals and pyrethrum as per the Directions For Use table on the label.

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

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Complies with the requirements of Special Provision AU01 and therefore exempted from being classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Classified as Dangerous Goods according to International Maritime Dangerous Goods Code (IMDG) and International Air Transport Association (IATA).

Skin corrosion/irritation: Category 2

Eye damage/irritation: Category 1

Carcinogenicity: Category 2

Specific target organ toxicity (single exposure): Category 3 (Narcotic)

Aspiration hazard: Category 1

Hazardous to the Aquatic Environment - Acute Hazard: Category 2

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

Signal Word (s)

DANGER

Hazard Statement (s)

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)

Exclamation mark, Corrosion, Health hazard, Environment

**Precautionary Statement–Prevention**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement–Response

P308+P313 IF exposed or concerned: Get medical advice/attention.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor

P331 Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P391 Collect spillage.

Precautionary Statement–Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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
Solvent naphtha (petroleum), heavy arom.	64742-94-5	250 g/L
carfentrazone-ethyl (ISO)	128639-02-1	240 g/L
Propylene glycol	57-55-6	0-10 %
Surfactant		0-10 %
Ingredients determined not to be hazardous		Balance

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

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

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

First Aid Facilities

Eyewash, safety shower 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

Water fog, foam, carbon dioxide or dry chemical.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases hydrogen chloride, phosgene and hydrogen fluoride.

Special Protective Equipment for fire fighters

This product will burn if exposed to fire.

Specific hazards arising from the chemical

This product will burn if exposed to fire.

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.

Decomposition Temperature

Not available

Section 6 - Accidental Release Measures

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. 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.

Environmental Precautions

This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

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. Do not use near ignition sources. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene by washing hands prior to eating, drinking, smoking or using toilet facilities. Avoid exposure. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, foodstuffs, clothing and incompatible materials such as oxidising agents. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

Storage Regulations

Classified as a Class C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940 2017.

Other Information

Always read the label and any attached leaflet before use.

Mix only as much herbicide solution as needed at the time. Do not store the sprayer for any extended period of time, especially overnight, with Nufarm Unity 240 Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing or spray nozzles or strainers.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Propylene glycol

TWA: 150 ppm (vapours and particulates)

TWA: 474 mg/m³ (vapours and particulates)

TWA: 10 mg/m³ (particulates)

Oil mist (mineral)

TWA: 5 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Source: Safe Work Australia

Biological Monitoring

No biological limits allocated.

Control Banding

Not available

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

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 full face shield should be used. 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 rubber. 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	Milky emulsion
Colour	Milky	Odour	Not available
Melting Point	Not available	Boiling Point	220-290°C (for solvent)
Decomposition Temperature	Not available	Solubility in Water	Forms an emulsion in water
Specific Gravity	Not available	pH	3 - 5.5
Vapour Pressure	0.016 mPa @ 25°C for carfentrazone ethyl	Relative Vapour Density (Air=1)	>1 (solvent)
Evaporation Rate	Not available	Viscosity	Not available
Volatile Component	Not available	Partition Coefficient: n-octanol/water (log value)	Kow Log P is 3.36 for carfentrazone-ethyl
Flash Point	>104 °C	Flammability	Non flammable
Auto-Ignition Temperature	Not available	Explosion Limit - Upper	Not available
Explosion Limit - Lower	Not available	Explosion Properties	Not available
Oxidising Properties	Not available	Particle Size	Not available

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions. Hydrolyses at pH >7.

Possibility of hazardous reactions

Reacts with incompatible materials.

Conditions to Avoid

Heat, open flames and other sources of ignition.

Incompatible Materials

Strong oxidising agents.

Hazardous Decomposition 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.

Hazardous Polymerization

Hazardous polymerisation is not possible.

Section 11 - Toxicological Information

Acute Toxicity

Acute toxicity data for a similar product given below.

Acute Toxicity - Oral

LD50 (female, rat) >4,000 mg/kg

Acute Toxicity - Dermal

LD50 (rabbit) >4,000 mg/kg

Acute Toxicity - Inhalation

LC50 (rat) (4hr) >6 mg/l

Ingestion

May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause severe pulmonary injury that may lead to death. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting.

Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

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

Suspected of causing cancer. Classified as a suspected human carcinogen.

An impurity present in the solvent has been found to cause tumors in laboratory studies. The active ingredient(s), carfentrazone-ethyl is not considered carcinogenic.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

May cause drowsiness or dizziness.

STOT - Repeated Exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Other Information

The Australian Acceptable Daily Intake (ADI) for carfentrazone-ethyl for a human is 0.03 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 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

Toxic to aquatic life with long lasting effects.

No ecological data available for this material. The available ecological data for the ingredients is given below:

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

Spray drift can cause damage, read the label for more information.

Acute Toxicity - Fish

Carfentrazone-ethyl

LC50 (various species): 1.6 - 43 mg/l/96h

Acute Toxicity - Daphnia

Carfentrazone-ethyl

LC50 (daphnia): 9.8 mg/l/96h

Acute Toxicity - Algae

Carfentrazone-ethyl

EC50: 0.015 mg/l

Acute Toxicity - Other Organisms

Carfentrazone-ethyl

Birds: Not toxic to birds.

LD50 (quail): >1000 mg/kg

Bees: Not toxic to bees.

LD50 (contact) >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.

If recycling, replace cap and return clean containers to recycler or designated collection point.

Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank.

If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility.

If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations.

Section 14 - Transport Information

Transport Information

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition) as this product complies with the requirements of Special Provision AU01 and is therefore exempted from being classified as Dangerous Goods according to the ADG Code.

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.

If shipped in quantities exceeding the above limits, ship as:

Class/Division: 9

UN Number: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Carfentrazone Ethyl)

Packing Group: III

Hazchem code: •3Z

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 Carfentrazone Ethyl) (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 Carfentrazone Ethyl)

Packing Group: III

Label: Miscellaneous

Packaging Instructions (passenger & cargo): 964

Packaging Instructions (cargo only): 964

Special provisions: A97, A158, A197, A215

UN Number

None Allocated

Proper Shipping Name

None Allocated

Transport Hazard Class

None Allocated

IMDG Marine pollutant

Yes

Transport in Bulk

For bulk shipments as Class 9, use UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Carfentrazone Ethyl), HazChem code•3Z.

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not 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

Not Scheduled

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: 69527.

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 Amendment: June 2024

Section 14 - Transport Information

SDS Reviewed: February 2024

Supersedes: January 2019

Version Number

3.1

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

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