

SAFETY DATA SHEET

NUFARM PYROXASULFONE 850WG HERBICIDE

Infosafe No.: LQBXF ISSUED Date : 09/11/2023 ISSUED by: NUFARM AUSTRALIA LIMITED.

Section 1 - Identification

Product Identifier

NUFARM PYROXASULFONE 850WG HERBICIDE

Product Code

0496

Company Name

NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)

Address

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Telephone/Fax Number

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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

Herbicide

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.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Eye damage/irritation: Category 2 Sensitisation - skin: Category 1 Carcinogenicity: Category 2

Specific target organ toxicity (repeated exposure): Category 2 Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s)

WARNING

Hazard Statement (s)

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Exclamation mark, 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.

P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

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.

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

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P391 Collect spillage.

Precautionary Statement-Storage

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
Pyroxasulfone	447399-55-5	850 g/kg
Talc, magnesium silicate hydrate	14807-96-6	<50 g/kg
Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt	577-11-7	<50 g/kg
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 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 for several minutes until all contaminants are washed out completely. Seek 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 spray, Carbon Dioxide (CO2), Foam or Sand.

Unsuitable Extinguishing Media

Water jet

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulphur oxides, Hydrogen fluoride, Hydrogen cyanide (hydrocyanic acid).

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.

Hazchem Code

27

Decomposition Temperature

Not available

Section 6 - Accidental Release Measures

Emergency Procedures

Remove all sources of ignition. Increase ventilation. Evacuate all unprotected personnel. Do not breathe dust. Wear respiratory protection and full protective clothing to minimise exposure. Sweep up material avoiding dust generation - dampen spilled material with water if suitable to avoid airborne dust, OR where possible use dustless methods such as vacuum to collect the material; then transfer material in to suitable vapour tight labelled containers for subsequent recycling or disposal. Dispose of waste according to 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.

Section 7 - Handling and Storage

Precautions for Safe Handling

Avoid inhalation of dust, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Maintain high standards of personal hygiene i.e. 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 well ventilated area away from heat and sources of ignition, out of direct sunlight and moisture. Take precautions against static electricity discharges. Use proper grounding procedures. Store away from incompatible materials such as materials that support combustion (oxidising materials). Store in suitable, labelled containers. Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Ensure that storage conditions comply with applicable local and national regulations. For information on the handling of Combustible dusts and grounding procedure reference should be made to Australian Standard AS/NZS 4745 - 'Code of Practice for Handling Combustible Dusts'

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:

Talc

TWA: 2.5 mg/kg

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 solid/dust away from workers' breathing zone. A flameproof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate 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.

Eve 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 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.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Solid - Granules	Appearance	Beige/Off-white granules
Colour	Beige/Off-white	Odour	Not available
Melting Point	Not available	Boiling Point	Not available
Decomposition Temperature	Not available	Solubility in Water	Disperses
Specific Gravity	Not available	рН	7 - 10
Vapour Pressure	0.0000024 Pa (25 °C, Pyroxasulfone)	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)	log Pow 2.39 (25 °C, Pyroxasulfone)	Flash Point	Not available
Flammability	Not 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		

Other Information

Miniumum ignition energy: >30 - <100 mJ

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

Reacts with incompatible materials.

Conditions to Avoid

Dust accumulation, heat and other sources of ignition.

Incompatible Materials

Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulphur oxides, Hydrogen fluoride, Hydrogen cyanide (hydrocyanic acid).

Hazardous Polymerization

Not available

Section 11 - Toxicological Information

Toxicology Information

No toxicity data available for this material. The available acute toxicity data for the ingredient/s is/are given below.

Acute Toxicity - Oral

Pyroxasulfone

LD50 (rat): >2000 mg/kg

Acute Toxicity - Dermal

Pyroxasulfone

LD50 (rat): 2000 mg/kg

Acute Toxicity - Inhalation

Pyroxasulfone

LD50 (rat): >6.56 mg/L

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of dusts may irritate the respiratory system.

Skin

May cause an allergic skin reaction. May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

May cause an allergic skin reaction

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

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

Talc is listed as a Group 3: Not classifiable as to carcinogenicity 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

May cause damage to organs through prolonged or repeated exposure.

Pyroxasulfone has caused specific target organ toxicity in experimental animal studies in the liver, kidney, urinary bladder and heart.

Other Information

The Australian Acceptable Daily Intake (ADI) for pyroxasulfone or a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 2 mg/kg bw/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) September 2023.)

Section 12 - Ecological Information

Ecotoxicity

Very 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

Pyroxasulfone is not rapidly biodegradable.

Mobility

Pyroxasulfone: Mobile in soils.

Bioaccumulative Potential

Pyroxasulfone does not bioaccumulate.

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

Pyroxasulfone

LC50 (oncorhynchus mykiss): >2.2 mg/L/96h

Acute Toxicity - Daphnia

Pyroxasulfone EC50: >4.4 mg/l/48h

Acute Toxicity - Algae

Pvroxasulfone

EC50 (green algae (Pseudokirchneriella subcapitata)): 0.00038 mg/L/72h

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. To minimise personal exposure, refer to Section 8 - Exposure Controls and Personal Protection.

Section 14 - Transport Information

Transport Information

Road and Rail Transport:

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.

UN No.: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Pyroxasulfone) MARINE POLLUTANT

DG Class: 9

Packaging Group: III EMS No.: F-A, S-F

Special provisions: 274, 335, 966, 967, 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.

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Pyroxasulfone)

Class: 9

Packing Group: III Label: Miscellaneous

Packaging Instructions (passenger & cargo): 956 Packaging Instructions (cargo only): 956

Special provisions: A97, A158, A179, A197

UN Number

3077

Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Pyroxasulfone)

Transport Hazard Class

Packing Group

Hazchem Code

27

IERG Number

47

Special Precautions for User

Not available

IMDG Marine pollutant

Transport in Bulk

Not available

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.

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

S6

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 registration number: 93314.

Basel Convention

Not listed

Section 16 - Any Other Relevant Information

Date of Preparation

SDS Created: November 2023

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

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.

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