

4FARMERS GLYPHOSATE 875 HERBICIDE

Chemwatch Independent Material Safety Data Sheet

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C9318EC

CHEMWATCH 3729746

Version No:2.0

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

4FARMERS GLYPHOSATE 875 HERBICIDE

PRODUCT USE

A non-selective herbicide for the control of a wide range of annual and perennial grasses and broadleaved weeds in many situations - see label for details.

SUPPLIER

Company: 4Farmers

Address:

1/70 McDowell Street

Welshpool, 6106

AUS

Telephone: +61 8 9356 3445

Fax: +61 8 9356 3447

Email: admin@4farmers.com.au

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.



POISONS SCHEDULE

S5

RISK

- In use may form flammable/explosive vapour-air mixture.
- Harmful by inhalation and if swallowed.
- Toxic in contact with skin.
- Irritating to eyes respiratory system and skin.
- Toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.
- Cumulative effects may result following exposure*.
- May possibly affect fertility*.

* (limited evidence).

SAFETY

- Keep locked up.
- Do not breathe gas/fumes/vapour/spray.
- In case of insufficient ventilation wear suitable respiratory equipment.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- Avoid exposure - obtain special instructions before use.
- To clean the floor and all objects contaminated by this material use water.
- Keep container tightly closed.

- This material and its container must be disposed of in a safe way.
- Keep away from food drink and animal feeding stuffs.
- Take off immediately all contaminated clothing.
- In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.
- Use appropriate container to avoid environmental contamination.
- Avoid release to the environment. Refer to special instructions/Safety data sheets.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
glyphosate monoammonium salt	40465-66-5	70 – 100%

Section 4 - FIRST AID MEASURES

SWALLOWED

- - IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
- For advice, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with the eyes:
 - Immediately hold eyelids apart and flush the eye continuously with running water.
 - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN

- If skin or hair contact occurs:
 - Quickly but gently, wipe material off skin with a dry, clean cloth.
 - Immediately remove all contaminated clothing, including footwear.

INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.
- Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).

NOTES TO PHYSICIAN

- Treat symptomatically.

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.

Treatment for significant glyphosate exposures

The presence of a phosphono-group in the structure has been incorrectly interpreted as an organophosphate which suggests cholinesterase inhibition in poisoning cases. Retrospective

studies on glyphosate poisoning have shown atropine and pralidoxime been mistakenly administered to counteract such poisoning cases.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - Water spray or fog.
- Foam.

FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.

FIRE/EXPLOSION HAZARD

- **WARNING:** In use may form flammable/ explosive vapour-air mixtures.
 - Combustible.
 - Slight fire hazard when exposed to heat or flame.
- Combustion products include: carbon dioxide (CO₂), nitrogen oxides (NO_x), phosphorus oxides (PO_x), other pyrolysis products typical of burning organic material.
- Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.
- May emit poisonous fumes.
- May emit corrosive fumes.

FIRE INCOMPATIBILITY

- - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: None

PERSONAL PROTECTION

Glasses:
Chemical goggles.

Gloves:
PVC chemical resistant type.

Respirator:
Type AKNO-P Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- - Remove all ignition sources.
- Clean up all spills immediately.

MAJOR SPILLS

- Moderate hazard.
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Contains low boiling substance:
- Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
 - Vent periodically.
 - DO NOT allow clothing wet with material to stay in contact with skin.
- Do NOT mix, store or apply the material/ formulations of the glyphosate, its salts or compounds in galvanised steel or unlined steel (except stainless steel), containers or spray tanks. The material/ formulations of the material/ spray solutions react with such containers and tanks to produce hydrogen gas which forms gas mixtures which may flash or explode when exposed to open flame, spark, welder torch, lighted cigarette or other sources.
- Avoid all personal contact, including inhalation.
 - Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- - DO NOT use mild steel or galvanised containers.
- Metal can or drum
- Packaging as recommended by manufacturer.

STORAGE INCOMPATIBILITY

- - Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.
 - Avoid strong acids, acid chlorides and acid anhydrides..
 - Avoid contact with copper, aluminium and their alloys.
- Reacts with mild steel, galvanised steel and zinc to produce hydrogen (H₂).
- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- - Store in original containers.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Australia Exposure Standards	iso-propylamine (Isopropylamine)	5	12	10	24

The following materials had no OELs on our records

- glyphosate isopropylamine salt: CAS:40465-66-5
- water: CAS:7732-18-5

PERSONAL PROTECTION

RESPIRATOR

Type AKNO-P Filter of sufficient capacity

EYE

- - Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

- - Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

Suitability and durability of glove type is dependent on usage. Factors such as:

- frequency and duration of contact,
- chemical resistance of glove material,

OTHER

- - Overalls.
- P.V.C. apron.

ENGINEERING CONTROLS

- Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Blue viscous liquid with mild chemical odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Alkaline.

Molecular Weight: Not Applicable
Melting Range (°C): Not Available
Solubility in water (g/L): Miscible
pH (1% solution): Not Available
Volatile Component (%vol): Not Available
Relative Vapour Density (air=1): Not Available
Lower Explosive Limit (%): Not Applicable
Autoignition Temp (°C): Not Applicable
State: Solid

Boiling Range (°C): Not Available
Specific Gravity (water=1): NA
pH (as supplied): Not Available
Vapour Pressure (kPa): Not Available
Evaporation Rate: Not Available
Flash Point (°C): Not Applicable
Upper Explosive Limit (%): Not Applicable
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- - Presence of incompatible materials.
 - Product is considered stable.
- For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- Toxic in contact with skin.
- Harmful by inhalation and if swallowed.
- Irritating to eyes, respiratory system and skin.

CHRONIC HEALTH EFFECTS

- May possibly affect fertility*.
- Cumulative effects may result following exposure*.
- * (limited evidence).

TOXICITY AND IRRITATION

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

GLYPHOSATE ISOPROPYLAMINE SALT:

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 4320 mg/kg
 Dermal (rabbit) LD50: 7940 mg/kg

IRRITATION

Nil Reported

- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

ISO-PROPYLAMINE:

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 820 mg/kg
 Inhalation (rat) LC50: 4000 ppm/4h
 Dermal (rabbit) LD50: 380 mg/kg
 Inhalation (rat) LC50: 4770 ppm/1h * [* = Air Products estimates]
 Inhalation (rat) LC50: 6920 ppm/20min * [CCINFO MSDS record 1572651]
 Inhalation (rat) LC50: 18200 ppm/6min *

IRRITATION

Skin (rabbit): 0.75 mg/24h-SEVERE
 Skin (rabbit): 10mg/24h openSEVERE
 Eye (rabbit): 0.05 mg/24h-SEVERE

- The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

Section 12 - ECOLOGICAL INFORMATION

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment. Refer to special instructions/ safety data sheets.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
4Farmers Glyphosate 450 Herbicide		No data		

glyphosate isopropylamine salt	No data
iso-propylamine water	No data No data

Section 13 - DISPOSAL CONSIDERATIONS

- - Containers may still present a chemical hazard/ danger when empty.
 - Return to supplier for reuse/ recycling if possible.
- Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
 - It may be necessary to collect all wash water for treatment before disposal.
 - Recycle wherever possible or consult manufacturer for recycling options.
 - Consult State Land Waste Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S5

REGULATIONS

Regulations for ingredients

glyphosate isopropylamine salt (CAS: 38641-94-0) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

iso-propylamine (CAS: 75-31-0) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

water (CAS: 7732-18-5) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for 4Farmers Glyphosate 450 Herbicide (CW: 3729746)

Section 16 - OTHER INFORMATION

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.