

GENEREX (AUST) PTY LTD
MATERIAL SAFETY DATA SHEET

I IDENTIFICATION

Product Name: Generex Glymate 300 Herbicide
Chemical Name: 2,4-D (present as the isopropylamine salt)
Hazchem Code: None allocated
UN No. 3082
Dangerous Goods Class: None allocated
Sub Risk Class:
Packaging Group: III
EPG: None allocated
Poison Schedule: S5
Use: For the control of emerged broad leaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control.

Ingredients:

Component	CAS No.	%
2,4-D (present as Isopropylamine Salt)		300g/L
Water		to 100%

Physical appearance & Properties:

Appearance: Clear, brown liquid.
Boiling Point: 100°C
Melting Point: <0°C
Vapour Pressure: 16mm Hg (for water), 2,4-D amines are non-volatile Volatile
Component: 70% (water)
Specific Gravity: 1.1
Flash Point: >100°C
Flammability Limits: N/ A
Explosive Limits: N/ A
Autoignition Temp: N/ A
Form: Liquid
Other Properties: Soluble in water

II HEALTH HAZARD DATA

The product has been assessed according to the Worksafe criteria for classifying hazardous substances and is classified as hazardous. Risk phrases R20 / 21 / 22 harmful by inhalation, in contact with skin and if swallowed.

Acute Effects:

Swallowed: The active ingredient constitutes a significant toxic hazard. Absorption of 2,4-D in relatively large amounts can produce headaches, nausea, lethargy, motor weakness and inco-ordination.

Eyes: The concentrate may cause irritation and possible damage unless washed off immediately.

Skin: may cause reddening of the skin and some irritation if contact with the concentrate is prolonged. Prolonged contact of skin with the concentrate may result on some absorption of 2,4-D through the skin.

Inhaled: May cause a moderate hazard during spraying operations.

Chronic Effects:

Chronic Over Exposure: Repeated adsorption of relatively large amounts of 2,4- D presents a risk to the liver and kidneys.

First Aid:

Swallowed: If swallowed, and if more than 15 minutes from a hospital, induce vomiting, using Ipecac Syrup APF. Notify physician.

Eye: Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.

Skin: Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water .

Inhaled: Move victim to fresh air.

Advice to doctor: Treat symptomatically.

Toxicity Data:

2,4-D (2,4-dichlorophenoxyacetic acid)

Acute LD₅₀ (oral, rat): 699mg/kg

Acute LD₅₀ (dermal, rabbit): >2000mg/kg

Acute LC₅₀ (inhalation, rat): >1.79mg/L Not toxic to bees.

Acute LC₅₀ (rainbow trout): -100mg/L

Acute LC₅₀ (daphnia): 1.4mg/L

Acute LC₅₀ (mallard duck): >5000mg/kg in diet

Acute LC₅₀ (mallard duck): >1000mg/kg

Mono-isopropylamine

Acute oral LD₅₀ 820mg/kg (rat)

In trials using 2,4-D as a drug, studies on volunteers have shown that doses of between 5 and 36mg/kg body weight do not cause any acute toxic effects. Formulated 2,4-D product can be absorbed by

ingestion, inhalation (spray mist) and through the skin. Studies of users (sprayers) has shown that absorption through the skin is the most common route. When used with good agricultural spraying practice and good personal hygiene, absorption of 2,4-D is very low.

2,4-D does not accumulate in the body: a single dose of 2,4-D is rapidly excreted (in a few days), mainly in the urine. The Australian Acceptable Daily Intake (ADI) of 2,4-D for a human is 0.01mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept of Human Services and Health, " ADI List" , AGPS, May 1994).

III PRECAUTIONS FOR USE

Exposure Standards:

No exposure limits have been set for this product, however, an exposure limit has been set for 2,4-D acid (solid) at 10mg/m³

Engineering Controls:

Use with adequate ventilation.

Personal Protection:

Avoid contact with eyes and skin. Do not inhale spray mist. When preparing product for use, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and effective eye protection. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

Flammability:

Non combustible. Non flammable.

Environment:

Marine Pollutant

2,4-D products do not appear to pose any threat to birds.

2,4-D products do not appear to pose any threat to fish other than in very high concentrations.

Do not contaminate streams, rivers or waterways with the chemical or used containers. Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several water rinses.

Do not use on or in situations where damage to susceptible crop plants such as cotton, tobacco, flowers, vines, fruit trees or other susceptible crop plants may result from direction application or drift.

IV SAFE HANDLING INFORMATION

Storage and transport:

Storage & Transport:

Store in the closed, original container in a well-ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Considered non hazardous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Environmentally hazardous liquid, n.o.s. (2,4-D) UN 3082 Class 9 Packaging Group: III

Packaging and Labelling:

WARNING

Safety Phrases:

S2 Keep out of Reach of Children

S13 Keep away from food and animal food stuffs.

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Spills and Disposal:

Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterways and sewers. Collect in sealed open top containers for disposal. Triple rinse containers, add rinsate to the spray tank then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Fire/Explosion Hazard:

If material is involved in a fire in a confined area, breathable air apparatus may need to be worn.

May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.

Non flammable. Non combustible.

Boiling Point: 100°C.

Flash Point: >100°C

Fire Point: Nil.

Reactivity Data:

Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-D acid and largely deactivate the product and cause blockages in spray equipment.

The addition of a strong alkali such as caustic soda will cause release of mono-isopropylamine. Mono-isopropylamine is very volatile and moderately toxic, LD50 (oral, rat) is 820mg/kg and a TLV of Sppm

(TWA) has been set. Under adverse conditions, the product may react with powerful oxidizing agents. Polymerisation is not possible.

V OTHER INFORMATION

IN CASE OF EMERGENCY:
IF INEFFECTIVE:

DIAL 000
PHONE POISONS INFORMATION CENTRE

SPECIALIST COMPANY ADVICE:

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