



Grow Choice Pty Ltd

ABN 62 069 839 961
113 Fitzroy Street
Tamworth NSW 2340

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: Tussock – Water Soluble Liquid Herbicide

Statement of Hazardous Nature:

Classified as hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)

Product Name: Tussock - Water Soluble Liquid Herbicide

Supplier: Grow Choice Pty.Ltd.

ACN: 069 839 961

Address: 113 Fitzroy Street
Tamworth 2340

Telephone: 0267 663 979

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Herbicide.

Appearance: Odourless, colourless to light yellow liquid.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Flupropanate, sodium salt	22898-01-7	50.4% (745 g/L)
Inerts	-	HIGH
Water	7732-18-5	LOW
		<hr/> 100%

PROPORTION (% weight per weight);

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

3. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of Worksafe Australia.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Poisons Schedule (Aust) Toxic Substance (NZ): S6

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

4. FIRST AID MEASURES.

Poison information Centres in each State capital city can provide additional assistance for scheduled poisons.

Ingestion: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.

Eye contact: Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Skin contact: Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES.

Specific hazards: Non combustible material.

Fire fighting further advice: Not combustible. Decomposes on heating emitting noxious or toxic fumes. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.

Suitable extinguishing media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES.

SMALL SPILLS: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with detergent and excess water.

LARGE SPILLS: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled drums for disposal. Wash area down with detergent and excess water. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

7. HANDLING AND STORAGE.

Storage: Store in the closed, original container in a well-ventilated room as cool as possible and away from children, animals, food, feedstuffs, seed and fertilizers. Do not store for prolonged periods in direct sunlight.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

8.. EXPOSURE CONTROLS / PERSONAL PROTECTION.

National occupational exposure limited

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering measures: Use in a well ventilated area. Keep containers closed when not in use.

Personal protection equipment:

B. OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (S)

Manufacturing, Packaging and Transport: Avoid skin and eye contact and the inhalation of vapour. Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet.

If inhalation risk exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716

Preparation and use of Product: When mixing and using avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray, wear elbow-length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use, wash gloves and face shield or goggles and contaminated clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Odourless, colourless to light yellow liquid

Solubility: Soluble in water. Sparingly soluble in non-polar solvents

Specific Gravity (20 C)	: 1.48	Melting Point (C)	: N App
Rel Vapour Density (airal)	: N Av	Boiling Point (C)	: N Av
Vapour Pressure (138 C)	: <0.04 kPA	Decomp. Point (C)	: 165-167
Flash Point (C)	: N App	Sublimation Point	: N App
Flammability Limits (%)	: N App	pH	: N Av
Autoignition Temp (C)	: N App	Viscosity	: N Av
% Volatile by volume	: N Av	Evaporation Rate	: N Av
Solubility in water (g/L)	: 3,900	(n-Buty) acetate=1)	
LogPow (flupropanate-sodium)	: <-1.9		

(Typical values only – consult specification sheet)

N Av = Not available N App + Not applicable

10. STABILITY AND REACTIVITY

Stability: No information available.

11. TOXICOLOGICAL INFORMATION

Main symptoms: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Ingestion: No adverse effects expected, however large amounts may cause nausea, vomiting, loss of muscle rigidity, cyanosis and incontinence. (1)

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Where this material is used in a poorly ventilated area and at elevated temperatures and confined spaces vapour may cause irritation to mucous membranes and respiratory tract, headache and nausea.

Long Term Effects: No information available for product.

Acute toxicity / Chronic toxicity.

No LD50 data available for product. For the major constituent.

FLUPROPANATE, SODIUM SALT.

Oral LD50 (rat): 10.6-12.0 g/kg. (1)

Oral LD50 (mice): 9.24 g/kg. (2)

Dermal LD50 (rat): >5 g/kg. (1)

Dermal LD50 (rabbit): >2 g/kg. (2)

Inhalation LV50 (rats): >1740 mg/m³/14 day. (3)

SKIN: Mild irritant (rabbit). (4)

EYES: Mild irritant (rabbit). (4)

No observable adverse effects were reported in rats fed 5 mg/kg/day and

Mice fed 6.6 mg/kg/day of flupropanate, sodium salt for 3 months and 12

Months, respectively. (3)

Flupropanate, sodium salt was negative in in vitro mutagenicity assays. (4)

ADI (Acceptable Daily Intake) is 0.002 mg/kg/day. (5)

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

FLUPROPANATE, SODIUM SALT:

AQUATIC TOXICITY

Harmless to aquatic organisms.

48hr LC50 (carp, rainbow trout): > 10 g/L. (3)

log Pow is <-1.9 (4)

Risk of bioaccumulation in an aquatic species is low.

TERRESTRIAL TOXICITY

Oral LD50 (quail, male): 6.75 g/L (3)

Oral LD50 (quail, female): 11 g/L. (3)

ENVIRONMENTAL FATE, PERSISTANCE AND DEGRADATION.

Flupropanate is highly soluble in water, and immobile in soil. It is resistant to biodegradation in the soil, but is rapidly excreted in animals (flupropanate, sodium salt administered to rats was not detected in internal organs after 14 days. (3)

