SAFETY DATA SHEET

ROUNDUP® T CONCENTRATE WEEDKILLER TOUGH

Infosafe No.: LQ1JH
ISSUED Date : 24/09/2020
ISSUED by: Evergreen Garden Care Australia Pty. Ltd.

1. IDENTIFICATION

GHS Product Identifier
ROUNDUP® T CONCENTRATE WEEDKILLER TOUGH

Company Name
Evergreen Garden Care Australia Pty. Ltd.

Address
Building E, Level 2
24-32 Lexington Drive, Bella Vista
NSW AUSTRALIA

Telephone/Fax Number
Tel: (02) 8602 9000
Fax: (02) 8602 9001

Emergency phone number
1800 033 111

Recommended use of the chemical and restrictions on use
Herbicide

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Not 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 Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Hazardous to the Aquatic Environment - Acute Hazard: Category 3
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 3

Hazard Statement (s)
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement – Prevention
P273 Avoid release to the environment.

Precautionary statement – Disposal
P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Isopropylamine salt of glyphosate	38641-94-0	1-20 %
Triethylamine salt of triclopyr	57213-69-1	1-2 %
Ingredients determined not to be hazardous, including water		Balance

4. FIRST-AID MEASURES

Inhalation
If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms persist seek medical attention.

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

Skin
Wash affected area thoroughly with soap and water. Take off contaminated clothing, wristwatch, jewellery. Wash clothes and clean shoes before re-use. If symptoms develop seek medical attention.

Eye contact
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. If symptoms persist seek medical attention.

First Aid Facilities
Eyewash and normal washroom facilities.

Advice to Doctor
Treat symptomatically. This product is not an inhibitor of cholinesterase.
Antidote: Treatment with atropine and oximes is not indicated.

Other Information
For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide, dry chemical, foam, water mist or water spray.

Unsuitable Extinguishing Media
Not available

Hazards from Combustion Products
Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx), hydrogen chloride (HCl).

Specific Hazards Arising From The Chemical
This product is non combustible. However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn. Minimise use of water to prevent environmental contamination.

Decomposition Temperature
Not available

Precautions in connection with Fire
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. As a water based product, if spilt on electrical equipment the product will cause short-circuits. 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.

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. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations. Partial crystallization may occur on prolonged storage below the minimum storage temperature.
If frozen, place in warm room and shake frequently to put back into solution.

Storage Temperatures
Minimum storage temperature: -15 °C
Maximum storage temperature: 50 °C

Recommended Materials
Stainless steel, aluminium, fibreglass, plastic, glass lining. Keep only in the original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
No exposure standards have been established for this material by Safe Work, Australia. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values
No biological limits allocated.

Appropriate Engineering Controls
Use with good general ventilation. If mists or vapours are produced, local exhaust ventilation should be used.

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 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 should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection
Wear gloves of impervious material. 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Liquid	**Appearance**	Amber liquid
Colour	Amber	**Odour**	Mild, Musky
Decomposition Temperature	Not available	**Melting Point**	Not applicable
Boiling Point	Not available	**Solubility in Water**	Soluble
Specific Gravity	1.076 (20°C/4°C)	**pH**	4.9
Vapour Pressure	Not significant volatility, aqueous solution.	**Vapour Density (Air=1)**	Not applicable
Evaporation Rate	Not available	**Odour Threshold**	Not available
Viscosity	Not available	**Partition Coefficient: n-octanol/water**	Not available
Density	1.076 g/cm³ (20°C)	**Flash Point**	Does not flash
Flammability	Non-combustible	**Auto-Ignition Temperature**	Not available
Flammable Limits - Lower	Not available	**Flammable Limits - Upper**	Not available
Explosion Properties	No explosive properties	**Oxidising Properties**	None
Kinematic Viscosity	4.1mm²/s (20°C), 2.7mm²/s (40°C)	**Dynamic Viscosity**	Not applicable

Other Information
log Pow: -3.2 (25°C) (glyphosate)

10. STABILITY AND REACTIVITY

Reactivity
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

Chemical Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Extremes of temperature and direct sunlight. Protect from freezing.

Incompatible materials
Incompatible materials for storage: galvanised steel, unlined mild steel.

Hazardous Decomposition Products
Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx), hydrogen chloride (HCl).

Possibility of hazardous reactions
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

Hazardous Polymerization
Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information
Given below:

Acute Toxicity - Oral
Rat, LD50 (limit test): > 5000 mg/kg body weight

No mortality.

Acute Toxicity - Inhalation
This product is not aerosolized during handling or use and is therefore not classified as hazardous under the Dangerous Preparation Directive 1999/45/EC.

Acute Toxicity - Dermal
Rat, LD50 (limit test): > 5000 mg/kg body weight
No mortality.

Ingestion
Not classified according to GHS criteria.

Inhalation
Not classified according to GHS criteria.

Skin
Not classified according to GHS criteria.

Skin irritation
Rabbit, 3 animals, OECD 404 test:
Redness, individual EU scores: 0.67; 0.33; 0.33
Swelling, individual EU scores: 0.00; 0.00; 0.00
Days to heal: 3
Slightly irritating to skin but not sufficient for classification.

Eye
Not classified according to GHS criteria.

Rabbit, 3 animals, OECD 405 test:
Conjunctival redness, individual EU scores: 1.67; 1.00; 1.33
Conjunctival swelling, individual EU scores: 1.00; 0.67; 1.00
Corneal opacity, individual EU scores: 0.00; 0.00; 0.00
Iris lesions, individual EU scores: 0.00; 0.00; 0.00
Days to heal: 3

Respiratory sensitisation
Not expected to be a respiratory sensitiser.

Skin Sensitisation
Not expected to be a skin sensitiser.
Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %

Germ cell mutagenicity
Not considered to be a mutagenic hazard.

Carcinogenicity
Not considered to be a carcinogenic hazard.

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
Not expected to cause toxicity to a specific target organ.

Aspiration Hazard
Not expected to be an aspiration hazard.

Other Information
N-(phosphonomethyl)glycine; (glyphosate acid)

Genotoxicity
Not genotoxic

Carcinogenicity

Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

Triethylamine salt of triclopyr
Following information has been found in the literature.

Genotoxicity
Not genotoxic

Carcinogenicity
Reported to be not carcinogenic to laboratory animals by some suppliers and not classifiable as to human carcinogenicity by the USEPA and other suppliers.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects. Data obtained on similar products and on components are summarized below.

Persistence and degradability
Not available

Mobility
Not available

Other Adverse Effects
Not available

Environmental Protection
Prevent this material entering waterways, drains and sewers.

Acute Toxicity - Fish
Similar formulation
Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: 42.65 mg/L

Acute Toxicity - Daphnia
Similar formulation
Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 42.2 mg/L

Acute Toxicity - Algae
Similar formulation
Green algae (Selenastrum capricornutum):
Acute toxicity, 72 hours, static, ErC50 (growth rate): 14.19 mg/L

Acute Toxicity - Other Organisms
Similar formulation
Avian toxicity
Japanese quail (Coturnix coturnix japonica):
Acute oral toxicity (limit test), single dose, LD50: > 2000 mg/kg body weight
Arthropod toxicity
Honey bee (Apis mellifera):
Contact, 48 hours, LD50: > 208 ug/bee
Soil organism toxicity, invertebrates
Earthworm (Eisenia foetida):
Acute toxicity, 14 days, LC50: > 1000 mg/kg soil

Other Information
Triethylamine salt of triclopyr

Aquatic toxicity, invertebrates
Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 1496 mg/L
Avian toxicity
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: 11622 mg/kg diet
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 10000 mg/kg diet
Mallard duck (Anas platyrhynchos):
Acute oral toxicity, single dose, LD50: 2055 mg/kg body weight
Arthropod toxicity
Honey bee (Apis mellifera):
Contact, 48 hours, LD50: > 100 µg/bee

N-(phosphonomethyl)glycine { glyphosate}
Bioaccumulation
Bluegill sunfish (Lepomis macrochirus):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.
Dissipation
Soil, field:
Half life: 2 - 174 days
Koc: 884 - 60000 L/kg
Adsorbs strongly to soil.
Water, aerobic:
Half life: < 7 days

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.

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).

Marine Transport (IMO/IMDG):
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number
None Allocated

UN proper shipping name
None Allocated

Transport hazard class(es)
None Allocated

IMDG Marine pollutant
No

Transport in Bulk
Not available

Special Precautions for User
Not available

15. REGULATORY INFORMATION

Regulatory information
Not 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).

Poisons Schedule
S6

16. OTHER INFORMATION

Date of preparation or last revision of SDS
SDS Reviewed: October 2020, Supersedes: October 2015

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.
Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
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.
Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS