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MATERIAL SAFETY DATA SHEET

Rygel ClearUp Bio 360 Herbicide

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Supplier: Profeng Australia Pty Ltd
A.C.N.: 156 055 533
Street Address: 103 Ordish Road, Dandenong South, Vic 3175
Telephone: (03) 9768 2803
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Email: info@profeng.com.au

Emergency telephone number: National Poisons Information Centre: Phone Australia 13 11 26.

Product name: Rygel ClearUp Bio 360 Herbicide
Product Use: Water soluble herbicide for non-selective control of many annul and perennial weeds.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity	CAS NO.	Proportion %
Glyphosate, isoprpylamine salt	38641-94-0	36
Alkyl poly glycoside	secret	5-15
Water	7732-18-5	to 100

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

3. HAZARDS IDENTIFICATION

SUSDP Classification: S5
ADG Classification: None Allocated. Not a dangerous Good.

4. FIRST AID MEASURES

Ingestion: If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust).
Make every effort to prevent vomit from entering the lungs by careful

placement of the patient. Do not give anything by mouth to a semi-conscious or unconscious person.
Give a glass of water.

Eye contact: If product in eyes, wash material from them with running water. If they begin watering or reddening, take special care in washing thoroughly

Skin contact: If skin contact occurs, thoroughly wash contacted areas. No further measures should normally be required unless irritation is noticed. If irritation persists, seek medical attention.

Inhalation: No first aid measures normally required. However, if vapours or mists have been inhaled, and irritation has developed, remove to fresh air and observe until recovered.

Notes to physician: Treat symptomatically. Note the nature of this product.

5. FIRE-FIGHTING MEASURES

Fire & Explosion Hazards:
The product is not flammable. If involved in a fire, use extinguishing agent suitable for the material on fire.

Suitable extinguishing media: Water spray, foam, dry chemical, carbon dioxide and/or any Class B extinguishing agent.

Precautions for Firefighters and Special Protective Equipment:
When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and respirator. All skin areas should be covered.

Unusual Fire & Explosion Hazards: This product, or spray solutions of this product, may react with galvanized steel or unlined steel (except stainless steel) containers and tanks, to produce hydrogen gas, which may form a highly combustible gas mixture.

Hazards from combustion products: Not combustible, however after evaporation of aqueous component residual material may burn. Product of combustion may include carbon dioxide, carbon monoxide, smoke and fumes.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect in sealed open top containers for disposal.
Final clean-up with degreasing agent or detergent is advised.

Environmental Precautions
Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in

work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that these measures are followed.

No special storage and transport requirements. This product has no UN classification.

Storage: This product is a S5 Poison. Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits:

Exposure limits have not been established by NOHSC Australia for any of the significant ingredients in this product.

The ADI (Acceptable Daily Intake) for Glyphosate is set at 0.3mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 30mg/kg/day. Values taken from Australian ADI List, January 2001.

Engineering Controls:

Use good occupational work practice with adequate ventilation. Natural ventilation should be adequate under normal use conditions.

Personal Protection:

Respiratory Protection: It is usually safe to not use a dust mask or respirator protection on account of this product. However, if the product is being used in dusty or confined conditions, use of a mask or respirator may be preferred.

Protective Gloves: Impermeable elbow length PVC gloves should be worn when you are using this product, to prevent irritation.

Eye Protection: When preparing product for use, wear face shield or goggles.

Clothing: When using controlled droplet applicator, wear protective waterproof clothing and impervious footwear.

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 goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow/Brown coloured liquid
Odour:	Odourless to slight amine odour
Melting/softening point:	Approximately 0°C
Boiling point:	Approximately 100°C at 100kPa
Volatile materials:	Water component. Active ingredient is considered non volatile
Vapour pressure:	2.37 kPa at 20 °C (water vapour pressure)

Flashpoint:	Does not burn
Specific gravity:	1.17 approx
Solubility in water:	Completely soluble
Flash Point:	None
Flammability:	Non combustible material
Ignition Temperature:	N/A
Corrosiveness:	Not corrosive
pH:	4.9 – 5.3

10. STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions.
Conditions to Avoid: This product should be kept in a cool place, preferably below 30 °C.
Incompatibilities: Strong oxidising agents.
Fire Decomposition: If involved in a strong fire can release nitrogen oxides and oxides of phosphorus.
Polymerization: Hazardous polymerisation is not possible.
Materials to Avoid Corrosive to mild steel, galvanised and zinc.
Non corrosive to stainless steel, polyethylene and plastics.
Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.
Hazardous Reaction Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Such contact may release isopropylamine vapour with a strong fish like odour, which is an irritant to eyes. Isopropylamine is moderately toxic, LD50 (oral, rat) is 820 mg/kg and a TLV of 5 ppm (TWA) has been set.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation When applying the product as a spray avoid breathing in spray mists. May cause irritation to mucous membranes and respiratory tract.
Ingestion The concentrate is of low toxicity if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. Possible symptoms of exposure include: nausea, vomiting and gastrointerestinal discomfort and diarrhoea. Ingestion of a large quantity of the undiluted product may result in hypotension and pulmonary oedema.
Skin The concentrated product may cause slight irritation on contact. Prolonged contact is likely to result in irritation.
Skin Irritation Slight irritant.
Eye The concentrate may cause irritation of the eyes. Prolonged contact with the

concentrate may cause damage to the eye.
Eye Irritation Slight irritant

Acute Toxicity - Oral LD50 (rat) >5000 mg/kg for a similar product
Acute Toxicity - Dermal
LD50 (rabbit) >5000 mg/kg for a similar product
Acute Toxicity - Inhalation
LC50 (rat) (4hr) >1.3 mg/L
LC50 concentration not reached.
Other Information The Australian Acceptable Daily Intake (ADI) for glyphosate for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 30 mg/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 Health and Ageing, 'ADI List', TGA, August 2003).

12. ECOLOGICAL INFORMATION

Environmental Fate:

Breakdown in Soil: Glyphosate is strongly adsorbed by soil and therefore becomes practically immobile. Microbial activity is the major cause of soil degradation with liberation of carbon dioxide. Half-life is typically 47 days.

Breakdown in Water: Glyphosate is strongly adsorbed to suspended organic and mineral matter and is broken down primarily by micro-organisms. The half-life in pond water ranges from 12 days to 10 weeks.

Other Precautions Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product.
Environ. Protection Glyphosate is a non-selective contact herbicide. Spray drift can cause damage.

Acute Toxicity - Fish Not toxic to fish.
LC50 (96 hr) for rainbow trout is >989 mg/L
LC50 (96 hr) for carp is >895 mg/L
The above data is for the formulated product.
Acute Toxicity – Other Organisms
Birds: Not toxic to birds. LD50 for mallard ducks and bobwhite quail (diet) is >5620 mg/kg
Bees: Not toxic to bees. LD50 >100 µg/bee.

13. DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given

on the product label. These should be carefully followed.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA)

Dangerous Goods Regulations for transport by air.

It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

U.N. Number None Allocated
Proper Shipping Name None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated

15. REGULATORY INFORMATION

Poisons Schedule S5
Packaging & Labelling
CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

All information contained in this document is as accurate as possible based on information submitted by raw material suppliers. **Profeng Australia Pty Ltd** will not be responsible for any damages that may result from reliance on the information contained herein.