



SAFETY DATA SHEET

Knockdown™ Weedkiller

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Identifiers

Product name: **Knockdown™ Weedkiller**
Other Name(s): Soluble concentrate containing glyphosate 360 g/L present as the Isopropylamine salt

1.2 Recommended use of the chemical and restrictions on use

Product Use: Herbicide for annual and perennial weeds, and grasses.

1.3 Supplier contact details:

Company name: Grosafe Chemicals Limited
Address: 20 Jean Batten Drive Mt Maunganui, 3116
Telephone: 0800 220 002
Email: info@grosafe.co.nz

Emergency telephone number 0800 CHEMCALL (0800 243 622)

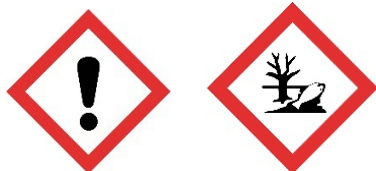
SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the Hazardous Chemical

Hazardous substance according to Hazardous Substances and New Organisms (HSNO) Act 1996
HSNO Substance Approval: HSR101010
Hazard classifications: Eye irritation, Category 2; Hazardous to aquatic environment chronic, Category 2.

2.2 Label elements:

Pictograms:



Signal Word: WARNING

Hazard statements:

H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Additional labelling statements required under Hazardous Substances (Labelling Notice 2017)

Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

Do not apply directly into or onto water.

Precautionary statements:*Prevention*

P103	Read label before use.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye/ face protection.
P391	Collect spillage.

Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice.

Storage

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Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Proportion % w/w
Glyphosate acid	1071-83-6	29 – 31*
Surfactant blend	Trade secret	<15
Other ingredients including water **	Trade secret	balance

This is a commercial product whose exact ratio of components may vary slightly.

* Equivalent to 360 g/L glyphosate acid (486 g/L glyphosate Isopropylamine salt, CAS No 38641-94-0)

**Do not affect the hazardous classifications of the product.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****General Information:**

For advice call the National Poisons Centre, telephone 0800 POISON [0800 764 766]. Have label or Safety Data Sheet at hand.

Ingestion: If swallowed, rinse mouth with water. Call the NATIONAL POISONS CENTRE or doctor for advice if person feels unwell.

Skin Contact: Remove contaminated clothing and wash skin with plenty of soap and water. Get medical advice if irritation persists.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice if irritation persists.

Inhalation: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call the NATIONAL POISONS CENTRE or doctor for advice if person feels unwell.

4.2 Symptoms caused by exposure

Accidental ingestion of diluted glyphosate solutions may result in mild, transient, gastrointestinal disturbance. Eye exposure may lead to mild conjunctivitis. Fast action is needed (flushing with water) to avoid more serious effects. Inhalation of spray mist may cause oral or nasal discomfort, an unpleasant taste in the mouth, tingling and throat irritation.

4.3 Medical attention and special treatment

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Use water spray, CO₂, fog or foam as appropriate for surrounding materials. Contain extinguishing media to prevent runoff into drains, sewers, waterways.

5.2 Specific hazards arising from the chemical

Fire decomposition products may be toxic/harmful and/or irritating if inhaled. Evacuate people to safe area upwind of fire.

5.3 Special protective equipment and precautions for fire fighters

Wear full personal protective equipment including with self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Have this SDS available. In the event of a spill, wear appropriate protective clothing, eye and skin protection. Wash contaminated personal protective equipment and clothing, and dry before re-use.

6.2 Environmental precautions

Prevent spillage from entering drains or waterways. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

6.3 Methods and materials for containment and cleaning up

For small liquid spills, use absorbent material such as sand or vermiculite and recover into labelled drums that can be sealed for safe disposal. For large liquid spills, recover liquid into labelled containers then absorb remaining liquid and transfer to drums for disposal.

Clean area with water and detergent.

Dispose of contaminated materials to approved landfill in accordance with local regulations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Read the label before use.

Do not apply directly into or onto water.

Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

Avoid contact with eyes and skin. Wear gloves and eye protection. Wash hands and exposed skin with soap and water after handling and before rest or meal breaks.

Do not use spray equipment contaminated with this product for any other purpose unless first thoroughly cleaned with a suitable cleaning detergent.

7.2 Conditions for safe storage

Store securely in the closed original packaging out of reach of children and in a dry, cool, well-ventilated area and out of direct sunlight. Keep away from food, drink and animal feedstuffs.

Storage of more than 1000 L of this product requires an emergency response plan, secondary containment and signage.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters – exposure standards, biological monitoring

Workplace Exposure Standard and Biological Exposure Indices, edition 13, April 2022.

Ingredient	TWA (mg/m ³)	STEL (mg/m ³)
Glyphosate	Not set	

No biological limits applicable.

8.2 Engineering controls

Use in well-ventilated area or outdoors.

8.3 Personal protective equipment (PPE)

The following Standards provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Eye/Face Protection: Wear safety glasses with side shields or chemical goggles.

Skin Protection: Wear impervious gloves (e.g. nitrile, butyl), and recommended to wear coveralls, socks and chemical resistant footwear. For overhead spray exposure, and recommended to wear chemical resistant headgear. Ensure all skin areas are covered.

Respirator: Use outdoors in well-ventilated area. Where product is being sprayed and a mist could be produced a respirator should be worn. It should be fitted with a type G cartridge, suitable for agricultural chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear light yellow liquid
Odour	Surfactant odour
Odour threshold	Not known
pH	4.0 – 6.0
Melting/Freezing Point	No data available
Boiling Point /Range	>100 °C
Flash point	Non flammable
Flammability (solid, gas)	Not applicable
Vapour Pressure	No data available
Vapour density	No data available
Specific gravity	~1.17 @ 20°C
Solubility	Soluble in water
Partition Co-efficient n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Not applicable
Particle characteristics	Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

This product is unlikely to react or decompose under normal storage conditions.

10.2 Chemical stability

Stable under normal temperatures and pressure for storage and use.

10.3 Conditions to Avoid

Heat, storage in direct sunlight.

10.4 Incompatible materials and possible hazardous reactions

Strong oxidising agents, copper and zinc sulphate.

10.5 Hazardous decomposition products

Fire Decomposition: Carbon dioxide, carbon monoxide, nitrogen oxides, phosphorous oxides. and other unspecified compounds.

10.6 Polymerisation

Not known to occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Health hazard information

The product is classified for health hazards according to an assessment of information on product.

11.2 Toxicological information

Acute toxicity:	Not classified.
Aspiration hazard:	Not classified.
Respiratory irritation:	May be slightly irritating to throat and upper respiratory system.
Skin corrosion/irritation	Mild skin irritant.
Serious eye damage/irritation	Serious eye irritant.
Respiratory or skin sensitisation	Not classified.
Germ cell mutagenicity:	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity – single/repeated exposure	Not classified.
Narcotic effects	Product contains no ingredient identified as causing narcotic effects.

11.3 Toxicological data: Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

This product is classified as being toxic to aquatic life with long lasting effects

12.2 Environmental Fate

Breakdown in soil and groundwater: Glyphosate will degrade through action of soil micro-organisms although rate is dependent on soil and climatic conditions.

Bioaccumulation: Not expected to bioaccumulate.

Partition coefficient (octanol/water): Not available.

Soil mobility: Glyphosate is strongly adsorbed to most soils and is highly soluble in water..

12.3 Ecotoxicity data:

Glyphosate acid	Fish: Bluegill sunfish LC ₅₀ (96 hr) 45 mg/L; rainbow trout LC ₅₀ (96 hr) 86 mg/L, Fathead minnow LC ₅₀ (96 hr) >1000 mg/L Crustacea: <i>Daphnia magna</i> EC ₅₀ (48 hr) 780 mg/L Diatom: <i>Skeletonema costatum</i> EC ₅₀ (96 h): 1.2 mg/L (chlorophyll decrease) Algae; <i>Scenedesmus subspicatus</i> E ₆ C ₅₀ (72h): 485 mg/L
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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product Disposal

Refer to product label. If possible, dispose of by using according to the label. Otherwise dispose of to an approved landfill in accordance with local regulations.

13.2 Container Disposal

Refer to product label. Do not use packaging for storage of other products. Empty packaging should be disposed of to an approved recycler or crushed and sent to approved landfill.

SECTION 14: TRANSPORT INFORMATION

Road and Rail Transport:

Classified as Dangerous Good Class 9 according to NZS5433 Transport of Dangerous Goods on Land

Marine Transport (IMO/IMDG):

Classified as Dangerous Good Class 9 by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Classified as Dangerous Good Class 9 by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulation for transport by air.

UN Number:	3082
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARODUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS GLYPHOSATE 36%)
Transport hazard class(es)	9
Packing Group:	III
HAZCHEM:	3Z
Special Precautions for User:	
IMDG Marine pollutant:	No
Transport in Bulk:	-

SECTION 15: REGULATORY INFORMATION

15.1 HSNO Act 1996

Hazardous substance according to Hazardous Substances (Hazard Classification) Notice 2020.

Approved substance number:	HSR101010
Hazardous classifications:	Eye irritation, Category 2; Hazardous to aquatic environment, chronic, Category 2
Controls:	Refer to control on www.epa.govt.nz for complete wording for variation Controls.
	Safety Data Sheet: Any quantity
	Restricted to workplace only: No
	Quantity that requires management in accordance with HSW HS Regulations: 1000 L
	Quantity for secondary containment and emergency response plan: 1000 L
	Quantity for signage: 1000 L
	Certified Handler: No
	Qualified Handler: No
	Record keeping (3kg or more applied within 24 hours in a place where likely to enter air or water and leave application area) Yes
Additional information:	Refer to HS Notices (www.epa.govt.nz) and HSW HS Regulations (www.worksafe.govt.nz)

15.2 ACVM Act 1997

Registration number: Not applicable (exempt use)
 Refer to www.foodsafety.govt.nz for registration conditions.

SECTION 16: OTHER INFORMATION

16.1 Date of preparation or last revision of SDS

SDS issued	24 th August 2022
SDS supersedes	8 th August 2018
Reason issued	Review of SDS and update to GHS hazardous classifications

16.2 ABBREVIATIONS

ADI	Acceptable Daily Intakes
CAS number	Chemical Abstracts Service Registry Number
CCID	Chemical Classification Identification Database
EPA	Environmental Protection Authority
ErC₅₀	Half maximal Effective Concentration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
HSNO	Hazardous Substances and New Organisms
HS	Health and Safety
HSR	Hazardous Substances Register
IARC	International Agency for Research on Cancer
LC₅₀	Median Lethal Concentration
LD₅₀	Median Lethal Dose
SDS	Safety Data Sheets
NOAEL	No Observable Adverse Effect Level
NOEL	No Observable Effect Level
NOS	Not otherwise specified
STEL	Short Term Exposure Limit
SWA	Safety Work Australia
TWA	Time-Weighted Average
UN Number	United Nations Number

16.3 REFERENCES

EPA CCID and Approved Substance databases
PPDB- Pesticides Properties DataBase

16.4 OTHER

KNOCKDOWN™ is a trademark of Grosafe Chemicals Ltd

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End of Safety Data Sheet