

## SAFETY DATA SHEET

# KNOCKDOWN PLUS®

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

#### 1.1 Identifiers

Product name: KNOCKDOWN PLUS®  
Contains 600g/litre triclopyr as the butoxy ethyl ester in the form of an emulsifiable concentrate.

#### 1.2 Recommended use of the chemical and restrictions on use

Product Use: Grass friendly herbicide for the control of gorse, broom, blackberry and other brush weeds. Also for broadleaf weed control in turf.

#### 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](mailto: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: HSR100917

**Hazard Classifications:** Flammable liquid Category 4, Acute oral toxicity Category 4, Aspiration hazard Category 1, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

#### 2.2 Label elements:

##### Pictograms:



**Signal Word:** DANGER

#### Hazard statements:

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways



- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation
- H373 May cause organ damage through prolonged or repeated exposure.
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects.  
Hazardous to soil organisms.  
Hazardous to terrestrial vertebrates.

**Precautionary statements:**

*Prevention*

- P102 Keep out of reach of children.
- P103 Read label before use.
- P210 Keep away from flames and hot surfaces.
- P261 Do not breathe in vapours/mist/spray.
- P264 Wash hands and any exposed skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the work place.
- P280 Wear protective gloves, protective clothing and eye/face protection.

*Response*

- P101 If medical advice is needed, have product container or label at hand.
- P301 + P310 IF SWALLOWED: Immediately call a Poison Centre or doctor
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P333 + P313 If skin irritation or rash occurs, get medical advice.
- P314 Call a POISON CENTRE or doctor if you feel unwell.
- P363 Wash contaminated clothing before re-use.
- P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- + P338
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P391 Collect spillage.
- P370 + P378 In case of fire: Use dry chemical, water spray (fog), foam or carbon dioxide for extinction

*Storage*

- P403 + P233 Store in a well-ventilated area. Keep cool.
- P405 Store locked up.

*Disposal*

- P501 Dispose of contents/container in accordance with local regulations.

**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.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients                            | CAS          | Proportion % w/w   |
|--|--------------|--------------------|
| Triclopyr butoxyethyl ester            | 64700-56-7   | 70-75%*            |
| Naphtha (petroleum) hydrotreated heavy | 64742-48-9   | Balance up to 100% |
| Other Ingredients                      | Trade Secret | Balance            |

This is a commercial product whose exact ratio of components may vary slightly.  
\*triclopyr acid (CAS No. 55665-06-3) 600g/L

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### General Information:

For advice call the National Poison Centre, telephone 0800 POISON [0800 764 766] for advice. Have produce container or label or at hand.

**IF SWALLOWED:** Do NOT induce vomiting. Rinse mouth with water. Immediately call a Poison Centre or doctor

**IF ON SKIN:** Wash with plenty of soap and water. Call a POISON CENTRE or doctor if you feel unwell. Wash contaminated clothing before re-use.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical advice/attention.

**IF INHALED:** Remove to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor for advice if you feel unwell.

#### 4.2 Symptoms caused by exposure

None specified.

#### 4.3 Medical attention and special treatment

Treat symptomatically.

### SECTION 5: FIRE FIGHTING MEASURES

#### 5.1 Suitable extinguishing media

Dry chemical, water spray (fog), foam or carbon dioxide.

#### 5.2 Specific hazards arising from the chemical

Toxic/harmful fumes – hydrogen, chloride and others.

#### 5.3 Special protective equipment and precautions for fire fighters

Wear full personal protective equipment including with self-contained breathing apparatus (SCBA). Contain run-off to prevent run-off to sewers and waterways.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

In the event of an accidental spill, wear full protective clothing including respiratory, eye and face protection. Wash contaminated personal protective equipment and clothing, and dry before re-use.

Ensure sources of ignition are removed or isolated.



## 6.2 Environmental precautions

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

## 6.3 Methods and materials for containment and cleaning up

Contain spilled material. For small liquid spills, use absorbent material such as sand, soil, 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

Keep out of reach of children. Read the label before use. Use only outdoors or in well-ventilated environment. Keep away from open flames and hot surfaces. Avoid contact with skin and eyes. Do not breathe vapour, spray or mists. Wear coat/trouser (overalls), boots, waterproof hat, respirator, gloves and eye/face protection when handling product. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using. Contaminated work clothing should not leave the work place. 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 locked up in the closed original packaging out of reach of children and in a dry, cool, well-ventilated area. Keep away from food, drink and animals feeding stuffs.

## SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

### 8.1 Control parameters – exposure standards, biological monitoring

None specified.

### 8.2 Engineering controls

Use outdoors to ensure adequate ventilation.

### 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 protective glasses or goggles when mixing or applying product.

**Skin Protection:** Wear impervious gloves, coat, trousers, waterproof hat. Ensure all skin areas are covered.

**Respirator:** 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 brown liquid                |
| Odour                  | Characteristic, petroleum solvent |
| Odour threshold        | No data available                 |
| pH                     | 4.0-6.0 (1% aq)                   |
| Melting/Freezing Point | No data available                 |
| Boiling Point /Range   | No data available                 |
| Flash point            | 75°C                              |



|  |                               |
|--|-------------------------------|
| Flammability (solid, gas)                    | Not applicable                |
| Upper/lower flammability or explosive limits | No data available             |
| Vapour Pressure                              | No data available             |
| Vapour density                               | No data available             |
| Specific density                             | 1.2 g/cm <sup>3</sup> at 20°C |
| Solubility                                   | Emulsifies in water           |
| Partition Co-efficient n-octanol/water       | No data available             |
| Auto-ignition temperature                    | No data available             |
| Decomposition temperature                    | No data available             |
| Viscosity                                    | No data available             |
| Particle characteristics                     | No data available             |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Not available.

### 10.2 Chemical stability

Store in the closed original container in a dry, cool, well-ventilated area and out of direct sunlight. Stable under ambient conditions for a period of at least 2 years. Unlikely to spontaneously decompose.

### 10.3 Conditions to Avoid

Sources of heat, ignition, incompatible materials.

### 10.4 Incompatible materials and possible hazardous reactions

Explosives, oxidising agents, organic peroxides.

### 10.5 Hazardous decomposition products

**Fire Decomposition:** Smoke, hydrogen, chloride and other unspecified compounds.

**Polymerisation:** This product will not undergo polymerisation reactions.

## 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:  | Classified as toxic if ingested.  |
| Aspiration hazard:   | Classified as an aspiration hazard.   |
| Respiratory irritation:                                    | Not classified.   |
| Skin corrosion/irritation:                                 | Not classified.   |
| Serious eye damage/irritation:                             | Classified as may cause eye irritation.   |
| Respiratory or skin sensitisation:                         | Classified as a skin sensitiser.  |
| Germ cell mutagenicity:                                    | No ingredients in product identified as presumed or suspected mutagens.                                   |
| Carcinogenicity:   | No ingredients in product identified as presumed or suspected carcinogens.                                |
| Reproductive toxicity:                                     | Not classified.   |
| Specific target organ toxicity – single/repeated exposure: | Classified as causing damage to organs or systems (neurotoxicity) through prolonged or repeated exposure. |



Narcotic effects:

### 11.3 Toxicological data:

|                             |  |
|-----------------------------|--|
| Triclopyr butoxyethyl ester | <p>Oral LD50 (rat) - &gt;2000 mg/kg (male and female)</p> <p>Dermal LD50 (rabbit) – &gt; 2000 mg/kg (male and female)</p> <p>Inhalation LD50 (Rat) – No adverse effects are anticipated from single exposure to vapour</p> <p>Eye irritation (Rabbit) – Slight irritation</p> <p>Skin irritation (Rabbit) – No irritation</p> <p>Skin sensitization (Rat) – Mild sensitisation potential</p> |
|-----------------------------|--|

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

This product is classified as being very toxic to aquatic life with long lasting effects, hazardous to soil organisms, and hazardous to terrestrial vertebrates.

### 12.2 Environmental Fate

**Persistence and Biodegradability:**

Not where as DT<sub>50</sub> is > 30 days.

**Bioaccumulation:** Will not accumulate in the soil or water.

**Soil mobility:** No data

**Other adverse effects:** No data

## 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 Agrecovery® chemical recovery service or at an approved landfill in accordance with local regulations.

### 13.2 Container Disposal

Refer to product label. Do not use packaging for storage of any other products. Triple rinse empty container and add rinsate to spray tank. Submit container to Agrecovery® for recycling, or crush and send 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.

|                                   |  |
|-----------------------------------|--|
| <b>UN Number:</b>                 | 3082   |
| <b>UN Proper Shipping Name:</b>   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TRICLOPYR 60%) |
| <b>Transport hazard class(es)</b> | 9  |



|                                      |               |
|--------------------------------------|---------------|
| <b>Packing Group:</b>                | III           |
| <b>Special Precautions for User:</b> |               |
| <b>IMDG Marine pollutant:</b>        | Yes           |
| <b>Transport in Bulk:</b>            | Not available |
| <b>HAZCHEM</b>                       | 3Z            |

## SECTION 15: REGULATORY INFORMATION

### 15.1 HSNO Act 1996

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

**Approved substance number:** HSR100917

**Hazardous classifications:** Flammable liquid Category 4, Acute oral toxicity Category 4, Aspiration hazard Category 1, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

**Controls:** refer to HS Notices ([www.epa.govt.nz](http://www.epa.govt.nz)) and HSW HS Regulations ([www.worksafe.govt.nz](http://www.worksafe.govt.nz))

**Certified handler:** Not applicable

**Tracking:** Not applicable

**Qualifications:** A person mixing, loading or applying this product must be suitably qualified or under the supervision of a suitably qualified person. Refer to Schedule 10 of the Hazardous Substances (Hazardous Property Controls) Notice 2017 for details.

**International Agreements:** Not applicable

**Signage trigger quantity (Schedule 3):** 100 L

**Emergency Response Plan trigger quantity (Schedule 5):** 100 L

**Secondary Containment trigger quantity (Schedule 16):** 100 L

**Record Keeping:** If 3 kg or more of the substance is applied within 24 hours, in a place where the substance is likely to enter air or water and leave the application area, a PCBU with management or control of the substance must ensure that a written record is kept of each application of the substance.

**Environmental exposure limits:** None set.

**Tolerable exposure limits:** None set

### 15.2 ACVM Act 1997

**Registration number:** P9568

Refer to [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions.

## SECTION 16: OTHER INFORMATION

### 16.1 Date of preparation or last revision of SDS

**SDS issued** 25 October 2023



**SDS supersedes** 23 July 2021  
**Reason issued** Update to GHS

## 16.2 ABBREVIATIONS

|                         |   |
|-------------------------|---|
| <b>ADI</b>              | Acceptable Daily Intakes  |
| <b>CAS number</b>       | Chemical Abstracts Service Registry Number  |
| <b>CCID</b>             | Chemical Classification Identification Database   |
| <b>EPA</b>              | Environmental Protection Authority  |
| <b>ErC<sub>50</sub></b> | Half maximal Effective Concentration  |
| <b>GHS</b>              | Globally Harmonized System of Classification and Labelling of Chemicals   |
| <b>Hazchem Code</b>     | Emergency action code of numbers and letters that provide information to emergency services especially firefighters |
| <b>HSNO</b>             | Hazardous Substances and New Organisms  |
| <b>HS</b>               | Health and Safety   |
| <b>HSR</b>              | Hazardous Substances Register   |
| <b>IARC</b>             | International Agency for Research on Cancer   |
| <b>LC<sub>50</sub></b>  | Median Lethal Concentration   |
| <b>LD<sub>50</sub></b>  | Median Lethal Dose  |
| <b>SDS</b>              | Safety Data Sheets  |
| <b>NOAEL</b>            | No Observable Adverse Effect Level  |
| <b>NOEL</b>             | No Observable Effect Level  |
| <b>NOS</b>              | Not otherwise specified   |
| <b>STEL</b>             | Short Term Exposure Limit   |
| <b>SWA</b>              | Safety Work Australia   |
| <b>TWA</b>              | Time-Weighted Average   |
| <b>UN Number</b>        | United Nations Number   |

## 16.3 REFERENCES

Manufacturer information  
 EPA CCID and Approved Substance databases  
 University of Hertfordshire Pesticides Properties Database

## 16.4 OTHER

KNOCKDOWN PLUS® is a registered trademark of Grosafe Chemicals Ltd

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End of Safety Data Sheet