

SAFETY DATA SHEET

PROFICIENT®

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Identifiers

Product name: **Proficient®**
 Other Name(s): 100g/kg prohexadione-calcium in the form of a water dispersible granule

1.2 Recommended use of the chemical and restrictions on use

Product Use: A plant growth regulator for the suppression of shoot growth in apples.

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 (24 hour) 0800 CHEMCALL (0800 243 622)

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance

Hazardous substance according to Hazardous Substances and New Organisms (HSNO) Act 1996

HSNO Approval: HSR101225

Hazard Classifications: Designed for biocidal action

2.2 Label elements:

Pictograms: None

Signal Word: None

Hazard statements:

- -

Precautionary statements:

Prevention

P102 Keep out of reach of children.

P103 Read label before use.

Response

- -

Storage

- -

Disposal

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS	Proportion
Prohexadione-calcium	127277-53-6	10% (w/w)
Other ingredients that don't contribute to hazard classifications of this product	-	Balance

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Information:

For advice call the National Poisons Centre 0800 POISON (0800 764 766) (24 hours) or a doctor. If medical attention is needed, have product label or container at hand.

IF SWALLOWED: Get medical advice if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

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

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice if you feel unwell.

Medical attention and special treatment

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Water fog, foam, carbon dioxide or dry chemical.

5.2 Hazards from Combustion Products

Carbon monoxide, Carbon dioxide, nitrogen oxides

5.3 Specific hazards arising from this chemical

Non-combustible material.

5.4 Precautions in connection with fire

Isolate fire area. Evacuate downwind. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke. Keep containers cool by spraying with water. Do not breathe or contact smoke, gases or vapours generated. Contain all run off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Have this SDS available. In the event of an accidental spill, wear full protective clothing including respiratory, gloves and eye/face 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, 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

Read the product label before use. Wear protective eye protection/face protection, protective gloves and protective clothing. Wash hands and any exposed skin thoroughly after handling

7.2 Conditions for safe storage

Store in the tightly closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. DO NOT store near feedstuffs or seed.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Occupational exposure limit values

No exposure limit established

8.2 Biological limit values

No exposure limits allocated.

8.3 Engineering controls

Use in well-ventilated areas.

8.4 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, goggles or face shield 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 cartridge suitable for agricultural chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Beige/Brown Granule
Odour	Not available
Odour threshold	Not available
pH	6.0 – 8.0
Melting/Freezing Point	Not available
Boiling Point /Range	Not available
Flash point	Not applicable
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	No data
Vapour Pressure	Not available
Vapour density	No data
Relative density	No data
Solubility	Dispersible in water
Partition Co-efficient n-octanol/water	No data
Auto-ignition temperature	No data
Decomposition temperature	No data

Viscosity	No data
Particle characteristics	No data

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity and stability

Stable under normal conditions of storage in original container.

10.2 Conditions to Avoid

Active ingredient decomposes at elevated temperatures. Do not store for prolonged periods in direct sunlight.

10.3 Incompatible materials

Strong acids. Strong bases. Strong oxidizers

10.4 Hazardous decomposition products

No hazardous reactions if stored and handled as prescribed/indicated.

10.5 Possibility of hazardous reactions

No known hazardous reactions.

10.6 Hazardous Polymerisation

Not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Health hazard information

The product is not classified for health hazards according to an assessment of information on product components.

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

11.2 Toxicological information

ACUTE TOXICITY

Inhalation: This material has been not classified as hazardous for acute inhalation exposure. Acute toxicity estimate (based on ingredients): LC50 > 5.0 mg/L for dust.

Skin contact: This material has not been classified as hazardous for acute dermal exposure. Acute toxicity estimate (based on ingredients): LD50 > 2,000 mg/Kg bw

Ingestion: This material has not been classified as hazardous for acute ingestion exposure. Acute toxicity estimate (based on ingredients): LD50 > 2,000 mg/Kg bw

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has not been classified as a respiratory sensitiser. Skin: this material has not been classified as a skin sensitiser.

Aspiration hazard: This material has not been classified as an aspiration hazard.

Specific target organ toxicity (single exposure): This material has not been classified as a specific hazard to target organs by a single exposure.

Mutagenicity: This material has not been classified as mutagenic.

Carcinogenicity: This material has not been classified as carcinogenic.

Reproductive toxicity (including via lactation): This material has not been classified as a reproductive toxicant.

Specific target organ toxicity (repeat exposure): This material has not been classified as a specific organ toxicant.

Aspiration hazard: This product has not been classified as an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

This product is classified as: Designed for biocidal action.

This material has not been classified as hazardous for acute aquatic exposure. Acute toxicity estimate (based on ingredients): > 100 mg/L.

This material has not been classified as hazardous for chronic aquatic exposure. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/ or BCF < 500 and/or log Kow < 4.

12.2 Persistence and degradability

No information available.

12.3 Mobility

No information available.

12.4 Bioaccumulative Potential

No information available.

12.5 Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product Disposal

Dispose of this product only by using according to the label, or through a Chemical Recovery service or other licensed hazardous waste disposal facility.

13.2 Container Disposal

Triple rinse empty container and add rinsate to spray tank. Submit clean empty container to an Agrecovery® depot for recycling. Alternatively, puncture and dispose of at an approved landfill.

13.3 Precautions

Do not allow product or empty container to enter waterways.

13.4 Disposal methods to avoid

Do not burn empty container. Do not allow product or empty container to enter waterways.

SECTION 14: TRANSPORT INFORMATION

Road and Rail Transport:

Not classified as Dangerous Goods for the transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

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

UN Number: Not applicable

UN Proper Shipping Name: Not applicable

Transport hazard class(es) Not applicable

Packing Group: Not applicable

Hazchem Not applicable

Special Precautions for User: Not applicable

IMDG Marine pollutant:	No
Transport in Bulk:	Not applicable

SECTION 15: REGULATORY INFORMATION

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

Approval number:	HSR101225
Hazardous classifications:	Designed for biocidal action
HSW (HS) Regulations 2017	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Signage Trigger Quantity (Schedule 3)	Not applicable
Emergency Response Plan (Schedule 5)	Not applicable
Secondary Containment (Schedule 16)	Not applicable
Tracking (Schedule 26)	Not required
Tolerable Exposure Level (TEL)	None set
Environmental Exposure Level (EEL)	None set
International Agreements	Not applicable
Additional controls:	The maximum application rate of this substance is 1.5 kg /ha (0.15 kg prohexadione-calcium/ha).
Additional information:	Refer to HS Notices (www.epa.govt.nz) and HSW HS Regulations (www.worksafe.govt.nz)
ACVM registration:	Registered pursuant to the Agricultural Compounds and Veterinary Medicines Act 1997; registration number P010178.

SECTION 16: OTHER INFORMATION

16.1 Date of preparation or last revision of SDS

SDS issued	03 September 2024
SDS supersedes	N/A
Reason issued	Initial SDS

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

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

16.4 OTHER

Proficient® is a registered trademark of Grosafe Chemicals Ltd

Information contained in this Safety Data Sheet is provided in good faith and is believed to be correct at the date hereof. However, it's expected that individuals receiving the information will exercise independent judgement in determining its appropriateness for a particular purpose. Grosafe Chemicals Ltd makes no representation whatsoever as to the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability whatsoever, whether with respect to negligence or otherwise, and no responsibility as permitted by law for any loss or damage arising from or connection with the supply or use of the information in this Safety Data Sheet.

End of Safety Data Sheet