SAFETY DATA SHEET

GROLAN®

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Identifiers

Product name:	**GROLAN®**
Other Name(s):	Water dispersible granule containing Dithianon 700g/kg

1.2 Recommended use of the chemical and restrictions on use

Product Use:	Fungicide for selective control of black spot-on apples, pears and grapes.

1.3 Supplier contact details:

Company name:	Sipcam New Zealand Ltd
Address:	20 Jean Batten Drive Mt Maunganui, 3116
Telephone:	0800 220 002
Email:	info@sipcam.co.nz

Emergency telephone number 0800 CHEMCALL (0800 243 622)

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the Hazardous Chemical

Classified as hazardous according to the criteria of the Hazardous Substances (Hazard Classification) Notice 2020 and in accordance with Hazardous Substances and New Organisms Act 1996.

HSNO Substance Approval: HSR100837

Hazard Classification: Acute Oral Toxicity Cat.3, Acute Inhalation Toxicity Cat.4, Serious Eye Damage Cat.1, Skin Sensitisation Cat.1, Specific Target Organ Toxicity- repeated exposure Cat.1, Hazardous to the Aquatic environment Acute Cat.1, Hazardous to the Aquatic environment Chronic Cat.1, Hazardous to terrestrial vertebrates.

2.2 Label elements:

Pictograms:



Signal Word: **DANGER**

Hazard statements:

H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long-lasting effects.

Prevention statements:

P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash exposed parts of body thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response Statements:

P101	If medical advice is needed, have product container or label at hand
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor
P330	Rinse mouth.
P302+P352	IF ON SKIN: wash with plenty of water.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310/312/314	Immediately call a POISON CENTER or doctor/physician and get medical advice/attention if you feel unwell.
P321	Specific treatment (see label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage Statements:

P405	Store locked up.

Disposal Statements:

P501	Disposal of waste product and containers must be in accord with local bylaws and regulations

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS	Proportion % w/w
Dithianon	3347-22-6	>60%
Sodium Lignosulfonate	8061-51-6	10-30%
Sodium dodecylbenzene sulfonate	25155-30-0	<10%
Kaolin	92704-41-1	10-30%

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]. Have label or Safety Data Sheet at hand.

Ingestion: If swallowed, rinse mouth with water. Do not induce vomiting. Call the NATIONAL POISONS CENTRE or doctor for advice if concerned or 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/attention 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 concerned or person feels unwell.

4.2 Symptoms caused by exposure

No specific symptoms identified.

4.3 Medical attention and special treatment

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Use water spray or fog, foam, CO2 or dry chemical 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 and eye/hand 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

Contain spilled material. Collect granules for reuse or disposal. 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 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

When mixed, loaded or applied, the person needs to be a suitably qualified handler.

When applying product avoid inhalation of spray mist/aerosols. Wear protective equipment such as coat/trouser (overalls), boots, gloves and eye protection.

Wash hands and exposed skin with soap and water after handling and before rest or meal breaks.

Do not eat, drink or smoke when using.

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 sources of heat, food, drink and animal feedstuffs.

Storage of 100kg or more of this product invokes requirements for NZ HSWA Safety Controls (emergency response plan, secondary containment, signage and location certificate)

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters – exposure standards, biological monitoring

Ingredient	TWA (mg/m^3)	STEL (mg/m^3)
Respirable dust (not otherwise classified)	3	
Inhalable dust (not otherwise classified)	10	

8.2 Engineering controls

Recommended to 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 chemical splash goggles if eye contact with dust or spray moist/aerosol is possible.

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

Respirator: Use outdoors in well-ventilated area or use local exhaust ventilation. 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 particulates.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown granules
Odour	Characteristic
Odour threshold	Not known
pH	Approx. 5.0 (1% aqueous dispersion)
Melting/Freezing Point	217^{o}C (for dithianon)
Boiling Point /Range	Product is a non-volatile solid
Flash point	Non flammable
Flammability (solid, gas)	Not applicable
Vapour Pressure	2.7x10^{-6} @20^{o}C (for dithianon)
Vapour density	No data available
Specific gravity/bulk density	500-600kg/m^3 (20^{o}C)
Solubility	Dispersible in water
Partition Co-efficient n-octanol/water	K=3.2
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	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

Avoid storage in direct sunlight, exposure to heat or contact with incompatible materials.

10.4 Incompatible materials and possible hazardous reactions

Strong acids, strong alkalis.

10.5 Hazardous decomposition products

Fire Decomposition: Smoke, carbon 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

The product has not been tested. The statements have been derived from the properties of the individual components.

Acute toxicity:	Classified as being acutely toxic. (Acute oral toxicity Cat 3 and Acute inhalation toxicity Cat 4) **Acute oral toxicity** Experimental/calculated data: LD50rat (oral): 273 mg/kg (Directive 84/449/EEC, B.1) **Acute inhalation toxicity** LC50 rat (by inhalation): Not inhalable due to the physico-chemical properties of the product. **Assessment of acute toxicity** Of pronounced toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Classified as causing serious eye damage Cat 1. Experimental/calculated data: Serious eye damage/irritation rabbit: (Directive 84/449/EEC, B.5)
Respiratory or skin sensitisation	Sensitization after skin contact possible. Information on: Dithianon (Experimental/calculated data: Guinea pig maximization test guinea pig: (OECD Guideline 406) An aqueous solution was tested.)
Germ cell mutagenicity:	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target organ toxicity – single/repeated exposure	Classified as STOT Repeated cat 1. Information on: Dithianon Assessment of repeated dose toxicity: Repeated exposure may affect certain organs. Damages the kidneys.
Narcotic effects	Not classified.

SECTION 12: ECOLOGICAL INFORMATION

The product has not been tested. The statement has been derived from the properties of the individual components.

12.1 Ecotoxicity

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

12.2 Environmental Fate

Information on: Dithianon: According to OECD criteria the product is not readily biodegradable but inherently biodegradable. Bioconcentration factor: 28 (3 d), Oncorhynchus mykiss (OECD Guideline 305 E). Does not accumulate in organisms.

12.3 Ecotoxicity data:

Dithianon	Toxicity to fish: LC50 (96 h) 0.033 mg/l, Oncorhynchus mykiss Aquatic invertebrates: EC50 (48 h) 0.157 mg/l, Daphnia magna Aquatic plants: EC50 (72 h) 0.091 mg/l, Selenastrum capricornutum Chronic toxicity to fish: LC50 (28 d) 0.002 mg/l, Oncorhynchus myki

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 or waste management facility 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 pesticide recycler or crushed and sent to approved landfill.

SECTION 14: TRANSPORT INFORMATION

Road and Rail Transport: Classified as dangerous goods by the criteria of NZS 5433:2020: Transport of Dangerous Goods on Land

Sea Transport: IMDG: Classified as dangerous goods under transport regulations.

Air Transport: IATA/ICAO: Classified as dangerous goods under transport regulations.

<table>
<tr><td colspan="2">

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<tr><td>Rail/Road (NZS 5433:2012)</td><td rowspan="3">UN Shipping Name: PESTICIDE, SOLID, TOXIC, N.O.S. (Dithianon)
UN Number: 2588
Class: 6.1
Packing group: III
Marine Pollutant: Yes</td></tr>
<tr><td>Sea (IMDG)</td></tr>
<tr><td>Air (IATA/ICAO)</td></tr>
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SECTION 15: REGULATORY INFORMATION

15.1 HSNO Act 1996

Classified as hazardous according to the criteria of the Hazardous Substances (Hazard Classification) Notice 2020 and in accordance with Hazardous Substances and New Organisms Act 1996.

15.2 HSWA Guidelines 2019

The Health and Safety at Work (Hazardous Substances) Regulations 2017 bring together health and safety requirements for using hazardous substances at work.
The total amount of substances may activate controls:

Controlled Handlers – not required

Amount of substance that must be secured when unattended; any amount

Location Compliance Certificate: 1000kg

Emergency management plans and signage: 100kg

Fire Extinguishers: not required

15.3 ACVM Act 1997

Registration number: P010209 (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	26 August 2026
SDS supersedes	10 September 2024
Reason issued	Change to Sipcam

16.2 ABREVIATIONS

ADI	Acceptable Daily Intakes
CAS number	Chemical Abstracts Service Registry Number
CCID	Chemical Classification Identification Database
EPA	Environmental Protection Authority
ErC_{50}	Half maximal Effective Concentration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Hazchem Code	Emergency action code that provides information to emergency services
HSNO	Hazardous Substances and New Organisms
HSR	Hazardous Substances Register
HSWA	Health & Safety at Work Act
IARC	International Agency for Research on Cancer
LC_{50}	Median Lethal Concentration
LD_{50}	Median Lethal Dose
SDS	Safety Data Sheets
NOAEL	No Observable Adverse Effect Level
NOEL	No Observable Effect Level
NOS	Not otherwise specified
NZIoC	New Zealand Inventory of Chemicals
PPID	Pesticides Properties Database
STEL	Short Term Exposure Limit
SWA	Safety Work Australia
TWA	Time-Weighted Average
UN Number	United Nations Number

GROLAN® is a trademark of Grosafe Chemicals Limited.

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End of Safety Data Sheet