



SAFETY DATA SHEET

HORTCARE™ LIME SULPHUR

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Identifiers

Product name: **HORTCARE™ LIME SULPHUR**
Other Name(s): Soluble concentrate containing sulphur 200 g/L as calcium polysulphide

1.2 Recommended use of the chemical and restrictions on use

Product Use: Fungicide, insecticide and miticide for horticultural crops

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: HSR000502
Skin irritation Category 2, Serious eye damage Category 1, Hazardous to terrestrial vertebrates

2.2 Label elements:

Pictograms:



Signal Word: DANGER

Hazard statements:

H315 Causes skin irritation.
H318 Causes serious eye damage.
H433 Harmful to terrestrial vertebrates.

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.

Precautionary statements:*Prevention*

P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye/ face protection and protective gloves.

Response

P101	If medical advice is needed, have product container or label at hand.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor.

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
Calcium polysulphide	1344-81-6	25 -30*
Other ingredients*	Trade secret	balance

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

* To give equivalent to 200 g/L sulphur

**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 occurs.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor for advice.

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

Unlikely to cause harmful effects under normal conditions of handling and use.

4.3 Medical attention and special treatment

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Use water spray or fog, or foam, as appropriate for surrounding materials. Avoid using a water jet. 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

Contain spilled material. For small liquid spills, use absorbent material 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.

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. Avoid contact with skin and eyes. Avoid inhalation of spray mist/aerosols. Wear protective equipment such as coat/trouser (overalls), boots, gloves and eye protection. Do not eat, drink or smoke when using this product. 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 must be in accordance with the current version of NZS 8409 Management of Agrichemicals. Storage of more than 1000L 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

Ingredient	TWA (mg/m ³)	STEL (mg/m ³)

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 chemical splash goggles if eye contact 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	Orange/red liquid
Odour	Non-specific
Odour threshold	Not known
pH	10.0 – 12.0 (neat)
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	ca 1.25
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	No data available
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

Contact with oxidising agents (e.g. chlorine, ammonium nitrate) and acids.

10.4 Incompatible materials and possible hazardous reactions

None identified. Hazardous decomposition products formed at high temperatures.

10.5 Hazardous decomposition products

Fire Decomposition: Carbon dioxide, carbon monoxide, smoke 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:	Product is not classified for acute toxicity if ingested, in contact with skin or inhaled.
Aspiration hazard:	Product is not classified with aspiration hazard.
Respiratory irritation:	Calcium sulphide is classified by ECHA as a respiratory irritant.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
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:

Product	Not available
Calcium sulphide (CAS No 1344-81-6)	Oral, rat LD ₅₀ 1343 mg/kg b.w. Dermal, rat LD ₅₀ 2000 mg/kg b.w. Inhalation, rat LC ₅₀ (4 hr) >3.6 mg/L

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

This product is classified as being harmful to terrestrial vertebrates.

12.2 Environmental Fate

Breakdown in soil and groundwater: Not rapidly biodegradable ;DT₅₀ (typical), 730 days

Bioaccumulation: Not expected to bioaccumulate.

Partition coefficient (octanol/water): Not available.

Soil mobility: Low

12.3 Ecotoxicity data:

Calcium sulphide (CAS No 1344-81-6)	Fish; <i>Oncorhynchus mykiss</i> LC ₅₀ (96 hr) >28.6 mg/L Crustacea; <i>Daphnia pulex</i> EC ₅₀ (48 hr) >6.6 mg/L Alga; <i>Pseudokirchneriella subcapitata</i> EC ₅₀ (7 d) >12.6 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:

Not classified as Dangerous Good according to NZS5433 Transport of Dangerous Goods on Land

Marine Transport (IMO/IMDG):

Not Classified as Dangerous Good 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: Non- regulated

UN Proper Shipping Name:

Transport hazard class(es)

Packing Group:

HAZCHEM:

Special Precautions for User:

IMDG Marine pollutant:

Transport in Bulk: -

SECTION 15: REGULATORY INFORMATION

15.1 HSNO Act 1996

Hazardous substance according to Hazardous Substances (Classification) Notice 2017.

Approved substance number: HSR000502

Hazardous classifications: Skin irritation Category 2, Serious eye damage Category 1, Hazardous to terrestrial vertebrates

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
Qualified Handler:	No

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: P8545 HORTCARE™ LIME SULPHUR

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 28th January 2022

SDS supersedes SDS dated July 2017

Reason issued Update SDS format, update hazard classifications to GHS descriptions, review information.

16.2 ABBREVIATIONS

ADI	Acceptable Daily Intakes
CAS number	Chemical Abstracts Service Registry Number
CCID	Chemical Classification Identification Database
ECHA	European Chemicals Agency
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

HORTCARE™ is a trademark of Grosafe Chemicals Ltd

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End of Safety Data Sheet