

SAFETY DATA SHEET
HORTCARE® ABAMECTIN
SECTION 1: Identification

Product name: HORTCARE® Abamectin
Chemical Name: Avermectin B1; Abamectin
Recommended Use: Insecticide, miticide
Restriction of use: Refer to section 15
Company: Grosafe Chemicals Ltd.
Address: 20 Jean Batten Drive, Mt Maunganui. (P.O. Box 14450 Tauranga, 3143)
Email: info@grosafe.co.nz
Telephone: 0800 220 002
Emergency Telephone Numbers: 0800 CHEMCALL (0800 243622)
 The National Poisons Centre, 0800 POSION (0800 764 766)

SECTION 2: Hazards Identification

This substance is classified as hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 - EPA Approval No: HSR000734

Pictograms


Signal word: DANGER

Hazard Classification	Hazard Code	Hazard Statement
Flammable Liquid 4	H227	Combustible liquid
Acute Toxic 4 (inhalation)	H332	Harmful if inhaled
Acute Toxic 4 (oral)	H302	Harmful if swallowed
Skin Irritant 2	H315	Causes skin irritation
Eye Irritant 2	H319	Causes serious eye irritation
Reproductive Toxicity 1	H360	May damage fertility or the unborn child
Effect on or via lactation	H362	May cause harm to breast-fed children
Specific Target Organ Toxicant (repeated exposure) 2	H373	May cause damage to organs through prolonged or repeated exposure
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long
Hazardous to soil organisms		Hazardous to soil organisms
Hazardous to terrestrial vertebrates		Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates		Hazardous to terrestrial invertebrates

Prevention code	Prevention Statement
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands and exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P260	Do not breath vapour or spray/mist.
Response code	Response Statement
P370+P378	In case of fire use XXX to extinguish
P301+P312	IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P330	Rinse mouth.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortably for breathing.
P312	Call a POISON CENTRE or doctor if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P332+P313	If skin irritation occurs: Get medical advice/attention
P263+P364	Take of contaminated clothing and wash it 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.
P377+P313	If eye irritation persists: Get medical attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
Storage Code	Storage Statement
P405	Store locked up.
P403	Store in a well-ventilated place
Disposal Code	Disposal statement
P501	Wherever possible completely use material in accordance with label directions. Dispose of unwanted contents in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. DO not allow product or containers to enter waterways. Do not burn product or containers.

SECTION 3: Composition / information on ingredients

Ingredients	CAS Number	Content (% w/w)
Abamectin	71751-41-2	2%
N-methyl pyrrolidone	872-50-4	30-60%
N-hexanol	111-27-3	10-30%
Aromatic hydrocarbons	64742-94-5	10-30%
Trade secret ingredients that do not independently trigger hazard classifications	-	To balance

SECTION 4: First Aid Measures

Routes of exposure:

If swallowed Rinse mouth. Call a POISON CENTRE or doctor if you feel unwell.

If on Skin	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention
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 attention.
If inhaled	Remove person to fresh air and keep comfortably for breathing. Call a POISON CENTRE or doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed:

If on skin: Causes skin irritation.

If in eyes: Causes serious eye irritation.

Note to physician: Treat symptomatically.

SECTION 5: Fire Fighting Measures

Hazard type	Combustible liquid.
Fire/explosion Hazard	Will support a fire.
Polymerisation	Not known to occur.
Hazards from combustion products	If involved in fire carbon dioxide, carbon monoxide, may be formed.
Suitable extinguishing media	Small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Large Fires: Alcohol resistant foam or water spray.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Precautions for firefighters and special protective clothing	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Keep up wind. Do not allow washings to reach sewage or effluent systems. Cool closed containers exposed to fire with water spray.
HAZCHEM CODE	2Z

SECTION 6: Accidental Release Measures

Wear personal protective equipment (as detailed in Section 8).

Evacuate the area of unnecessary personnel.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent entry of chemical or used/damaged containers into sewers, drains, streams, or waterways. If necessary, inform the police and the Regional Council.

Methods and material for containment and cleaning up:

Prevent liquid from entering sewers, waterways, or low areas by bunding or dyking. Absorb spills with an inert material (such as vermiculite, earth, sand or synthetic absorbent substance) and place into labelled containers for disposal. Wash area with water and alkaline detergent. Then absorb any remaining liquid with further inert material. Dispose of the waste safely in an approved facility. (See section 13 for disposal instructions).

SECTION 7: Handling and Storage

Precautions for Handling:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area
- Do not breath vapour or spray/mist.
- Wash hands and exposed skin thoroughly after handling.

Precautions for Storage:

Keep out of reach of children and animals. Store locked up in tightly closed, original container in a cool, dry, well-ventilated area, out of direct sunlight. Do not store with oxidizing agents, corrosives, food, feedstuffs, fertilisers, and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals.

This substance is subject to a requirement for an emergency management response plan, secondary containment and signage, whenever it is held in quantities of 100 kg or more, either alone or in aggregate with other hazardous substances. See Hazardous Substances (Emergency Management) Regulations 25 to 42.

SECTION 8: Exposure Control / Personal Protection

Workplace exposure standards (provided for guidance only)

Substance	TWA ppm mg/m ³	STEL ppm mg/m ³
N-methyl pyrrolidone	25ppm/103mg/m ³	75ppm/309mg/m ³
Butylated hydroxytoluene	10mg/m ³	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES- Product Name: Phoenix Fungicide Issued by: Technical Compliance Consultants (NZ) Ltd Date of SDS: 28 May 2019 Tel: 64 9 475 5240 www.techcomp.co.nz Page 4 TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering controls

Use only outdoors or in a well-ventilated area. Keep container tightly closed.

Personal Protective Equipment

Skin	Chemical resistant gloves (e.g., nitrile), overalls and boots.
Eyes	Safety goggles or face shield. Facilities storing or utilizing this material should be equipped with an eyewash facility.
General	Do not eat, drink, or smoke when handling this product. Do not breathe fumes or spray/mist. Wash hands and exposed skin with soap and water after handling.

SECTION 9: Physical and Chemical Properties

Appearance	Yellow liquid
Odour	Aromatic odour
Odour Threshold	No data
pH	4.5 - 7

Melting point/freezing point	No data
Boiling point	No data
Flash point	>60°C
Flammability	Combustible
Upper and lower flammability or explosive limits	No data
Vapour pressure	No data
Vapour density	No data
Density	c.a 0.93 @ 25°C
Solubility	Forms an emulsion in water.
Partition Coefficient: n-octanol/water	No data
Auto-ignition temperature	No data
Decomposition temperature	No data
Kinematic viscosity	No data
Particle characteristics	Not applicable

SECTION 10: Stability and Reactivity

Stability of substance	Stable under normal storage conditions.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Incompatible materials	Acids, alkalis, oxidizing agents.
Hazardous decomposition products	If involved in fire, carbon dioxide, carbon monoxide, may be formed.

SECTION 11: Toxicological Information

Acute toxicity - oral	LD ₅₀ (rat) 8.7 mg/kg (abamectin)
Acute toxicity - dermal	LD ₅₀ (rabbit) >1600 mg/kg (abamectin)
Acute toxicity - inhalation	No data
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes eye irritation (rabbit): Mild to moderate corneal irritation in unwashed eyes and mild conjunctiva irritation in unwashed eyes. All effects reversed in 7 days.
Respiratory or skin sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Not applicable
Reproductive toxicity	Suspected of damaging fertility or the unborn child. NOAEL 0.12 mg/kg bw/day (abamectin). May cause harm to breast-fed children.
Specific target organ toxicity – single exposure	Not applicable
Specific target organ toxicity – repeated exposure	May cause neurotoxicity through prolonged or repeated exposure.
Aspiration hazard	Not applicable

SECTION 12: Ecological Information

Ecotoxicity (abamectin)

Fish	Acute: Rainbow trout LC ₅₀ 0.0036 mg/L 96 hour Chronic: Rainbow trout LC ₅₀ LOEC 0.0093 ug/L
Crustaceans	Acute: Daphnia magna EC ₅₀ 0.00034 mg/L 48 hour Chronic: Daphnia magna NOEC 21 days 0.03 ug/L
Aquatic plants	No data
Algae	No data
Birds	Acute: Bobwhite quail LD ₅₀ >2000 mg/kg Dietary: Bobwhite quail LC ₅₀ >3102 mg/kg; mallard duck 383 mg/kg
Earthworm	No data
Bees	Bees LD50 (oral) >0.009 µg/bee; LD50 (contact) 0.002 µg/bee
Persistence and degradability	Mean soil half-life 80.6 days
Potential to bioaccumulate	Low
Mobility in soil	Low to moderate (dependant on soil organic matter)
Other adverse effects	No data

SECTION 13: Disposal Considerations

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

Container: 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.

Avoid contamination of any water supply with product or empty container

Precautions: Do not allow product or empty container to enter waterways.

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

SECTION 14: Transport Information

This product is classified as a **Dangerous Good** for transport in NZ; NZS 5433



Road and Rail Transport

UN No	2902
Class-primary	9
Packing group	III
Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (CONTAINS ABAMECTIN 1.9%)

Air Transport

UN No	2902
Class-primary	9
Packing group	III
Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (CONTAINS ABAMECTIN 1.9%)

Marine Transport

UN No	2902
Class-primary	9
Packing group	III
Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (CONTAINS ABAMECTIN 1.9%)
Marine Pollutant	YES

SECTION 15: Regulatory Information

This substance is hazardous according to the *Hazardous Substances (Hazard Classification) Notice 2020* - EPA Approval No: HSR000734

Hazard Classifications: Flammable Liquid 4, Acute Toxic 4 (inhalation), Acute Toxic 4 (oral), Skin Irritant 2, Eye Irritant 2, Reproductive Toxicity 1, Effect on or via lactation, Specific Target Organ Toxicant (repeated exposure) 2, Aquatic Acute 1, Aquatic Chronic 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Signage Trigger Quantity (Schedule 3)	100L
Emergency Response Plan (Schedule 5)	100L
Secondary Containment (Schedule 16)	100L
Tracking (Schedule 26)	Not required

Controls**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. Refer HPC Section 48 (3) for record requirements.

Qualifications

Anyone who mixes, loads, or applies this product, either by air or ground based methods, is required to be suitably qualified, or must receive guidance and, if required, assistance from a suitably qualified person. Refer to Schedule 10 of the Hazardous Substances (Hazardous Property Controls) Notice 2017 for a list of suitable qualifications.

HSNO Additional controls

Do not apply onto or into water.

Tolerable Exposure Level (TEL)

None set

Environmental Exposure Limit (EEL)

An EEL (water) has been set for abamectin of 0.000001 mg/L

ACVM Approval Number

P8695. See www.foodsaftey.govt.nz for registration conditions

SECTION 16: Other Information

Glossary

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997
EC50	Median effective concentration
EEL	Environmental exposure limit
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms Act 1996
HSW	Health and Safety at Work Act 2015
HSW (HS) Regulations	Health and Safety at Work (Hazardous Substances) Regulations 2017
LC50	Lethal concentration that will kill 50% of the test organism
LD50	Lethal dose to kill 50% of the test organism
WES	Workplace exposure Limit

References

1. EPA Hazardous substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition
3. Assigning a hazardous substance to a HSNO approval (Aug 2013)
4. Transport of Dangerous Goods ON Land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017
6. United States Environmental Protection Agency Memorandum USEPA PC Code: 122804

Disclaimer

This document has been issued by Grosafe Chemicals Limited and serves as their Safety Data Sheet (SDS). It is based on information concerning the product which is held by Grosafe Chemicals Ltd or has been obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. While Grosafe Chemicals Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to the accuracy or completeness. As far as lawfully possible, Grosafe Chemicals Ltd accept not liability for any loss, injury, or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of the reliance on the information contained in this SDS. The information herein is given in good faith, but no warrant, express or implied, is made.