

Triclabendazole / Abamectin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	5341816-00014	Date of first issue: 05.12.2019

SECTION 1: IDENTIFICATION

Product name : Triclabendazole / Abamectin Formulation

Manufacturer or supplier's details

Company : Intervet Australia Pty Limited (trading as MSD Animal Health)

Address : 91-105 Harpin Street
Bendigo 3550, Victoria Australia

Telephone : 1 800 033 461

Emergency telephone number : Poisons Information Centre: Phone 13 11 26

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Liver, Blood)

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H373 May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.

Precautionary statements :

Prevention:

P260 Do not breathe mist or vapours.

Response:

P314 Get medical advice/ attention if you feel unwell.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

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Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Triclabendazole	68786-66-3	≥ 10 - < 30
Silicon dioxide	7631-86-9	< 10
Benzyl alcohol	100-51-6	< 1
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	71751-41-2	< 0.5

SECTION 4. FIRST AID MEASURES

General advice	: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	: If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	: Wash with water and soap as a precaution. Get medical attention if symptoms occur.
In case of eye contact	: Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: May cause damage to organs through prolonged or repeated exposure if swallowed.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	: Treat symptomatically and supportively.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
Unsuitable extinguishing media	: None known.
Specific hazards during fire-fighting	: Exposure to combustion products may be a hazard to health.

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Hazardous combustion products	: Carbon oxides Nitrogen oxides (NO _x) Metal oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Hazchem Code	: •3Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	: Use only with adequate ventilation.
Advice on safe handling	: Do not breathe mist or vapours. Do not swallow.

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- Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Conditions for safe storage : Keep in properly labelled containers.
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Triclabendazole	68786-66-3	TWA	30 µg/m ³ (OEB 3)	Internal
Further information: DSEN				
		Wipe limit	100 µg/100 cm ²	Internal
Silicon dioxide	7631-86-9	TWA (Respirable dust)	2 mg/m ³	AU OEL
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	71751-41-2	TWA	15 µg/m ³ (OEB 3)	Internal
		Wipe limit	150 µg/100 cm ²	Internal

- Engineering measures : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
Minimize open handling.

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Personal protective equipment

Respiratory protection	:	If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
Filter type	:	Particulates type
Hand protection	:	
Material	:	Chemical-resistant gloves
Remarks	:	Consider double gloving.
Eye protection	:	Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection	:	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	suspension
Colour	:	white
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	5.0 - 7.0
Melting point/freezing point	:	< 5 °C
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower	:	No data available

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flammability limit

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 1,050 - 1,080 g/cm³ (20 °C)

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle characteristics

Particle size : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes	: Inhalation Skin contact Ingestion Eye contact
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Acute toxicity

Not classified based on available information.

Components:**Triclabendazole:**

Acute oral toxicity	: LD50 (Mouse): > 8,000 mg/kg LD50 (Rabbit): 206 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 0.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	: LD50 (Rat): > 4,000 mg/kg

Silicon dioxide:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): > 2.08 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg

Benzyl alcohol:

Acute oral toxicity	: LD50 (Rat): 1,200 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 5.4 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Acute oral toxicity	: LD50 (Rat): 24 mg/kg LD50 (Mouse): 10 mg/kg LDLo (Monkey): 24 mg/kg Symptoms: Dilatation of the pupil
Acute inhalation toxicity	: LC50 (Rat): 0.023 mg/l Exposure time: 4 h

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	Test atmosphere: dust/mist
Acute dermal toxicity	: LD50 (Rat): 330 mg/kg
	LD50 (Rabbit): 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:**Triclabendazole:**

Species	: Rabbit
Result	: Mild skin irritation

Silicon dioxide:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

Benzyl alcohol:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Species	: Rabbit
Result	: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:**Triclabendazole:**

Species	: Rabbit
Result	: No eye irritation

Silicon dioxide:

Species	: Rabbit
Result	: No eye irritation
Method	: OECD Test Guideline 405

Benzyl alcohol:

Species	: Rabbit
Result	: Irritation to eyes, reversing within 21 days
Method	: OECD Test Guideline 405

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abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Species	: Rabbit
Result	: Mild eye irritation

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Triclabendazole:**

Result	: Not a skin sensitizer.
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Benzyl alcohol:

Test Type	: Human repeat insult patch test (HRIPT)
Exposure routes	: Skin contact
Species	: Humans
Result	: positive

Assessment	: Probability or evidence of low to moderate skin sensitisation rate in humans
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abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Result	: Not a skin sensitizer.

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**Triclabendazole:**

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
	Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Result: negative

Silicon dioxide:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
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Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative

Benzyl alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Result: negative

Test Type: Alkaline elution assay
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**Triclabendazole:**

Species : Mouse
Application Route : Oral
Exposure time : 2 Years
Result : negative

Species : Rat
Application Route : Oral
Exposure time : 2 Years
Result : negative

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Silicon dioxide:

Species	: Rat
Application Route	: Ingestion
Exposure time	: 103 weeks
Result	: negative

Benzyl alcohol:

Species	: Mouse
Application Route	: Ingestion
Exposure time	: 103 weeks
Method	: OECD Test Guideline 451
Result	: negative

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Species	: Rat
Application Route	: Oral
Exposure time	: 105 weeks
Result	: negative

Species	: Mouse
Application Route	: Oral
Exposure time	: 93 weeks
Result	: negative

Reproductive toxicity

Not classified based on available information.

Components:**Triclabendazole:**

Effects on fertility	: Test Type: Fertility/early embryonic development Application Route: Oral Fertility: NOAEL: 50 mg/kg body weight Result: No effects on fertility Test Type: Fertility/early embryonic development Application Route: Oral Fertility: NOAEL: 50 mg/kg body weight Result: No effects on fertility Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Oral Fertility: NOAEL: 5.5 mg/kg body weight
Effects on foetal development	: Test Type: Embryo-foetal development Species: Rat Application Route: Oral Developmental Toxicity: LOAEL: 200 mg/kg body weight Result: Effects on foetal development

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Test Type: Embryo-foetal development
Species: Rat
Application Route: Oral
Developmental Toxicity: NOAEL: 50 mg/kg body weight

Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: LOAEL: 10 mg/kg body weight
Result: Effects on foetal development
Remarks: Maternal toxicity observed.

Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: NOAEL: 3 mg/kg body weight
Remarks: Maternal toxicity observed.

Silicon dioxide:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Benzyl alcohol:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Effects on fertility : Test Type: Fertility
Species: Rat, male
Application Route: Oral
Result: Effects on fertility

Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Oral
Early Embryonic Development: NOAEL: 0.12 mg/kg body weight
Result: Fetotoxicity

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Effects on foetal development	: Test Type: Embryo-foetal development Species: Mouse Application Route: Oral General Toxicity Maternal: NOAEL: 0.05 mg/kg body weight Developmental Toxicity: NOAEL: 0.2 mg/kg body weight Result: Cleft palate Remarks: Adverse developmental effects were observed Test Type: Embryo-foetal development Species: Rabbit Application Route: Oral Developmental Toxicity: LOAEL: 2 mg/kg body weight Result: Cleft palate, Teratogenic effects, Reduced embryonic survival Remarks: Adverse developmental effects were observed Test Type: Development Species: Rat Application Route: Oral Developmental Toxicity: LOAEL: 1.6 mg/kg body weight Result: Teratogenic effects
Reproductive toxicity - Assessment	: Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.

Components:**Triclabendazole:**

Target Organs	: Liver, Blood
Assessment	: May cause damage to organs through prolonged or repeated exposure.

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Exposure routes	: Ingestion
Target Organs	: Central nervous system
Assessment	: Causes damage to organs through prolonged or repeated exposure.

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Repeated dose toxicity**Components:****Triclabendazole:**

Species	: Rat
NOAEL	: 6.6 mg/kg
LOAEL	: 69 mg/kg
Application Route	: Oral
Exposure time	: 13 Weeks
Target Organs	: Blood

Species	: Dog
NOAEL	: 3.4 mg/kg
LOAEL	: 37 mg/kg
Application Route	: Oral
Exposure time	: 13 Weeks
Target Organs	: Liver, Blood

Species	: Mouse
NOAEL	: 29 mg/kg
Application Route	: Oral
Exposure time	: 24 Months
Target Organs	: Liver

Species	: Rat
NOAEL	: 4 mg/kg
Application Route	: Oral
Exposure time	: 24 Months
Remarks	: No significant adverse effects were reported

Silicon dioxide:

Species	: Rat
NOAEL	: 1.3 mg/m ³
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 13 Weeks

Benzyl alcohol:

Species	: Rat
NOAEL	: 1.072 mg/l
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 28 Days
Method	: OECD Test Guideline 412

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Species	: Rat
NOAEL	: 1.5 mg/kg
Application Route	: Oral
Exposure time	: 24 Months
Target Organs	: Central nervous system

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|| Symptoms : Tremors, ataxia

|| Species : Mouse
 || NOAEL : 4.0 mg/kg
 || Application Route : Oral
 || Exposure time : 24 Months
 || Target Organs : Central nervous system
 || Symptoms : Tremors, ataxia

|| Species : Dog
 || NOAEL : 0.25 mg/kg
 || LOAEL : 0.5 mg/kg
 || Application Route : Oral
 || Exposure time : 53 Weeks
 || Target Organs : Central nervous system
 || Symptoms : Tremors, weight loss
 || Remarks : mortality observed

|| Species : Monkey
 || NOAEL : 1.0 mg/kg
 || Application Route : Oral
 || Exposure time : 14 Weeks
 || Target Organs : Central nervous system

Aspiration toxicity

Not classified based on available information.

Experience with human exposure**Components:****Triclabendazole:**

|| Ingestion : Symptoms: Abdominal pain, Sweating, Headache, Nausea, Vomiting, anorexia, Dizziness, Fatigue, Cough, Fever, pruritis

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

|| Ingestion : Symptoms: May cause, Tremors, Diarrhoea, central nervous system effects, Salivation, tearing

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Silicon dioxide:**

|| Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203

|| Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
 Exposure time: 24 h

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<div style="border-left: 3px double black; height: 100px; margin-left: 10px;"></div>	<p>Method: OECD Test Guideline 202</p> <p>Toxicity to algae/aquatic plants : EC50 (<i>Desmodesmus subspicatus</i> (green algae)): > 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials</p> <p>NOEC (<i>Desmodesmus subspicatus</i> (green algae)): 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials</p>
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Benzyl alcohol:

<div style="border-left: 3px double black; height: 100px; margin-left: 10px;"></div>	<p>Toxicity to fish : LC50 (<i>Pimephales promelas</i> (fathead minnow)): 460 mg/l Exposure time: 96 h</p> <p>Toxicity to daphnia and other aquatic invertebrates : EC50 (<i>Daphnia magna</i> (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202</p> <p>Toxicity to algae/aquatic plants : EC50 (<i>Pseudokirchneriella subcapitata</i> (green algae)): 770 mg/l Exposure time: 72 h Method: OECD Test Guideline 201</p> <p>NOEC (<i>Pseudokirchneriella subcapitata</i> (green algae)): 310 mg/l Exposure time: 72 h Method: OECD Test Guideline 201</p> <p>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (<i>Daphnia magna</i> (Water flea)): 51 mg/l Exposure time: 21 d Method: OECD Test Guideline 211</p>
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abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

<div style="border-left: 3px double black; height: 100px; margin-left: 10px;"></div>	<p>Toxicity to fish : LC50 (<i>Oncorhynchus mykiss</i> (rainbow trout)): 3.2 µg/l Exposure time: 96 h</p> <p>LC50 (<i>Lepomis macrochirus</i> (Bluegill sunfish)): 9.6 µg/l Exposure time: 96 h</p> <p>LC50 (<i>Ictalurus punctatus</i> (channel catfish)): 24 µg/l Exposure time: 96 h</p> <p>LC50 (<i>Cyprinus carpio</i> (Carp)): 42 µg/l Exposure time: 96 h</p> <p>LC50 (<i>Cyprinodon variegatus</i> (sheepshead minnow)): 15 µg/l Exposure time: 96 h</p>
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Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Americamysis): 0.022 µg/l Exposure time: 96 h
		EC50 (Daphnia magna (Water flea)): 0.34 µg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 100 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 0.52 µg/l Exposure time: 32 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.03 µg/l Exposure time: 21 d
		NOEC (Mysidopsis bahia (opossum shrimp)): 0.0035 µg/l Exposure time: 28 d
Toxicity to microorganisms	:	EC50: > 1,000 mg/l Exposure time: 3 h Test Type: Respiration inhibition

Persistence and degradability**Components:****Benzyl alcohol:**

Biodegradability	:	Result: Readily biodegradable.
		Biodegradation: 92 - 96 %
		Exposure time: 14 d

abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Stability in water	:	Hydrolysis: 50 %(< 12 h)
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Bioaccumulative potential**Components:****Benzyl alcohol:**

Partition coefficient: n-octanol/water	:	log Pow: 1.05
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abamectin (combination of avermectin B1a and avermectin B1b) (ISO):

Bioaccumulation	:	Bioconcentration factor (BCF): 52
Partition coefficient: n-octanol/water	:	log Pow: 4

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Mobility in soil**Components:****abamectin (combination of avermectin B1a and avermectin B1b) (ISO):**

Distribution among environmental compartments : log Koc: > 3.6

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(abamectin (combination of avermectin B1a and avermectin B1b) (ISO))

Class : 9

Packing group : III

Labels : 9

Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(abamectin (combination of avermectin B1a and avermectin B1b) (ISO))

Class : 9

Packing group : III

Labels : Miscellaneous

Packing instruction (cargo aircraft) : 964

Packing instruction (passenger aircraft) : 964

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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(abamectin (combination of avermectin B1a and avermectin B1b) (ISO))

Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**ADG**

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (abamectin (combination of avermectin B1a and avermectin B1b) (ISO))
Class	:	9
Packing group	:	III
Labels	:	9
Hazchem Code	:	•3Z
Environmentally hazardous	:	yes

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Therapeutic Goods (Poisons Standard) Instrument	:	No poison schedule number allocated (Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical)
Prohibition/Licensing Requirements	:	There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

The components of this product are reported in the following inventories:

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

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SECTION 16: ANY OTHER RELEVANT INFORMATION

Further information

Revision Date : 14.04.2025
Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

Full text of other abbreviations

AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

AU OEL / TWA : Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for

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safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

AU / EN