according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 28.09.2024 10853352-00006 Date of first issue: 15.09.2022 4.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Abamectin (0.6%) Liquid Formulation

Other means of identification : COOPERS MAVERICK POUR ON FOR SHEEP (61710)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-

stance/Mixture

: Veterinary product

Recommended restrictions

on use

Not applicable

1.3 Details of the supplier of the safety data sheet

MSD Company

Kilsheelan

Clonmel Tipperary, IE

Telephone 353-51-601000

E-mail address of person

responsible for the SDS

: EHSDATASTEWARD@msd.com

1.4 Emergency telephone number

+1-908-423-6000

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H332: Harmful if inhaled.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Specific target organ toxicity - repeated H373: May cause damage to organs through pro-

exposure, Category 2 longed or repeated exposure.

Short-term (acute) aquatic hazard, Cate-H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Cat-H410: Very toxic to aquatic life with long lasting

effects.

egory 1

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

Hazard pictograms







Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or

repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling.P273 Avoid release to the environment.P280 Wear eye protection/ face protection.

Response:

P314 Get medical advice/ attention if you feel unwell. P337 + P313 If eye irritation persists: Get medical advice/

attention.

P391 Collect spillage.

Hazardous components which must be listed on the label:

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

EUH208 Contains 1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-

bis(hydroxymethyl)urea. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
	Index-No.		,

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

	Registration number		
Polyalkylene oxide derivative of a synthetic alcohol	103818-93-5	Eye Irrit. 2; H319	>= 30 - < 50
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	71751-41-2 606-143-00-0	Acute Tox. 2; H300 Acute Tox. 1; H330 Acute Tox. 3; H311 Repr. 2; H361fd STOT RE 1; H372 (Central nervous system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10.000 M-Factor (Chronic aquatic toxicity): 10.000 specific concentration limit STOT RE 1; H372 >= 5 % STOT RE 2; H373 0,5 - < 5 %	>= 0,5 - < 1
1-[1,3-Bis(hydroxymethyl)-2,5- dioxoimidazolidin-4-yl]-1,3- bis(hydroxymethyl)urea	78491-02-8 278-928-2	Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>= 0,1 - < 0,25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

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).

If inhaled : If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 28.09.2024 10853352-00006 Date of first issue: 15.09.2022 4.0

If breathing is difficult, give oxygen.

Get medical attention.

In case of skin contact In case of contact, immediately flush skin with soap and plenty

of water.

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention.

If swallowed If swallowed, DO NOT induce vomiting.

Get medical attention.

Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks Causes serious eye irritation.

Harmful if inhaled.

May cause damage to organs through prolonged or repeated

exposure.

May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Exposure to combustion products may be a hazard to health.

Hazardous combustion prod- : Carbon oxides

ucts

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

5.3 Advice for firefighters

Special protective equipment :

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions : Avoid relea

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.

6.3 Methods and material for containment and cleaning up

Methods for 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 absor-

bent.

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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust

ventilation.

Advice on safe handling : Do not get on skin or clothing.

Do not breathe mist or vapours.

Do not swallow. Do not get in eyes.

Wash skin thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep container tightly closed.

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. Contaminated work clothing should not be allowed out of the workplace.

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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep in properly labelled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with

the particular national regulations.

Advice on common storage : Do not store with the following product types:

Strong oxidizing agents

Gases

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propylene glycol	57-55-6	TWA	25 ppm 79 mg/m3	FOR-2011- 12-06-1358
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	71751-41-2	TWA	15 μg/m3 (OEB 3)	Internal
		Wipe limit	150 μg/100 cm ²	Internal

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Propylene glycol	Workers	Inhalation	Long-term local ef- fects	10 mg/m3
	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	10 mg/m3
	Consumers	Inhalation	Long-term systemic effects	50 mg/m3
1-[1,3- Bis(hydroxymethyl)- 2,5-dioxoimidazolidin- 4-yl]-1,3- bis(hydroxymethyl)ure a	Workers	Inhalation	Long-term systemic effects	20,5 mg/m3
	Workers	Inhalation	Acute systemic effects	92 mg/m3
	Workers	Dermal	Long-term systemic effects	11,7 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	5 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Propylene glycol	Fresh water	260 mg/l
	Freshwater - intermittent	183 mg/l
	Marine water	26 mg/l
	Sewage treatment plant	20000 mg/l
	Fresh water sediment	572 mg/kg dry weight (d.w.)
	Marine sediment	57,2 mg/kg dry weight (d.w.)
	Soil	50 mg/kg dry weight (d.w.)
1-[1,3-Bis(hydroxymethyl)-2,5- dioxoimidazolidin-4-yl]-1,3- bis(hydroxymethyl)urea	Fresh water	5,78 μg/l
	Freshwater - intermittent	57,8 μg/l
	Marine water	0,58 μg/l
	Sewage treatment plant	20 mg/l
	Fresh water sediment	0,0888 mg/kg dry
		weight (d.w.)
	Marine sediment	0,0089 mg/kg dry
		weight (d.w.)
	Soil	0,0144 mg/kg dry
		weight (d.w.)

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

8.2 Exposure controls

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.

Personal protective equipment

Eye/face 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.

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

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.

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Equipment should conform to NS EN 143

Filter type : Particulates type (P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : clear

dark blue

Odour : No data available

Odour Threshold : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling :

range

No data available

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : No data available

Viscosity

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

Not applicable

Vapour pressure : No data available

Relative density : No data available

Density : No data available

Relative vapour density : No data available

Particle characteristics

Particle size : Not applicable

9.2 Other information

Explosives : Not explosive

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

Evaporation rate : No data available

Molecular weight : No data available

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of : Inhalation

exposure Skin contact Ingestion

Eye contact

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 3,83 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg

Method: Calculation method

Components:

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

Acute oral toxicity : LD50 (Rat): 24 mg/kg

LD50 (Mouse): 10 mg/kg

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

LDLo (Monkey): 24 mg/kg

Symptoms: Dilatation of the pupil

Acute inhalation toxicity : LC50 (Rat): 0,023 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 330 mg/kg

LD50 (Rabbit): 2.000 mg/kg

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OPPTS 870.1100

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Method: OPPTS 870.1200

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Not classified based on available information.

Components:

Polyalkylene oxide derivative of a synthetic alcohol:

Species : reconstructed human epidermis (RhE)

Method : OECD Test Guideline 439

Result : No skin irritation

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

Species : Rabbit

Result : No skin irritation

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Species : Rabbit

Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Polyalkylene oxide derivative of a synthetic alcohol:

Species : Bovine cornea

Method : OECD Test Guideline 437

Result : Irritation to eyes, reversing within 21 days

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

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

Species : Rabbit

Result : Mild eye irritation

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Species : Rabbit

Result : Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

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

Test Type : Maximisation Test Exposure routes : Skin contact

Result : Not a skin sensitizer.

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Test Type : Human repeat insult patch test (HRIPT)

Exposure routes : Skin contact Result : positive

Assessment : Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Not classified based on available information.

Components:

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

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

Result: negative

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

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

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: positive

Test Type: Chromosome aberration test in vitro

Result: negative

Test Type: DNA damage and repair, unscheduled DNA syn-

thesis in mammalian cells (in vitro)

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Ingestion

Result: negative

Test Type: Unscheduled DNA synthesis (UDS) test with

mammalian liver cells in vivo

Species: Rat

Application Route: Ingestion

Method: OECD Test Guideline 486

Result: negative

Carcinogenicity

Not classified based on available information.

Components:

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

Species: RatApplication Route: OralExposure time: 105 weeksResult: negative

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

Reproductive toxicity

Not classified based on available information.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

Components:

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

Effects on foetal develop-

ment

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 - As-

sessment

Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of

adverse effects on development, based on animal experi-

ments.

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: Ingestion

Result: negative

Test Type: Embryo-foetal development

Species: Rat

Application Route: Skin contact

Result: negative

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

П

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:

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

: Ingestion Exposure routes

Target Organs Central nervous system

: Causes damage to organs through prolonged or repeated Assessment

Repeated dose toxicity

Components:

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

Species NOAEL 1,5 mg/kg : Oral Application Route Exposure time : 24 Months

Target Organs : Central nervous system

Symptoms : Tremors, ataxia

NOAEL
Application Route
Exposure time
Target Organs : Mouse : 4,0 mg/kg : Oral : 24 Months

: Central nervous system

Symptoms : Tremors, ataxia

: Dog Species NOAEL : 0,25 mg/kg LOAEL : 0,5 mg/kg : Oral Application Route 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 : 14 Weeks Exposure time

Target Organs : Central nervous system

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Species Rat NOAEL 200 mg/kg

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 28.09.2024 10853352-00006 Date of first issue: 15.09.2022 4.0

Application Route Ingestion Exposure time 92 Days

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment The substance/mixture does not contain components consid-

> ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Experience with human exposure

Components:

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

Symptoms: May cause, Tremors, Diarrhoea, central nervous Ingestion

system effects, Salivation, tearing

SECTION 12: Ecological information

12.1 Toxicity

Components:

Polyalkylene oxide derivative of a synthetic alcohol:

Toxicity to fish : LC50 : > 1 - 10 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

aguatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 3,2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

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

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 3,2 µg/l

Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 9,6 µg/l

Exposure time: 96 h

LC50 (Ictalurus punctatus (channel catfish)): 24 µg/l

Exposure time: 96 h

LC50 (Cyprinus carpio (Carp)): 42 μg/l

Exposure time: 96 h

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

LC50 (Cyprinodon variegatus (sheepshead minnow)): 15 µg/l

Exposure time: 96 h

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/

Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

10.000

Toxicity to microorganisms : EC50 : > 1.000 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition

Toxicity to fish (Chronic tox-

icity)

NOEC: 0,52 μg/l

Exposure time: 32 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,03 µg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

NOEC: 0,0035 µg/l Exposure time: 28 d

Species: Mysidopsis bahia (opossum shrimp)

M-Factor (Chronic aquatic

toxicity)

: 10.000

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 67 mg/l

Exposure time: 96 h

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 58 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 5,78 mg/l

Exposure time: 72 h

Method: Regulation (EC) No. 440/2008, Annex, C.3

NOEC (Pseudokirchneriella subcapitata (green algae)): 1,6

mg/l

Exposure time: 72 h

Method: Regulation (EC) No. 440/2008, Annex, C.3

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

Toxicity to microorganisms : EC50 (activated sludge): 567 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

12.2 Persistence and degradability

Components:

Polyalkylene oxide derivative of a synthetic alcohol:

Biodegradability : Result: Readily biodegradable.

Remarks: Based on data from similar materials

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

Stability in water : Hydrolysis: 50 %(< 12 h)

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 24 % Exposure time: 28 d

Method: Directive 67/548/EEC Annex V, C.4.C.

12.3 Bioaccumulative potential

Components:

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

Bioaccumulation : Bioconcentration factor (BCF): 52

Partition coefficient: n- : log Pow: 4

octanol/water

1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea:

Partition coefficient: n- : log Pow: < 0,9

octanol/water Method: OECD Test Guideline 117

12.4 Mobility in soil

Components:

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

Distribution among environ- :

mental compartments

: log Koc: > 3,6

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

According to the European Waste Catalogue, Waste Codes

are not product specific, but application specific.

Waste codes should be assigned by the user, preferably in

discussion with the waste disposal authorities.

Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3082
ADR : UN 3082
RID : UN 3082
IMDG : UN 3082
IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

NOS

(abamectin (combination of avermectin B1a and avermectin

B1b) (ISO))

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(abamectin (combination of avermectin B1a and avermectin

B1b) (ISO))

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(abamectin (combination of avermectin B1a and avermectin

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 4.0 28.09.2024 10853352-00006 Date of first issue: 15.09.2022

B1b) (ISO))

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(abamectin (combination of avermectin B1a and avermectin

B1b) (ISO))

IATA : Environmentally hazardous substance, liquid, n.o.s.

(abamectin (combination of avermectin B1a and avermectin

B1b) (ISO))

14.3 Transport hazard class(es)

Class Subsidiary risks

 ADN
 : 9

 ADR
 : 9

 RID
 : 9

 IMDG
 : 9

 IATA
 : 9

14.4 Packing group

ADN

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

ADR

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen: 964

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

1

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 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.

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) Conditions of restriction for the following entries should be considered: Number on list 3

Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Number on list 77: 1-[1,3-Bis(hydroxymethyl)-2,5-dioxoimidazolidin-4-yl]-1,3-bis(hydroxymethyl)urea

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is appli-

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

cable to the placing on the market or

not.

Not applicable

Not applicable

Not applicable

Not applicable

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

REACH - List of substances subject to authorisation :

(Annex XIV)

Regulation (EC) on substances that deplete the ozone : Not applicable

layer

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of

major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2

E1 ENVIRONMENTAL 100 t 200 t

HAZARDS

Other regulations:

Note the regulation on organization, leadership and participation, chapter 12 on the work of children and young people.

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

AICS : not determined

DSL : not determined

IECSC : not determined

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : Items where changes have been made to the previous version

are highlighted in the body of this document by two vertical

lines.

Full text of H-Statements

H300 : Fatal if swallowed.

H311 : Toxic in contact with skin.

H317 : May cause an allergic skin reaction. H319 : Causes serious eye irritation.

H330 : Fatal if inhaled.

H361fd : Suspected of damaging fertility. Suspected of damaging the

unborn child.

H372 : Causes damage to organs through prolonged or repeated

exposure if swallowed.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 4.0
 28.09.2024
 10853352-00006
 Date of first issue: 15.09.2022

H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Irrit. : Eye irritation

Repr. : Reproductive toxicity Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure

FOR-2011-12-06-1358 : Norway. Occupational Exposure limits

FOR-2011-12-06-1358 / : Long term exposure limit

TWA

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

Further information

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 Agen-

cy, http://echa.europa.eu/

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



Abamectin (0.6%) Liquid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2024
4.0	28.09.2024	10853352-00006	Date of first issue: 15.09.2022

Classification of the m	ixture:	Classification procedure:
Acute Tox. 4	H332	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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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 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.

NO / EN