

SAFETY DATA SHEET

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



ASTERIA ULTRA 1.8 EC

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	09.08.2024	50002985	Date of first issue: 09.08.2024

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

1.1 Product identifier

Product name ASTERIA ULTRA 1.8 EC

Other means of identification

Product code 50002985

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

Use of the Substance/Mixture : Can be used as insecticide only.

Recommended restrictions on use : Use as recommended by the label.

1.3 Manufacturer or supplier's details

Supplier Address FMC Chemicals Hellas MEPE
Syngrou Avenue 348
17674 Kallithea
Greece

Telephone: +30 211 1982768
Telefax: +30 211 1138614
E-mail address: SDS-Info@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:
Greece: 30-2111768478 (CHEMTREC)

Medical emergency:
Greece: 30 210 77 93 777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.

Acute toxicity, Category 4 H332: Harmful if inhaled.

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Acute toxicity, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements :

- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements :

- P102 Keep out of reach of children.
- P405 Store locked up.
- P260 Do not breathe dust or mist.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazardous components which must be listed on the label:

cyclohexanol
Abamectin

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Additional Labelling

For special phrases (SP) and safety intervals, consult the label.

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. Index-No. Registration number	Classification	Concentration (% w/w)
cyclohexanol	108-93-0 203-630-6 603-009-00-3	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 STOT SE 3; H335 (Respiratory system)	30 - 40
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	1 - 5
Abamectin	71751-41-2 606-143-00-0	Acute Tox. 2; H300 Acute Tox. 1; H330 Repr. 2; H361d STOT RE 1; H372 (Nervous system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410	1,8

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		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 %	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Call a physician or poison control centre immediately.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
Avoid inhalation, ingestion and contact with skin and eyes.
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- If inhaled : If breathed in, move person into fresh air.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
- If swallowed : Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Harmful if swallowed.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Dry powder
Carbon dioxide (CO₂)

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Hazardous decomposition products due to incomplete combustion
Carbon dioxide (CO₂)
Carbon monoxide
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Do not touch or walk through the spilled material.
If it can be safely done, stop the leak.
Use personal protective equipment.
Never return spills in original containers for re-use.
Only qualified personnel equipped with suitable protective equipment may intervene.
Mark the contaminated area with signs and prevent access to unauthorized personnel.
For disposal considerations see section 13.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Collect as much of the spill as possible with a suitable absorbent material.
Pick up and transfer to properly labelled containers.
Clean contaminated surface thoroughly.

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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

- Advice on safe handling : Avoid contact with skin and eyes.
- Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Hygiene measures : Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Prevent unauthorized access. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

- Specific use(s) : Registered pesticide to be used in accordance with a label approved by country-specific regulatory authorities.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
cyclohexanol	108-93-0	TWA	50 ppm	GR OEL

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			200 mg/m ³	
	Further information: The notation 'skin' (D), pointing out certain chemical factors of the table of paragraph of 1 article 3, implies the likely contribution to of these chemical factors to the quantity of exposure to workers which are absorbed through the skin at the direct contact with these.			
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m ³	GR OEL

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

Substance name	End Use	Exposure routes	Potential health effects	Value
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	3,5 mg/m ³
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,86 mg/m ³
	Consumers	Dermal	Long-term systemic effects	0,250 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
2,6-di-tert-butyl-p-cresol	Fresh water	199 ng/l
	Marine water	19,9 ng/l
	Fresh water sediment	0,0996 mg/kg dry weight (d.w.)
	Marine sediment	0,00996 mg/kg dry weight (d.w.)
	Soil	0,04769 mg/kg dry weight (d.w.)
	Intermittent use (freshwater)	1,99 µg/l
	Sewage treatment plant	170 µg/l
	Oral	8,33 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Safety glasses with side-shields
Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Skin and body protection : Impervious clothing

Respiratory protection : No personal respiratory protective equipment normally required.

Protective measures : Plan first aid action before beginning work with this product.
Wear suitable protective equipment.
Ensure that eye flushing systems and safety showers are

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located close to the working place.
Always have on hand a first-aid kit, together with proper instructions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Form	:	No data available
Colour	:	yellow
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
	:	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	:	309 °C Method: Regulation (EC) No. 440/2008, Annex, A.15
Decomposition temperature	:	No data available
pH	:	5,95 (25 °C) Method: CIPAC MT 75.3 4,05 (25 °C) Concentration: 1 % Method: CIPAC MT 75.3
Viscosity		
Viscosity, dynamic	:	0,12 Pas (20 °C) Method: OECD Test Guideline 114
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	No data available
Bulk density	:	No data available
Relative vapour density	:	No data available

9.2 Other information

Explosives	:	Method: Directive 67/548/EEC, Annex V, A.14 Not explosive
Oxidizing properties	:	Method: Regulation (EC) No. 440/2008, Annex, A.21 The substance or mixture is not classified as oxidizing.

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SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

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

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

Product:

Acute oral toxicity : LD50 (Rat): 671,4 mg/kg
Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat): 1,4125 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Components:

2,6-di-tert-butyl-p-cresol:

Acute oral toxicity : LD50 (Rat, male and female): > 6.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Mouse, male): 0,546 mg/l
Exposure time: 30 min
Test atmosphere: vapour
Remarks: no mortality

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Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Remarks: no mortality

Abamectin:

Acute oral toxicity : LD50 (Rat): 340 mg/kg
Method: OECD Test Guideline 425
Symptoms: Fatality

LD50 (Rat): 300 - 2.000 mg/kg
Method: OECD Test Guideline 423
Symptoms: ataxia, apathy, Tremors, Fatality

Acute inhalation toxicity : LC50 (Rat, male): 0,052 - 0,54 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Components:

2,6-di-tert-butyl-p-cresol:

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

Abamectin:

Species : Rabbit
Assessment : Not classified as irritant
Method : OECD Test Guideline 404
Result : slight or no skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : Severe eye irritation

Components:

2,6-di-tert-butyl-p-cresol:

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

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Abamectin:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 405
Result	:	Slight or no eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Product:

Remarks	:	Not classified
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Components:

2,6-di-tert-butyl-p-cresol:

Test Type	:	Patch test
Species	:	Humans
Result	:	Does not cause skin sensitisation.

Abamectin:

Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Components:

2,6-di-tert-butyl-p-cresol:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Result: negative Test Type: In vitro mammalian cell gene mutation test Result: negative Test Type: Chromosome aberration test in vitro Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse (male and female) Application Route: Intraperitoneal injection Result: negative Test Type: chromosome aberration assay

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Species: Rat (male)
Application Route: Oral
Result: negative

Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Abamectin:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: mice
Result: negative
GLP: yes

Germ cell mutagenicity- Assessment : No genotoxic potential

Carcinogenicity

Based on available data, the classification criteria are not met.

Components:

2,6-di-tert-butyl-p-cresol:

Species : Rat, male
Application Route : Oral
Exposure time : 22 months
Dose : 0, 25, 100, 250 mg/kg bw/day
100 mg/kg bw/day
Result : negative

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

Abamectin:

Method : OECD Test Guideline 451
Remarks : Not classified

Method : OECD Test Guideline 453
Remarks : Not classified

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

Reproductive toxicity

Based on available data, the classification criteria are not met.

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Components:

2,6-di-tert-butyl-p-cresol:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0, 25, 100, 500mg/kg/bw/day
General Toxicity - Parent: NOAEL: 500 mg/kg bw/day
General Toxicity F1: LOAEL: 25 mg/kg bw/day
Result: negative

Effects on foetal development : Test Type: Two-generation study
Species: Rat
Application Route: Oral
Dose: 25, 100, 500mg/kg/bw/day
General Toxicity Maternal: LOAEL: 500 mg/kg bw/day
Developmental Toxicity: LOAEL: 500 mg/kg bw/day
Result: negative

Test Type: Developmental Toxicity Screening Test
Species: Mouse
Application Route: Oral
General Toxicity Maternal: LOAEL: 800 mg/kg bw/day
Developmental Toxicity: LOAEL: 800 mg/kg bw/day
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Abamectin:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:

2,6-di-tert-butyl-p-cresol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Abamectin:

Target Organs : Nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

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Repeated dose toxicity

Components:

2,6-di-tert-butyl-p-cresol:

Species	: Pig, male and female
NOAEL	: ≥ 61 mg/kg bw/day
Application Route	: Oral
Exposure time	: 42 d

Species	: Mouse, female
Application Route	: Dermal
Exposure time	: 4 weeks
Dose	: 0, 208, 415, 830, 1245 mg/kg

Species	: Mouse, male
Application Route	: Dermal
Exposure time	: 4 weeks
Dose	: 0, 145, 289, 578 or 867 mg/kg

Abamectin:

Species	: Dog
LOEL	: 0,5 mg/kg
Application Route	: Oral
Exposure time	: 18 weeks
Method	: OECD Test Guideline 409

Species	: Rat
LOAEC	: 0,0027 mg/l
Application Route	: Inhalation
Exposure time	: 30 d

Species	: Rat, female
NOAEL	: 3,0 mg/kg
LOAEL	: 6,7 mg/kg
Application Route	: Oral
Exposure time	: 28 d
Dose	: 0, 3, 6.7, 8.9, 11.5 mg/kg bw/day
Method	: OECD Test Guideline 407
GLP	: yes
Symptoms	: Tremors, Fatality

Species	: Rat, female
NOAEL	: 3,8 mg/kg
LOAEL	: 9,3 mg/kg
Application Route	: Oral
Exposure time	: 90 d
Dose	: 0, 1.8, 3.8, 9.3, 9.6 mg/kg bw/day
Method	: OECD Test Guideline 408
GLP	: yes

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Aspiration toxicity

Based on available data, the classification criteria are not met.

Components:

Abamectin:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : 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.

Further information

Components:

Abamectin:

Remarks : Exposure causes symptoms of nervous system depression, such as pupil dilation, vomiting, excitation, incoordination, tremors, lethargy, coma. High doses cause death by respiratory failure.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 13,2 mg/l
Method: OECD Test Guideline 203

NOEC (Brachydanio rerio (zebrafish)): 3,2 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0214 mg/l
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 0,0063 mg/l
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 13,2 mg/l
Method: OECD Test Guideline 201

NOEC (Selenastrum capricornutum (green algae)): < 1 mg/l
Method: OECD Test Guideline 201

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Toxicity to terrestrial organisms : LD50: 0.148
Species: Apis mellifera (bees)

Components:

2,6-di-tert-butyl-p-cresol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0,57 mg/l
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,48 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 0,4 mg/l
Exposure time: 72 h
Method: EU Method C3

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (activated sludge): > 10.000 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition

Toxicity to fish (Chronic toxicity) : LOEC: 0,14 mg/l
Exposure time: 30 d
Species: Oryzias latipes (Japanese medaka)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,069 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to soil dwelling organisms : NOEC: >= 100 mg/kg
Exposure time: 28 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

EC50: 87,9 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

NOEC: 25 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

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Toxicity to terrestrial organisms : NOEC: $\geq 268,1$ mg/kg
Exposure time: 35 d
Species: Birds

Abamectin:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,027 - 0,044 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0008 - 0,0015 mg/l
End point: Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

EC50 (Daphnia magna (Water flea)): 0,0002 - 0,00028 mg/l
End point: Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

EC50 (Daphnia pulex (Water flea)): 0,000159 mg/l
End point: Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

NOEC (Daphnia pulex (Water flea)): 0,000089 mg/l
End point: Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Scenedesmus capricornutum (fresh water algae)): 56,68 - 85,41 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

M-Factor (Acute aquatic toxicity) : 10.000

Toxicity to fish (Chronic toxicity) : NOEC: 0,0044 mg/l
Exposure time: 28 d
Species: Pimephales promelas (fathead minnow)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic) : NOEC: 0,00003 mg/l
End point: reproduction

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ic toxicity)	Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
M-Factor (Chronic aquatic toxicity)	: 10.000
Toxicity to soil dwelling organisms	: LC50: 14,24 - 18,37 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207 Method: OECD Test Guideline 216 Remarks: No significant adverse effect on nitrogen mineralization. Method: OECD Test Guideline 217 Remarks: No significant adverse effect on carbon mineralization.
Toxicity to terrestrial organisms	: LD50: 0,00071 - 0,00099 µg/bee Exposure time: 48 h End point: Acute contact toxicity Species: Apis mellifera (bees) Method: OECD Test Guideline 214 LD50: > 5000 ppm Species: Coturnix japonica (Japanese quail) Remarks: Dietary

Ecotoxicology Assessment

Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

2,6-di-tert-butyl-p-cresol:

Biodegradability	: Inoculum: activated sludge Result: Not readily biodegradable.
------------------	--

Abamectin:

Biodegradability	: Result: Not readily biodegradable. Remarks: It undergoes degradation in the environment and in waste water treatment plants.
------------------	---

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12.3 Bioaccumulative potential

Components:

2,6-di-tert-butyl-p-cresol:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 1.277
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 5,1

Abamectin:

Bioaccumulation : Species: Danio rerio (zebra fish)
Bioconcentration factor (BCF): 54
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 5,5

12.4 Mobility in soil

Components:

Abamectin:

Distribution among environmental compartments : Remarks: Mobile in soils

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.

12.6 Endocrine disrupting properties

Product:

Assessment : 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.

12.7 Other adverse effects

No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- | | |
|------------------------|---|
| Product | : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company. |
| Contaminated packaging | : Empty remaining contents.
Do not re-use empty containers.
Packaging that is not properly emptied must be disposed of as the unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal. |

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, N.O.S.
(Abamectin, 2,6-Di-tert-butyl-p-cresol)
(Abamectin) |
| ADR | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Abamectin, 2,6-Di-tert-butyl-p-cresol)
(Abamectin) |
| RID | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Abamectin, 2,6-Di-tert-butyl-p-cresol)
(Abamectin) |
| IMDG | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Abamectin, 2,6-Di-tert-butyl-p-cresol)
() |
| IATA | : Environmentally hazardous substance, liquid, n.o.s.
(Abamectin, 2,6-Di-tert-butyl-p-cresol)
(Abamectin) |

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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 aircraft)	: 964
Packing instruction (LQ)	: Y964
Packing group	: III
Labels	: Miscellaneous
IATA (Passenger)	
Packing instruction (passenger aircraft)	: 964
Packing instruction (LQ)	: Y964
Packing group	: III
Labels	: Miscellaneous

14.5 Environmental hazards

ADN	
Environmentally hazardous	: yes
ADR	

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Environmentally hazardous : yes

RID

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

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 75, 3 If you intend to use this product as tattoo ink, please contact your vendor.
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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
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Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
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Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
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Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
--	---	----------------

REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	H2	ACUTE TOXIC
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E1	ENVIRONMENTAL HAZARDS
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Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL. Abamectin
ENCS	: Not in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Full text of H-Statements

H300	: Fatal if swallowed.
H302	: Harmful if swallowed.
H315	: Causes skin irritation.
H330	: Fatal if inhaled.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H361d	: Suspected of damaging the unborn child.
H372	: Causes damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

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Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Repr.	: Reproductive toxicity
Skin Irrit.	: Skin irritation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
GR OEL	: Greece. Exposure limit values
GR OEL / TWA	: Long term exposure limit

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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Acute Tox. 4	H302
Acute Tox. 4	H332
Acute Tox. 2	H319
STOT RE 2	H373
STOT SE 3	H335

Classification procedure:

Based on product data or assessment
Calculation method
Based on product data or assessment
Calculation method
Calculation method

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Aquatic Acute 1	H400	Calculation method	
Aquatic Chronic 1	H410	Based on product data or assessment	

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