

SAFETY DATA SHEET

According to Commission Regulation (EU) 2020/878 of amending
Regulation (EC) No 1907/2006



ZORO® 36 EC

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	15.12.2022	50000780	Date of first issue: 15.12.2022

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

1.1 Product identifier

Product name ZORO® 36 EC

Other means of identification

Product code 50000780

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

Use of the Sub- stance/Mixture	Insecticide
Recommended restrictions on use	Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

Supplier Address

FMC France
11 bis Quai Perrache
69002 LYON
France

Telephone: 04 37 23 65 70

Telefax: 04 78 71 08 46

E-mail address: SDS-Info@fmc.com, fmc.france@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:
Company emergency number - BIG (24 hours):
+32 14 58 45 45

Medical emergency:
Poison centers in France:
Paris: 01.40.05.48.48
Lyon: 04.72.11.69.11
Marseille: 04.91.75.25.25
Lille: 0800 59 59 59
ORFILA: +33 (0) 1 45 42 59 59 (poison control center)
Company: 04.37.23.65.70, accessible from 8:30 am to 6:00
pm, Monday to Friday

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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.
Reproductive toxicity, Category 1B	H360D: May damage the unborn child.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
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 : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P260 Do not breathe mist or vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage.

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Hazardous components which must be listed on the label:

hexan-1-ol
1-methyl-2-pyrrolidone
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)

Additional Labelling

Restricted to professional users.

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)
hexan-1-ol	111-27-3 203-852-3 603-059-00-6	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 4; H312 Eye Irrit. 2; H319 Acute toxicity estimate Acute dermal toxicity: 1.500 mg/kg	>= 20 - < 30
1-methyl-2-pyrrolidone	872-50-4 212-828-1 606-021-00-7	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 1B; H360D STOT SE 3; H335 (Respiratory system) specific concentration limit STOT SE 3; H335 >= 10 %	>= 20 - < 30

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abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	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 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 % Acute toxicity estimate Acute oral toxicity: 5,0 mg/kg	>= 3 - < 5
cyclohexane	110-82-7 203-806-2 601-017-00-1	Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 (Central nervous system) Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1	>= 0,25 - < 1
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	>= 0,25 - < 1

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		aquatic toxicity): 1	
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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 | : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended. |
| If inhaled | : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician. |
| In case of skin contact | : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes. |
| In case of eye contact | : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist. |
| If swallowed | : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|-------|--|
| Risks | : Harmful if swallowed or if inhaled.
May cause respiratory irritation.
May damage the unborn child.
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. |
|-----------|--------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | |
|------------------------------|---|
| Suitable extinguishing media | : Dry chemical, CO2, water spray or regular foam. |
| Unsuitable extinguishing | : Do not spread spilled material with high-pressure water |

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media

streams.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Hazardous combustion products
Carbon oxides

5.3 Advice for firefighters

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

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Use a water spray to cool fully closed containers.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Evacuate personnel to safe areas.
Use personal protective equipment.
If it can be safely done, stop the leak.
Do not touch or walk through the spilled material.
Never return spills in original containers for re-use.
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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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Keep in suitable, closed containers for disposal.

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 formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.

Normal measures for preventive fire protection.
- Hygiene measures : When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

General industrial hygiene practice. Avoid contact with skin, eyes and clothing. Do not inhale aerosol.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : No smoking. 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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
1-methyl-2-pyrrolidone	872-50-4	TWA	10 ppm 40 mg/m ³	2009/161/EU
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	20 ppm 80 mg/m ³	2009/161/EU

		VLCT (VLE)	20 ppm 80 mg/m ³	FR VLE
Further information	Reprotoxic category 1B - Probably reprotoxic to humans, Risk of penetration through skin, Regulatory indicative exposure limits			
		VME	10 ppm 40 mg/m ³	FR VLE

cyclohexane	110-82-7	TWA	200 ppm 700 mg/m ³	2006/15/EC
Further information	Indicative			
		VME	200 ppm 700 mg/m ³	FR VLE
Further information	Regulatory binding exposure limits			
		VLCT (VLE)	375 ppm 1.300 mg/m ³	FR VLE
Further information	The STEL value is not regulatory and originates from a circular of the ministry of labour, Indicative exposure limits			
2,6-di-tert-butyl-p-cresol	128-37-0	VME	10 mg/m ³	FR VLE
Further information	Indicative exposure limits			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
hexan-1-ol	Workers	Inhalation	Long-term systemic effects	99 mg/m ³
	Workers	Dermal	Long-term systemic effects	28 mg/kg bw/day
	Workers	Dermal	Long-term local effects	0,19 mg/m ³
	Consumers	Inhalation	Long-term systemic effects	24,5 mg/m ³
	Consumers	Dermal	Long-term systemic effects	14 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	14 mg/kg bw/day
1-methyl-2-pyrrolidone	Workers	Inhalation	Long-term systemic effects	14,4 mg/m ³

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	Workers	Inhalation	Long-term local effects	40 mg/m3
	Workers	Dermal	Long-term systemic effects	4,8 mg/m3
	Consumers	Inhalation	Long-term systemic effects	3,6 mg/m3
	Consumers	Inhalation	Long-term local effects	4,5 mg/m3
	Consumers	Dermal	Long-term systemic effects	2,4 mg/kg
	Consumers	Oral	Long-term systemic effects	0,85 mg/kg
Castor oil. hydrogenated, ethoxylated	Workers	Dermal	Long-term systemic effects	16,6 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	8,3 mg/kg bw/day
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)				0,0025 mg/kg
cyclohexane	Workers	Inhalation	Long-term systemic effects	700 mg/m3
	Workers	Inhalation	Acute systemic effects	1400 mg/m3
	Workers	Inhalation	Long-term local effects	700 mg/m3
	Workers	Inhalation	Acute local effects	1400 mg/m3
	Workers	Dermal	Long-term systemic effects	2016 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	206 mg/m3
	Consumers	Inhalation	Acute systemic effects	412 mg/m3
	Consumers	Inhalation	Long-term local effects	206 mg/m3
	Consumers	Inhalation	Acute local effects	412 mg/m3
	Consumers	Dermal	Long-term systemic effects	1186 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	59,4 mg/kg bw/day
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	3,5 mg/m3
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,86 mg/m3
	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
hexan-1-ol	Fresh water	0,51 mg/l

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	Intermittent use/release	4 mg/l
	Marine water	0,051 mg/l
	Sewage treatment plant	62 mg/l
	Fresh water sediment	2,8 mg/kg
	Marine sediment	0,280 mg/kg
	Soil	0,25 mg/kg
1-methyl-2-pyrrolidone	Fresh water	0,25 mg/l
	Intermittent use/release	5 mg/l
	Marine water	0,025 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	1,09 mg/kg
	Marine sediment	0,00109 mg/kg
Castor oil. hydrogenated, ethoxylated	Fresh water	0,001 mg/l
	Marine water	100 ng/l
	Fresh water sediment	100 mg/kg dry weight (d.w.)
	Marine sediment	10 mg/kg dry weight (d.w.)
	Soil	20 mg/kg dry weight (d.w.)
	Intermittent use (freshwater)	0,01 mg/l
Sorbitan monolaurate, ethoxylated	Fresh water	0,2 mg/l
	Marine water	0,02 mg/l
	Fresh water sediment	1,141 mg/kg dry weight (d.w.)
	Marine sediment	1000 mg/kg dry weight (d.w.)
	Intermittent use (freshwater)	0,239 mg/l
abamectin (combination of avermectin B1a and avermectin B1b) (ISO)	Fresh water	0,35 ng/l
cyclohexane	Fresh water	0,207 mg/l
	Marine water	0,207 mg/l
	Intermittent use (freshwater)	0,207 mg/l
	Sewage treatment plant	3,24 mg/l
	Fresh water sediment	16,68 mg/kg dry weight (d.w.)
	Marine sediment	16,68 mg/kg dry weight (d.w.)
	Soil	3,38 mg/kg dry weight (d.w.)
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

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	Sewage treatment plant	170 µg/l
	Oral	8,33 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles
Hand protection	:	
Material	:	Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and con- centration of the dangerous substance at the work place.
	:	Protective suit
Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Protective measures	:	Plan first aid action before beginning work with this product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	yellow
Odour	:	amine-like
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	73 °C Method: Pensky-Martens closed cup
Auto-ignition temperature	:	No data available

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Decomposition temperature	: 60 °C
pH	: 7,12 (20 °C)
Viscosity	
Viscosity, dynamic	: 23,5 mPa.s (20 °C)
Viscosity, kinematic	: No data available
Solubility(ies)	
Water solubility	: dispersible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Vapour pressure	: No data available
Density	: 966 g/l (20 °C)
Relative vapour density	: No data available
Particle characteristics	
Particle size	: No data available
Particle Size Distribution	: No data available

9.2 Other information

Explosives	: Not explosive
Oxidizing properties	: Non-oxidizing
Self-ignition	: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	: No decomposition if stored and applied as directed.
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Vapours may form explosive mixture with air.

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10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

Avoid extreme temperatures
Avoid formation of aerosol.

10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed or if inhaled.

Product:

Acute oral toxicity	: LD50 (Rat): 400 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): > 4,96 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The component/mixture is moderately toxic after short term inhalation. Remarks: Evident toxicity
Acute dermal toxicity	: LD50 (Rat): > 4.000 mg/kg Method: OECD Test Guideline 402 Assessment: The component/mixture is minimally toxic after single contact with skin.

Components:

hexan-1-ol:

Acute oral toxicity	: LD50 (Rat, male and female): 3.210 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC0 (Rat, male and female): > 21 mg/l Exposure time: 1 h Test atmosphere: dust/mist Symptoms: ataxia Remarks: no mortality
Acute dermal toxicity	: LD50 (Rabbit, male and female): 1.500 - 2.000 mg/kg Method: OECD Test Guideline 402

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Acute toxicity estimate: 1.500 mg/kg
Method: Calculation method

1-methyl-2-pyrrolidone:

Acute oral toxicity : LD50 (Rat): 4.150 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat): > 5,1 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

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

Acute oral toxicity : Acute toxicity estimate: 5,0 mg/kg
Method: Converted acute toxicity point estimate

LD50 (Rat): 340 mg/kg
Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat, female): 0,074 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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

cyclohexane:

Acute oral toxicity : LD0 (Rat, male and female): > 5.000 mg/kg
Remarks: no mortality

Acute inhalation toxicity : LC0 (Rat, male and female): > 19,07 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: no mortality

Acute dermal toxicity : LD0 (Rabbit, male and female): > 2.000 mg/kg
Remarks: no mortality

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

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

Skin corrosion/irritation

Not classified based on available information.

Product:

Assessment	: No skin irritation
Method	: OECD Test Guideline 404
Result	: No skin irritation

Components:

hexan-1-ol:

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

1-methyl-2-pyrrolidone:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: irritating

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

Method	: OECD Test Guideline 404
Result	: No skin irritation

cyclohexane:

Result	: Skin irritation
Species	: Rabbit
Result	: No skin irritation

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

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

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Serious eye damage/eye irritation

Not classified based on available information.

Product:

Assessment	:	No eye irritation
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Remarks	:	Vapours may cause irritation to the eyes, respiratory system and the skin.
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Components:

hexan-1-ol:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Moderate eye irritation

1-methyl-2-pyrrolidone:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	irritating

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

Method	:	OECD Test Guideline 405
Result	:	No eye irritation

cyclohexane:

Species	:	Rabbit
Result	:	slight irritation

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

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

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.

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Components:

hexan-1-ol:

Test Type	:	Draize Test
Species	:	Guinea pig
Result	:	Does not cause skin sensitisation.

1-methyl-2-pyrrolidone:

Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.

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

Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.

cyclohexane:

Test Type	:	Buehler Test
Species	:	Guinea pig
Result	:	Does not cause skin sensitisation.

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

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

Germ cell mutagenicity

Not classified based on available information.

Components:

hexan-1-ol:

Genotoxicity in vitro	:	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Remarks: Based on data from similar materials
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Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Application Route: Oral Method: OECD Test Guideline 474 Result: negative Remarks: Based on data from similar materials
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1-methyl-2-pyrrolidone:

Genotoxicity in vitro	:	Test Type: Ames test Method: OECD Test Guideline 471 Result: negative
	:	Test Type: In vitro mammalian cell gene mutation test

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Method: OECD Test Guideline 476
Result: negative

Test Type: unscheduled DNA synthesis assay
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: negative

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

Germ cell mutagenicity- Assessment : No genotoxic potential

cyclohexane:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: reverse mutation assay
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Species: Rat (male and female)
Application Route: inhalation (vapour)
Result: negative

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

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

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

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assessment cell mutagen.

Carcinogenicity

Not classified based on available information.

Components:

1-methyl-2-pyrrolidone:

Species	: Rat, male and female
Application Route	: Oral
NOAEL	: 207 - 283 mg/kg bw/day
Result	: negative

Species	: Rat, male
Application Route	: Inhalation
NOAEC	: 0,04 mg/l
Result	: negative

Species	: Mouse, male
Application Route	: Oral
NOAEL	: 89 mg/kg body weight
Method	: OECD Test Guideline 451
Result	: negative

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

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
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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
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Reproductive toxicity

May damage the unborn child.

Product:

Reproductive toxicity - Assessment	: Clear evidence of adverse effects on development, based on animal experiments.
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Components:

1-methyl-2-pyrrolidone:

- Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Method: OECD Test Guideline 416
Result: positive
- Effects on foetal development : Test Type: Pre-natal
Species: Rat
Application Route: Oral
Method: OECD Test Guideline 414
Result: positive
- Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments

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

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

cyclohexane:

- Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: inhalation (vapour)
Dose: 0, 1.72, 6.88, 24.08 mg/L
General Toxicity - Parent: NOAEC: 1,72 - 6,88 mg/l
General Toxicity F1: NOAEC: 24,08 mg/l
General Toxicity F2: NOAEC: 24,08 mg/l
Result: negative
- Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: inhalation (vapour)
Dose: 0, 1.72, 6.88, 24.08 mg/L
General Toxicity Maternal: NOAEC: 1,72 - 6,88 mg/l
Developmental Toxicity: NOAEC: 24,08 mg/l
Embryo-foetal toxicity: NOAEC Mating/Fertility: 24,08 mg/l
Result: negative
- Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

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

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General Toxicity - Parent: NOAEL: 500 mg/kg bw/day
General Toxicity F1: LOAEL: 25 mg/kg bw/day
Result: negative

Effects on foetal develop-
ment

: 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 - As-
sessment

: Weight of evidence does not support classification for repro-
ductive toxicity

STOT - single exposure

May cause respiratory irritation.

Product:

Assessment : May cause respiratory irritation.

Components:

1-methyl-2-pyrrolidone:

Assessment : May cause respiratory irritation.

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

Remarks : No significant adverse effects were reported

cyclohexane:

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Product:

Assessment : The substance or mixture is classified as specific target organ
toxicant, repeated exposure, category 2.

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Components:

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

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

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

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

Components:

hexan-1-ol:

Species	: Rat
NOAEL	: 1.127 - 1.243 mg/kg
Application Route	: Oral
Exposure time	: 13 weeks

1-methyl-2-pyrrolidone:

Species	: Rat, male
NOAEL	: 169 mg/kg
Application Route	: Oral

Species	: Mouse, male
NOAEL	: 89 mg/kg
Application Route	: Oral
Method	: OECD Test Guideline 408
Target Organs	: Liver

Species	: Rabbit
NOAEL	: 826 mg/kg
Application Route	: Dermal

Species	: Rat, male
	: 3 mg/l
Application Route	: inhalation (vapour)
Target Organs	: Testes

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

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

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Application Route : Inhalation
Exposure time : 30 d

cyclohexane:

Species : Rat, male and female
NOAEL : 24.080 mg/m3
Application Route : Inhalation
Test atmosphere : vapour
Exposure time : 90 d
Dose : 1720, 6884.25, 24,080 mg/m3
Method : OPPTS 870.3465

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

Aspiration toxicity

Not classified based on available information.

Components:

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

No aspiration toxicity classification

cyclohexane:

May be fatal if swallowed and enters airways.

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.

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Further information

Product:

Remarks : No data available

Components:

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

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 (Danio rerio (zebra fish)): 0,4 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 5.58 µg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: IC50 (Selenastrum capricornutum (green algae)): 41,43 mg/l Exposure time: 72 h
Toxicity to soil dwelling organisms	: LC50: 1.250 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms)
Toxicity to terrestrial organisms	: LD50: > 2.000 mg/kg Species: Coturnix japonica (Japanese quail) LC50: 0.15 Exposure time: 48 h Species: Apis mellifera (bees) Remarks: Contact

Components:

hexan-1-ol:

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): 97,2 - 97,5 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 201 mg/l Exposure time: 24 h
Toxicity to algae/aquatic	: EC50 (Pseudokirchneriella subcapitata (green algae)): 79,7

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plants
mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC (*Pseudomonas putida*): 62 mg/l
Exposure time: 16 h

Toxicity to daphnia and other : NOEC: 6,8 - 13 mg/l
aquatic invertebrates (Chronic toxicity)
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Remarks: Based on data from similar materials

1-methyl-2-pyrrolidone:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 500 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (*Daphnia magna* (Water flea)): 1.000 mg/l
aquatic invertebrates
Exposure time: 24 h

LC50 (*Palaeomonetes vulgaris* (Grass shrimp)): 1.107 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic : EC50 (*Desmodesmus subspicatus* (green algae)): 600,5 mg/l
plants
Exposure time: 72 h

Toxicity to microorganisms : EC50 (activated sludge): 100 mg/l
Exposure time: 48 h

EC50 (activated sludge): > 600 mg/l
Exposure time: 30 min

Toxicity to daphnia and other : NOEC: 12,5 mg/l
aquatic invertebrates (Chronic toxicity)
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Method: OECD Test Guideline 211

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

Toxicity to fish : LC50 (*Danio rerio* (zebra fish)): 0,034 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (*Daphnia magna* (Water flea)): 0,00023 mg/l
aquatic invertebrates
Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (*Scenedesmus capricornutum* (fresh water algae)): 70
plants
mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 10.000

Toxicity to fish (Chronic toxicity) : NOEC: 0,0044 mg/l
Exposure time: 28 d

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Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,00003 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 10.000

Toxicity to soil dwelling organisms : LC50: 16 mg/kg
Exposure time: 14 d
Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organisms : LC50: 0.00083 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity
Species: Apis mellifera (bees)

LD50: > 2.000 mg/kg
Species: Coturnix japonica (Japanese quail)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

cyclohexane:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4,53 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,9 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 3,428 mg/l
Exposure time: 72 h
Test Type: Growth inhibition

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,952 mg/l
Exposure time: 72 h
Test Type: Growth inhibition

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : IC50 (Bacteria): 29 mg/l
Exposure time: 15 h
Test Type: Respiration inhibition

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Toxicity to soil dwelling organisms : LC50: > 1 mg/cm²
Exposure time: 48 h
Species: Eisenia fetida (earthworms)

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 organ- : NOEC: $\geq 268,1$ mg/kg
isms : Exposure time: 35 d
Species: Birds

12.2 Persistence and degradability

Components:

hexan-1-ol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 61 - 77 %
Exposure time: 30 d
Method: OECD Test Guideline 301D

1-methyl-2-pyrrolidone:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 73 %
Exposure time: 28 d

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

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

cyclohexane:

Biodegradability : Inoculum: activated sludge, non-adapted
Result: Readily biodegradable.
Biodegradation: 77 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

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

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

12.3 Bioaccumulative potential

Components:

hexan-1-ol:

Partition coefficient: n- : log Pow: 1,8
octanol/water

1-methyl-2-pyrrolidone:

Partition coefficient: n- : log Pow: -0,46 (25 °C)
octanol/water

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

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

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

cyclohexane:

Bioaccumulation : Species: Pimephales promelas (fathead minnow)
Bioconcentration factor (BCF): 167
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 3,44 (20 °C)
pH: 7

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

12.4 Mobility in soil

Components:

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

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.

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12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

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.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

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)
ADR	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Abamectin)
RID	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Abamectin)
IMDG	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Abamectin)
IATA	: Environmentally hazardous substance, liquid, n.o.s. (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	: no
ADR	

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Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

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 3

1-methyl-2-pyrrolidone (Number on list 72, 71, 30)
cyclohexane (Number on list 57)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : 1-methyl-2-pyrrolidone

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) 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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E1 ENVIRONMENTAL HAZARDS

Occupational Illnesses (R-461-3, France) : 84

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Reinforced medical supervision (R4624-18) : This product requires a reinforced medical supervision under Article R4624-18 (Labour Code)

ICPE section (Installations classified for environmental protection; Environmental code R511-9) : 1436, 4510

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

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 (combination of avermectin B1a and avermectin B1b) (ISO)
ENCS	: Not in compliance with the inventory
ISHL	: Not 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

A chemical safety assessment is not required for this product (mixture).

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.

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H226	: Flammable liquid and vapour.
H300	: Fatal if swallowed.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H312	: Harmful in contact with skin.
H315	: Causes skin irritation.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H335	: May cause respiratory irritation.
H336	: May cause drowsiness or dizziness.
H360D	: May damage the unborn child.
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

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Repr.	: Reproductive toxicity
Skin Irrit.	: Skin irritation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
2006/15/EC	: Europe. Indicative occupational exposure limit values
2009/161/EU	: Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
FR VLE	: France. Occupational Exposure Limits
2006/15/EC / TWA	: Limit Value - eight hours
2009/161/EU / TWA	: Limit Value - eight hours
2009/161/EU / STEL	: Short term exposure limit
FR VLE / VME	: Time Weighted Average
FR VLE / VLCT (VLE)	: Short 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 - Interna-

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tional 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
Repr. 1B	H360D
STOT SE 3	H335
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification procedure:

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

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