

# SAFETY DATA SHEET

According to Commission Regulation (EU) 2015/830 of amending  
Regulation (EC) No 1907/2006



## ABAMECTIN 18 G/L EC

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	05.10.2021	50000660	Date of first issue: 05.10.2021

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

#### 1.1 Product identifier

##### Other means of identification

Product code 50000660

#### 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 Manufacturer or supplier's details

##### Supplier Address

CHEMINOVA A/S, a subsidiary of FMC Corporation  
Thyborønvej 78  
Harboøre, DK-7673  
Denmark

Telephone: +45 9690 9690  
Telefax: +45 9690 9691  
E-mail address: SDS-Info@fmc.com (E-Mail General Infor-  
mation)

#### 1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:  
Denmark: 45-69918573 (CHEMTREC)

Medical emergency:  
Denmark: +45 82 12 12 12

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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 3	H301: Toxic 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 ex- posure, Category 3, Respiratory system	H335: May cause respiratory irritation.

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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 :

- H301 Toxic if swallowed.
- H332 Harmful 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.

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

Precautionary statements :

**Prevention:**

- P201 Obtain special instructions before use.
- P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

**Response:**

- P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P391 Collect spillage.

Hazardous components which must be listed on the label:

1-methyl-2-pyrrolidone

hexan-1-ol

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

#### Additional Labelling

Restricted to professional users.

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The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 2,91 %

### 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.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
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	>= 20 - < 30
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	>= 20 - < 30
Distillates (petroleum), hydrotreated middle	64742-46-7 265-148-2 649-221-00-X	Acute Tox. 4; H332 Skin Irrit. 2; H315 Carc. 1B; H350 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 5
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 Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 10.000 M-Factor (Chronic aquatic toxicity): 10.000	>= 1 - < 2,5
calcium dodecylbenzenesulphonate	26264-06-2 247-557-8	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 0,25 - <= 1
2,6-di-tert-butyl-p-cresol	128-37-0	Aquatic Acute 1;	>= 0,25 - < 1

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	204-881-4	H400 Aquatic Chronic 1; H410	
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	

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.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Symptoms of poisoning may appear several hours later.  
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
If unconscious, place in recovery position and seek medical advice.
- 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 : Toxic if swallowed.  
Harmful 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.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, water spray or regular foam.

Unsuitable extinguishing media : High volume water jet

#### 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 : Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Carbon oxides

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.

#### 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).  
Keep in suitable, closed containers for disposal.

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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 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.
- 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. 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.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

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

		GV	5 ppm 20 mg/m <sup>3</sup>	DK OEL
Further information	Means that the substance can be absorbed through the skin., Guiding list of organic solvents., The substance has an EC-limit value			
cyclohexane	110-82-7	TWA	200 ppm 700 mg/m <sup>3</sup>	2006/15/EC
Further information	Indicative			
		GV	50 ppm 172 mg/m <sup>3</sup>	DK OEL
Further information	Guiding list of organic solvents., The substance has an EC-limit value			
2,6-di-tert-butyl-p-cresol	128-37-0	GV	10 mg/m <sup>3</sup>	DK OEL

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

Substance name	End Use	Exposure routes	Potential health effects	Value
1-methyl-2-pyrrolidone	Workers	Inhalation	Long-term systemic effects	14,4 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	40 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	4,8 mg/m <sup>3</sup>
hexan-1-ol	Workers	Inhalation	Long-term systemic effects	99 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	28 mg/kg bw/day
	Workers	Dermal	Long-term local effects	0,19 mg/m <sup>3</sup>
Castor oil. hydrogenated, ethoxylated	Workers	Dermal	Long-term systemic effects	16,6 mg/kg bw/day
cyclohexane	Workers	Inhalation	Long-term systemic effects	700 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	1400 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	700 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	1400 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	2016 mg/kg bw/day
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	3,5 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day

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

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Substance name	Environmental Compartment	Value
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
hexan-1-ol	Fresh water	0,51 mg/l
	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
Castor oil. hydrogenated, ethox- ylated	Soil	0,25 mg/kg
	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.)
Sorbitan monolaurate, ethoxylat- ed	Intermittent use (freshwater)	0,01 mg/l
	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 aver- mectin 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.)
2,6-di-tert-butyl-p-cresol	Soil	3,38 mg/kg dry weight (d.w.)
	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.)



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	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 protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Hand protection

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.

Respiratory protection : No personal respiratory protective equipment normally re-  
quired.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : pale, yellow

Odour : amine-like, slight

pH : 6,46 (20 °C)

Flash point : 70 °C  
Method: Pensky-Martens closed cup

Solubility(ies)  
Water solubility : Miscible

Viscosity  
Viscosity, dynamic : 19,9 mPa.s (20 °C)

### 9.2 Other information

	No data available
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### 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.

#### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

#### 10.5 Incompatible materials

Materials to avoid : Not applicable

#### 10.6 Hazardous decomposition products

See subsection 5.2.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Toxic if swallowed.  
Harmful if inhaled.

##### Product:

Acute oral toxicity	: LD50 (Rat): 281 mg/kg Method: OECD Test Guideline 425
Acute inhalation toxicity	: LC50 (Rat): > 3,87 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 (Rat): > 4.000 mg/kg Method: OECD Test Guideline 402

##### Components:

##### **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

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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

### 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

### Distillates (petroleum), hydrotreated middle:

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat, male and female): 4,6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

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

Acute oral toxicity : 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

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

### **calcium dodecylbenzenesulphonate:**

Acute oral toxicity : LD50 (Rat, male and female): 1300 milligram per kilogram  
Remarks: Based on data from similar materials

Acute inhalation toxicity : Remarks: Not classified

Acute dermal toxicity : LD50 (Rat, male and female): > 2000 milligram per kilogram  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

### **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

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:**

Method : OECD Test Guideline 404  
Result : Mild skin irritant

Remarks : May cause skin irritation and/or dermatitis.

### **Components:**

#### **1-methyl-2-pyrrolidone:**

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

#### **hexan-1-ol:**

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

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### **Distillates (petroleum), hydrotreated middle:**

Species	:	Rabbit
Result	:	Skin irritation
Remarks	:	Based on data from similar materials

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

Method	:	OECD Test Guideline 404
Result	:	slight irritation

### **calcium dodecylbenzenesulphonate:**

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation

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

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

### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Product:**

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:**

#### **1-methyl-2-pyrrolidone:**

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

#### **hexan-1-ol:**

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

### **Distillates (petroleum), hydrotreated middle:**

Species	:	Rabbit
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

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

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Method : OECD Test Guideline 405  
Result : slight irritation

### calcium dodecylbenzenesulphonate:

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irreversible effects on the eye  
Remarks : Based on data from similar materials

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irreversible effects on the eye

### 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:

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

### Components:

#### 1-methyl-2-pyrrolidone:

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

#### hexan-1-ol:

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

#### Distillates (petroleum), hydrotreated middle:

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Result : Does not cause skin sensitisation.  
Remarks : Based on data from similar materials

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

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

### calcium dodecylbenzenesulphonate:

Test Type : Maximisation Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.  
Remarks : Based on data from similar materials

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

Test Type : <\*\* Phrase language not available: [ 6N ] CUST -  
FMC\_00000000029 \*\*>  
Species : Humans  
Result : Does not cause skin sensitisation.

### Germ cell mutagenicity

Not classified based on available information.

### Components:

#### 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  
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

#### 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  
  
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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### **Distillates (petroleum), hydrotreated middle:**

Genotoxicity in vitro	: Test Type: reverse mutation assay Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative
Genotoxicity in vivo	: Test Type: Bone marrow chromosome aberration Species: Rat (male and female) Application Route: Intraperitoneal injection Result: negative

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

Germ cell mutagenicity- Assessment	: No genotoxic potential
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### **calcium dodecylbenzenesulphonate:**

Genotoxicity in vitro	: Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials
Genotoxicity in vivo	: Test Type: chromosome aberration assay Species: Rat (male and female) Application Route: Oral Exposure time: 90 d Result: negative Remarks: Based on data from similar materials
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



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Result: negative

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

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

##### **calcium dodecylbenzenesulphonate:**

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 720 d  
NOAEL : 250 mg/kg body weight  
Result : negative  
Remarks : Based on data from similar materials

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

##### **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

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

### Reproductive toxicity

May damage the unborn child.

#### Product:

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

#### 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

##### **Distillates (petroleum), hydrotreated middle:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat  
Application Route: Oral  
General Toxicity F1: NOAEL: 1.000 mg/kg body weight  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Dermal  
General Toxicity Maternal: LOAEL: 50 mg/kg body weight  
Developmental Toxicity: NOAEL: 50 mg/kg body weight  
Remarks: Developmental effects are a consequence of maternal toxicity.  
Based on data from similar materials

##### **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.

##### **calcium dodecylbenzenesulphonate:**

Effects on fertility : Test Type: Fertility/early embryonic development

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Species: Rat, male and female  
Application Route: Ingestion  
General Toxicity - Parent: NOAEL: 400 mg/kg body weight  
Method: OECD Test Guideline 422  
Result: negative

Effects on foetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Ingestion  
General Toxicity Maternal: NOAEL: 300 mg/kg body weight  
Developmental Toxicity: NOAEL: 600 mg/kg body weight  
Method: OECD Test Guideline 422  
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  
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

### STOT - single exposure

May cause respiratory irritation.

#### Product:

Assessment : May cause respiratory irritation.

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### 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

#### **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.

### 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.

### **Repeated dose toxicity**

### Components:

#### **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

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### hexan-1-ol:

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

### Distillates (petroleum), hydrotreated middle:

Species	: Rat
NOAEL	: >= 1,71 mg/l
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 13 weeks
Remarks	: Based on data from similar materials

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

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

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

### calcium dodecylbenzenesulphonate:

Species	: Rat, male and female
NOAEL	: 85 mg/kg
LOAEL	: 145 mg/kg
Application Route	: Oral
Exposure time	: 9 months
Remarks	: Based on data from similar materials

Species	: Rat, male and female
NOAEL	: 100 mg/kg
LOAEL	: 200 mg/kg
Application Route	: Oral
Exposure time	: 28 d
Method	: OECD Test Guideline 422
Remarks	: Based on data from similar materials

Species	: Rat, male
LOAEL	: 286 mg/kg
Application Route	: Skin contact
Exposure time	: 15 d
Remarks	: Based on data from similar materials

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

Species	: Pig, male and female
NOAEL	: >= 61 mg/kg bw/day

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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:

#### Distillates (petroleum), hydrotreated middle:

May be fatal if swallowed and enters airways.

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

No aspiration toxicity classification

### Further information

#### Product:

Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,201 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

LC50 (Cyprinus carpio (Carp)): 3,28 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0,038 mg/l  
aquatic invertebrates Exposure time: 48 h  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): 66,8 mg/l  
plants Exposure time: 72 h  
Remarks: Based on data from similar materials

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1.24 µg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Remarks: Based on data from similar materials

Toxicity to soil dwelling organisms : LC50: > 2.000 mg/kg  
Exposure time: 14 d  
Species: Eisenia fetida (earthworms)  
Remarks: Based on data from similar materials

Toxicity to terrestrial organisms : LD50: 446 mg/kg  
Exposure time: 14 d  
Species: Coturnix japonica (Japanese quail)

LD50: 4.17  
Exposure time: 48 h  
Species: Apis mellifera (bees)

### Components:

#### **1-methyl-2-pyrrolidone:**

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.000 mg/l  
Exposure time: 24 h  
  
LC50 (Palaeomonetes vulgaris (Grass shrimp)): 1.107 mg/l  
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 600,5 mg/l  
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 aquatic invertebrates (Chronic toxicity) : NOEC: 12,5 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

#### **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

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Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 79,7 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 aquatic invertebrates (Chronic toxicity) : NOEC: 6,8 - 13 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Remarks: Based on data from similar materials

### Distillates (petroleum), hydrotreated middle:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 24 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1.000 mg/l  
Exposure time: 24 h  
Test Type: static test  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): 10 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials

Toxicity to microorganisms : EL50 (Tetrahymena pyriformis): > 1.000 mg/l  
Exposure time: 40 h  
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

### 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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.1 µg/l  
Exposure time: 48 h

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

M-Factor (Acute aquatic toxicity) : 10.000

M-Factor (Chronic aquatic toxicity) : 10.000



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toxicity)

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

Toxicity to terrestrial organisms : LD50: 0,00083 µg/bee  
Exposure time: 48 h  
Species: Apis mellifera (bees)

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

### calcium dodecylbenzenesulphonate:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 2,8 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 203  
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,5 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 7,9 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials  
No toxicity at the limit of solubility

EC50 (Pseudokirchneriella subcapitata (green algae)): 65,4 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials  
No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge): 500 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity) : NOEC: 0,23 mg/l  
Exposure time: 30 d  
Species: Fish  
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,253 mg/l  
Exposure time: 30 d  
Species: Daphnia (water flea)  
Method: QSAR

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Toxicity to soil dwelling organisms : LC50: 1.000 mg/kg  
Exposure time: 14 d  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 207

Toxicity to terrestrial organisms : LD50: 1.356 mg/kg  
Exposure time: 14 d  
Species: Colinus virginianus (Bobwhite quail)  
Method: OECD Test Guideline 223

### 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

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

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

### 12.2 Persistence and degradability

#### Components:

##### **1-methyl-2-pyrrolidone:**

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

##### **hexan-1-ol:**

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

##### **Distillates (petroleum), hydrotreated middle:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation:  $> 60$  %  
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.

##### **calcium dodecylbenzenesulphonate:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301E

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

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

### 12.3 Bioaccumulative potential

#### Components:

##### **1-methyl-2-pyrrolidone:**

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

### hexan-1-ol:

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

### Distillates (petroleum), hydrotreated middle:

Partition coefficient: n-octanol/water : log Pow: > 4

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

Bioaccumulation : Species: Danio rerio (zebra fish)  
Bioconcentration factor (BCF): 54  
Remarks: See section 9 for octanol-water partition coefficient.  
Bioaccumulation is unlikely.

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

### calcium dodecylbenzenesulphonate:

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 70,79  
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4,77 (25 °C)

### 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

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to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### 12.6 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.  
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

ADN	: UN 2902
ADR	: UN 2902
RID	: UN 2902
IMDG	: UN 2902
IATA	: UN 2902

### 14.2 UN proper shipping name

ADN	: PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin)
ADR	: PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin)
RID	: PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin)
IMDG	: PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin)

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**IATA** : Pesticide, liquid, toxic, n.o.s.  
(Abamectin)

### 14.3 Transport hazard class(es)

**ADN** : 6.1  
**ADR** : 6.1  
**RID** : 6.1  
**IMDG** : 6.1  
**IATA** : 6.1

### 14.4 Packing group

**ADN**  
Packing group : II  
Classification Code : T6  
Hazard Identification Number : 60  
Labels : 6.1

**ADR**  
Packing group : II  
Classification Code : T6  
Hazard Identification Number : 60  
Labels : 6.1  
Tunnel restriction code : (D/E)

**RID**  
Packing group : II  
Classification Code : T6  
Hazard Identification Number : 60  
Labels : 6.1

**IMDG**  
Packing group : II  
Labels : 6.1  
EmS Code : F-A, S-A

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 662  
Packing instruction (LQ) : Y641  
Packing group : II  
Labels : Toxic

**IATA (Passenger)**  
Packing instruction (passenger aircraft) : 654  
Packing instruction (LQ) : Y641  
Packing group : II  
Labels : Toxic

### 14.5 Environmental hazards

**ADN**  
Environmentally hazardous : yes

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### ADR

Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : 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 Transport in bulk according to Annex II of Marpol and the IBC Code

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

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations 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)  
formaldehyde (Number on list 72, 28)

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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.

E1 ENVIRONMENTAL  
HAZARDS

### Other regulations:

When evaluating a workplace, measures must be taken to ensure that employees are not exposed to conditions that may pose a risk during pregnancy or breastfeeding (cf. The Danish Working Environment Authority's Executive Order on The Performance of Work)

Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people above the age of 15 are, however, except from this rule if the product is a necessary part of their education.

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

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AICS	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.  MIXTURE OF (10E,14E,16E)- (1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-6'-[(S)-SEC-BUTYL]-21,24-DIHYDROXY-5',11,13,22-TETRAMETHYL-2-OXO-(3,7,19-TRIOXATETRACYCLO[15.6.1.14,8.020,24]PENTACOSA-10,14,16,22-TETRAENE)-6-SPIRO-2'-(5',6'-DIHYDRO-2'H-PYRAN)-12-YL 2,6-DIDEOXY-4-O-(2,6-DIDEOXY-3-O-METHYL-A-L-ARABINO-HEXOPYRANOSYL)-3-O-METHYL-A-L-ARABINO-HEXOPYRANOSIDE AND(10E,14E,16E)- (1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-21,24-DIHYDROXY-6'-ISOPROPYL-5',11,13,22-TETRAMETHYL-2-OXO-(3,7,19-TRIOXATETRACYCLO[15.6.1.14,8.020,24]PENTACOSA-10,14,16,22-TETRAENE)-6-SPIRO-2'-(5',6'-DIHYDRO-2'H-PYRAN)-12-YL 2,6-DIDEOXY-4-O-(2,6-DIDEOXY-3-O-METHYL-A-L-ARABINO-HEXOPYRANOSYL)-3-O-METHYL-A-L-ARABINO-HEXOPYRANOSID
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory



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NZIoC : 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

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.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H350	: May cause cancer.
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.
H411	: Toxic to aquatic life with long lasting effects.
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
Asp. Tox.	: Aspiration hazard
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
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
DK OEL	: Denmark. Occupational Exposure Limits
2006/15/EC / TWA	: Limit Value - eight hours
2009/161/EU / TWA	: Limit Value - eight hours

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2009/161/EU / STEL	: Short term exposure limit
DK OEL / GV	: Long term exposure limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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; 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. 3	H301
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

### Disclaimer

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