

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT INFORMATION

Product name : VERTIMEC 018 EC
Design Code : A8612AI
Use : Insecticide
Company : Syngenta Crop Protection AG
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 CH-4002 Basel
 Switzerland
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Harmful

Dangerous for
the environment

2. HAZARDS IDENTIFICATION

Combustible liquid
 Harmful if swallowed.
 Causes damage to organs through prolonged or repeated exposure if swallowed.
 Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No. (REACH Regis- tration Number)	Symbol(s)	R-phrase(s)	Concentration
abamectin	71751-41-2, 65195-56-4, 65195-55-3		N, T+	R26/28 R48/25 R50/53	1.8 % W/W
cyclohexanol	108-93-0	203-630-6	Xn	R20/22 R37/38	50 - 70 % W/W
1,2-propanediol	57-55-6	200-338-0			10 - 20 % W/W

* Substances for which there are Community workplace exposure limits.
For the full text of the R-phrases mentioned in this Section, see Section 16.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

4. FIRST AID MEASURES

- General advice** : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.
- Inhalation** : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Symptoms** : Lack of coordination
Tremors
Dilatation of the pupil
- Medical advice** : This material is believed to enhance GABA activity in animals. It is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic mectin exposure.
Toxicity can be minimized by early administration of chemical absorbents (e.g. activated charcoal).
If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged.
Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures as indicated by clinical signs, symptoms and measurements.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray
- Extinguishing media which shall not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during** : As the product contains combustible organic components, fire will

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

- fire fighting** produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
- Special protective equipment for fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- 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).
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

- Advice on safe handling** : No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.

STORAGE

- Requirements for storage areas and containers** : No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	Exposure limit(s)	Type of exposure limit	Source
abamectin	0.02 mg/m ³	8 h TWA	SYNGENTA
1,2-propanediol	10 mg/m ³ 150 ppm 470 mg/m ³	Particulates Total (vapour & particulates)	8 h TWA UK HSE
cyclohexanol	50 ppm 50 ppm 50 ppm 50 ppm	8 h TWA 8 h TWA 8 h TWA 15 min STEL 8 h TWA	ACGIH DFG SUVA SUVA UK HSE

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne mists or vapors are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : No personal respiratory protective equipment normally required.
A particulate filter respirator may be necessary until effective technical measures are installed.
- Hand protection** : Chemical resistant gloves are not usually required.
Select gloves based on the physical job requirements.
- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : No special protective equipment required.
Select skin and body protection based on the physical job requirements.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Form	: liquid
Colour	: pale yellow to brown
Odour	: aromatic
pH	: 3.2 at 1.0 % w/v (25 °C)
Flash point	: 69 °C Pensky-Martens c.c.
Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Density	: 0.98 g/cm ³

10. STABILITY AND REACTIVITY

Hazardous decomposition products	: Combustion or thermal decomposition will evolve toxic and irritant vapors.
Hazardous reactions	: None known. Hazardous polymerisation does not occur. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 female Rat, 891 mg/kg GHS-Classification Category 4 The toxicological data has been taken from products of similar composition.
Acute inhalation toxicity	: LC50 male and female Rat, > 5.04 mg/l, 4 h GHS-Classification None The toxicological data has been taken from products of similar composition.
Acute dermal toxicity	: LD50 male and female Rat, > 5,050 mg/kg GHS-Classification None The toxicological data has been taken from products of similar composition.
Skin irritation	: Rabbit: Non-irritating GHS-Classification None The toxicological data has been taken from products of similar composition.
Eye irritation	: Rabbit: Moderately irritating GHS-Classification None The toxicological data has been taken from products of similar composition.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

Sensitisation : guinea pig: Not a skin sensitizer in animal tests.
GHS-Classification
None
The toxicological data has been taken from products of similar composition.

Long term toxicity

abamectin : Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.
Reproductive toxicity noted in rats that is not relevant to humans.
: Central nervous system effects in chronic/subchronic animal tests.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Biodegradability

abamectin : Abamectin is not readily biodegradable.

Stability in water

abamectin : Degradation half life: 1.7 d
Abamectin is not persistent in water.

Stability in soil

abamectin : Degradation half life : 12 - 52 d
Abamectin is not persistent in soil.

Mobility

abamectin : Abamectin has slight mobility in soil.

Bioaccumulation

abamectin : Abamectin does not bioaccumulate.

ECOTOXICITY EFFECTS

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout), 0.247 mg/l , 96 h
Based on test results obtained with similar product.

Toxicity to daphnia and other aquatic invertebrates. : EC50 *Daphnia magna* (Water flea), 0.095 mg/l , 48 h
Based on test results obtained with similar product.

Toxicity to algae : EbC50 *Pseudokirchneriella subcapitata* (green algae), 80 mg/l , 72 h
: ErC50 *Pseudokirchneriella subcapitata* (green algae), > 100 mg/l , 72 h
Based on test results obtained with similar product.

FURTHER INFORMATION ON ECOLOGY

Additional ecological information : GHS-Classification
Category 1

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

13. DISPOSAL CONSIDERATIONS

- Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging** : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

14. TRANSPORT INFORMATION

Land transport

ADR/ RID:

UN-Number: 3082
 Class: 9
 Labels: 9
 Packaging group : III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (ABAMECTIN)
 Environmentally hazardous: Environmentally hazardous

Sea transport

IMDG:

UN-Number: 3082
 Class: 9
 Labels: 9
 Packaging group: III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (ABAMECTIN)
 Marine pollutant : Marine pollutant

Air transport

IATA-DGR

UN-Number: 3082
 Class: 9
 Labels: 9
 Packaging group: III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (ABAMECTIN)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- abamectin
- cyclohexanol

Symbol(s)	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R22 R48/22 R50/53	Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

VERTIMEC 018 EC

Version 3

Revision Date 04.09.2009

Print Date 04.09.2009

S-phrases(s)	S 2	Keep out of the reach of children.
	S13	Keep away from food, drink and animal feedingstuffs.
	S20/21	When using do not eat, drink or smoke.
	S35	This material and its container must be disposed of in a safe way.
	S57	Use appropriate container to avoid environmental contamination.

Note : The mixture is classified as dangerous in accordance with Directive 1999/45/EC.

Special labelling of certain mixtures : To avoid risks to man and the environment, comply with the instructions for use.

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3:

R20/22	Also harmful by inhalation and if swallowed.
R26/28	Very toxic by inhalation and if swallowed.
R37/38	Irritating to respiratory system and skin.
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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