Abamectin techn. min. 97%

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 21/09/2011 Revision date: 13/07/2015 Supersedes: 11/06/2015 Version: 1.1

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

1.1. Product identifier

Product form	:	Substance
Name	:	Abamectin techn. min. 97%
EC index no	:	606-143-00-0
CAS No	:	71751-41-2
Type of product	:	Biocide
Formula	:	C48H72O14(B1a), C47H70O14(B1b)
Synonyms	:	Affirm / Zephyr / Avermectin B1 / Avermectin B1a / Abamectin (combination of avermectin B1a and avermectin B1b) / Aversectin C

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

1.2.1. Relevant identified uses

Main use category	:	Professional use
Use of the substance/mixture	:	Insecticide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Simonis B.V.
7000 AP Doetinchem - The Netherlands
T +31 314 333 700 - F +31 314 344 167
agrochem@simonisbv.nl - http://www.simonisbv.nl/

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Repr. 2	H361d	
Acute Tox. 2 (Oral)	H300	
Acute Tox. 1 (Inhalation)	H330	
STOT RE 1	H372	
Aquatic Acute 1	H400	(M=10000)
Aquatic Chronic 1	H410	(M=10000)

Full text of H-phrases: see section 16

Specific concentration limits:

(0,5 =< C < 5)	STOT RE 2, H373
(C >= 5)	STOT RE 1, H372

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS06 GHS08 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H361d - Suspected of damaging the unborn child
H300 - Fatal if swallowed
H330 - Fatal if inhaled
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

Precautionary statements (CLP) : P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P301+P310 - IF SWALLOWED: Immediately call a doctor
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Fatal if inhaled. Fatal if swallowed.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Abamectin techn. min. 97%

CAS No : 71751-41-2

EC index no : 606-143-00-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Abamectin techn. min. 97%	(CAS No) 71751-41-2 (EC index no) 606-143-00-0	> 95	Repr. 2, H361d Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Inhalation), H330 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10000) Aquatic Chronic 1, H410 (M=10000)

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Abamectin techn. min. 97%	(CAS No) 71751-41-2 (EC index no) 606-143-00-0	(0,5 =< C < 5) STOT RE 2, H373 (C >= 5) STOT RE 1, H372

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately. Never give anything by mouth to an unconscious person. show this sheet where possible.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not apply mouth-to-mouth resuscitation. Call a physician immediately. In case of breathing difficulties administer oxygen.

First-aid measures after skin contact : Remove contaminated clothes. Wash skin with plenty of water. If skin irritation persists, take medical advice.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Call a physician immediately. Give nothing to drink.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after ingestion : Harmful if swallowed. May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Chronic symptoms : Probably human carcinogenic.

4.3. Indication of any immediate medical attention and special treatment needed

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.
Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors.

Toxicity following accidental ingestion of abamectin can be minimized by early administrationof chemical adsorbents (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 (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal.
Since abamectin 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 abamectin exposure.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Non flammable.
Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	For further information, refer to section 10 : "Stability and Reactivity". Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	:	Evacuate and limit access.
Firefighting instructions	:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	:	Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	:	Clear contaminated areas thoroughly.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	Concerning personal protective equipment to use, see item 8. Wear a self-contained breathing apparatus and chemical resistant suit.
Emergency procedures	:	Evacuate unnecessary personnel. Do not breathe dust. Only qualified personnel equipped with suitable protective equipment may intervene.
Measures in case of dust release	:	Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

Protective equipment	:	Equip cleanup crew with proper protection. For further information refer to section 8 :" Exposure-controls/personal protection".
Emergency procedures	:	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage.
Methods for cleaning up	:	Recover mechanically the product. Notify authorities if product enters sewers or public waters. Minimize generation of dust. Clean using water and a detergent.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8 :" Exposure-controls/personal protection". Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Concerning personal protective equipment to use, see item 8. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Keep away from food and drink.
Heat and ignition sources	:	Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Insecticides, acaricides and products to control other arthropods.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	:	Ensure good ventilation of the work station.
Personal protective equipment	:	Gloves. Gas mask. Safety glasses. Protective clothing.
Hand protection	:	Wear suitable gloves resistant to chemical penetration. Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Since the product consists of several substances, it is possible to estimate the durability of the glove material beforehand and it therefore needs to be tested before use. The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection	:	Safety glasses. Provide readily accessible eye wash stations and safety showers.
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Wear respiratory protection

Other information	:	Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Crystalline powder.
Colour	:	White. light yellow.
Odour	:	None.
Odour threshold	:	No data available
pH	:	4,5 - 7
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	150 - 155 °C
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	199,98 mPa
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1,16 g/cm³ 20-25°C
Solubility	:	Water: 7 - 10 µg/l Ether: 7 - 10 g/100ml
Log Pow	:	No data available

Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

Extremely high or low temperatures. Keep out of direct sunlight.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2). At high temperature may liberate toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Inhalation: Fatal if inhaled.

Abamectin techn. min. 97% (71751-41-2)	
LD50 oral rat	7,3 - 17,3 mg/kg ♀8.60 - 18.4
LD50 oral	172,1 - 368 mg/kg ♀195.4-409.3

Skin corrosion/irritation	:	The product is not considered to be irritating to the skin pH: 4,5 - 7
Serious eye damage/irritation	:	The product is not considered to be irritating to the eyes pH: 4,5 - 7
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Suspected of damaging the unborn child.
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Abamectin techn. min. 97% (71751-41-2)	
LC50 fishes 1	0,0036 ppm Oncorhynchus mykiss (Rainbow trout)
LC50 fish 2	0,0096 ppm Lepomis macrochirus
LC50 other aquatic organisms 1	0,00037 ppm Waterflea
Bees	LC50/EC50 0.002 µg/bee
Additional information	8-dagen dieet Bobwhite Quail LC50/EC50 3.012 ppm; Mallard Duck LC50/EC50 383 ppm

12.2. Persistence and degradability

Abamectin techn. min. 97% (71751-41-2)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Abamectin techn. min. 97% (71751-41-2)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Abamectin techn. min. 97% (71751-41-2)	
Mobility in soil	Low mobility (soil)

12.5. Results of PBT and vPvB assessment

Abamectin techn. min. 97% (71751-41-2)
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

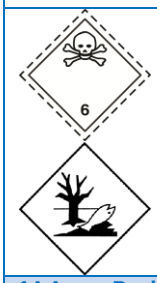
Additional information : Do not re-use empty containers.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 02 01 08* - agrochemical waste containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
2811	2811	2811	2811	2811
14.2. UN proper shipping name				
TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.	Toxic solid, organic, n.o.s.	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.
Transport document description				
UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (Abamectin techn. min. 97%), 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS			
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : T2

Special provisions (ADR) : 274, 614

Limited quantities (ADR) : 500g

Excepted quantities (ADR)	:	E4
Packing instructions (ADR)	:	P002, IBC08
Special packing provisions (ADR)	:	B4
Mixed packing provisions (ADR)	:	MP10
Portable tank and bulk container instructions (ADR)	:	T3
Portable tank and bulk container special provisions (ADR)	:	TP33
Tank code (ADR)	:	SGAH, L4BH
Tank special provisions (ADR)	:	TU15, TE19
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Special provisions for carriage - Packages (ADR)	:	V11
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13, CV28
Special provisions for carriage - Operation (ADR)	:	S9, S19
Hazard identification number (Kemler No.)	:	60
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	2X

- Transport by sea

Special provisions (IMDG)	:	274
Limited quantities (IMDG)	:	500 g
Excepted quantities (IMDG)	:	E4
Packing instructions (IMDG)	:	P002
IBC packing instructions (IMDG)	:	IBC08
IBC special provisions (IMDG)	:	B2, B4
Tank instructions (IMDG)	:	T3
Tank special provisions (IMDG)	:	TP33
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-A
Stowage category (IMDG)	:	B
Properties and observations (IMDG)	:	Toxic if swallowed, by skin contact or by inhalation.
MFAG-No	:	154

- Air transport

PCA Excepted quantities (IATA)	:	E4
PCA Limited quantities (IATA)	:	Y644
PCA limited quantity max net quantity (IATA)	:	1kg
PCA packing instructions (IATA)	:	669
PCA max net quantity (IATA)	:	25kg
CAO packing instructions (IATA)	:	676
CAO max net quantity (IATA)	:	100kg
Special provisions (IATA)	:	A3, A5
ERG code (IATA)	:	6L

- Inland waterway transport

Classification code (ADN)	:	T2
Special provisions (ADN)	:	274, 614, 82
Limited quantities (ADN)	:	500 g
Excepted quantities (ADN)	:	E4
Equipment required (ADN)	:	PP, EP
Number of blue cones/lights (ADN)	:	2
Not subject to ADN	:	No

- Rail transport

Classification code (RID)	: T2
Special provisions (RID)	: 274, 614
Limited quantities (RID)	: 500g
Excepted quantities (RID)	: E4
Packing instructions (RID)	: P002, IBC08
Special packing provisions (RID)	: B4
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAH, L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W11
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE9
Hazard identification number (RID)	: 60
Carriage prohibited (RID)	: No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Abamectin techn. min. 97% is not on the REACH Candidate List

Abamectin techn. min. 97% is not on the REACH Annex XIV List

Type of product (Biocide) 18 - Insecticides, acaricides and products to control other arthropods

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
Classification according to Regulation (EC) No. 1272/2008 [CLP].

Abbreviations and acronyms:

CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
LC50	Median lethal concentration
LD50	Median lethal dose
SDS	Safety Data Sheet
	CAS (Chemical Abstracts Service) number
	EG-nr.: EINECS- en ELINCS-number
	EINECS: European Inventory of Existing Commercial Substances

Data sources	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	:	REACH Disclaimer: This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number). DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Repr. 2	Reproductive toxicity, Category 2
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H300	Fatal if swallowed
H330	Fatal if inhaled
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

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product