



兴农药业(中国)有限公司

SINON CHEMICAL (CHINA) CO., LTD.

上海市奉贤区柘林镇北村路 28 号 (201416)
No. 28, Beicun Road, Zhelin Town, Fengxian District, Shanghai, P.R.C.

TEL: 021-57493733
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SAFETY DATA SHEET

Abamectin 1.8% EC

Sinon Corporation SDS Data Bank No. SIF23-02EC06

Issue Date: Sep. 20, 2010

Revised Date: Nov. 12, 2019

Version: 06

According to ST/SG/AC.10/30/Rev.6 GHS of Classification and Labelling of Chemicals

1. IDENTIFICATION OF PRODUCT AND MANUFACTURER

1.1. Identification:

Product name : Abamectin 1.8% EC
Common name : Abamectin (BSI, draft E-ISO, ANSI);
Abamectin ((f) draft F-ISO)
Empirical formula : $C_{48}H_{72}O_{14}$ (avermectin B_{1a});
 $C_{47}H_{70}O_{14}$ (avermectin B_{1b})
Molecular weight : 873.1 (avermectin B_{1a}); 859.1 (avermectin B_{1b})

1.2. Uses:

Insecticide/Miticide

1.3. Manufacturer:

Sinon Chemical (China) Co., Ltd.

No. 28, Beicun Road, Zhelin Town, Fengxian District, Shanghai,
P. R. C.

Tel: 86-21-57493733 Fax: 86-21-57493703

Location of plant

No. 28, Beicun Road, Zhelin Town, Fengxian District, Shanghai,
P. R. C.

Tel: 86-21-57493733 Fax: 86-21-57493703

1.4. Emergency Telephone:

86-21-57493733

2. HAZARDS IDENTIFICATION

2.1. Classification:

Acute toxicity, oral Category 3
Eye damage/irritation Category 2A
Skin corrosion/irritation Category 3
Hazardous to the aquatic environment, acute hazard Category 1

2.2. Labelling:



2.3. Signal word:

Danger

2.4. Hazard statement:

H301 Toxic if swallowed
H316 Causes mild skin irritation.
H319 Causes serious eye irritation
H400 Very toxic to aquatic life

2.5. Precautionary Statement Prevention:

P264 Wash face/hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

2.6. Precautionary Statement Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/ physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.
P321 Specific treatment (see section 4 on this label).
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.
2.7. Precautionary Statement Storage:
P405 Store locked up.
2.8. Precautionary Statement Disposal:
P501 Dispose of contents/container in accordance with local / national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percentage
Abamectin	71751-41-2	1.8% w/v min.

4. FIRST AID MEASURE

4.1. First Aid:

Ingestion : DO NOT INDUCE VOMITING. If victim is fully conscious, give a large quantity of water to drink and get medical attention. Never give anything by mouth to an unconscious person.
Inhalation : If inhaled, move person to fresh air. If person is not breathing, call an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Eye contact : Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.
Skin contact : Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

4.2. Advices to Medical Treatment:

If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels) 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,



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benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

4.3. Antidote:

There is no specific antidote if this product is ingested.

5. FIRE FIGHTING MEASURE

5.1. Extinguishing Media:

Use dry chemical, foam, or CO₂ extinguishing media.

5.2. Fire Fighting Instructions:

Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. This product is a NFPA Class IIIA Combustible Liquid.

5.3. Special Protective Equipment for Fire-fighters:

Wear full protective clothing and self-contained breathing apparatus.

5.4. Hazardous Heating Decomposed Products:

Thermal decomposition products may include, but are not limited to, carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions:

Wear chemical goggles or a full-face shield, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved chemical cartridge pesticide respirator with organic vapor pre-cartridges or a supplied-air respirator.

6.2. Environmental Precautions:

Do not allow wash water to contaminate water supplies.

6.3. Methods for Cleaning Up:

For spills, cover with an absorbent material such as pet litter. Sweep up, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

7.1. Handling:

Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

7.2. Storage:

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limits:

OSHA/PEL: Not established

ACOM/TLV: Not established

8.2. Occupational Exposure Controls:

Respiratory protection:

To avoid breathing mist or vapors, wear a NIOSH-approved

chemical cartridge pesticide respirator with organic vapor pre-cartridges or a supplied-air respirator.

Hand protection:

Wear rubber gloves

Skin protection:

To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

Eye protection:

To avoid eye contact, wear chemical goggles or a full-face shield.

8.3. Environmental Exposure Controls:

No information is available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Light-amber liquid
Odor	: Characteristic odor
pH	: 5.51 (1% solution)
Melting Point	: Not applicable
Flash Point	: 65.0°C
Explosive Properties	: Not explosive
Oxidizing Properties	: Not oxidizing
Vapor Pressure	: <0.01 mPa (25°C) (Tech.)
Vapor density	: Avermectin B _{1a} : 30.32 Avermectin B _{1b} : 29.83
Relative Density	: 0.84 g/ml (20°C)
Solubility	: Miscible with water
Log P _{ow}	: 4.4±0.3 (Tech.)
Evaporation Rate	: Not Available

10. STABILITY AND REACTIVITY

10.1. Stability:

Stable under the normal temperatures and pressures.

10.2. Conditions to Avoid:

The product is not corrosive to aluminum, iron and steel, but corrosive to copper and brass.

10.3. Materials to Avoid:

The product is not compatible with alkaline material, and is corrosive to copper and brass.

10.4. Hazardous decomposition products:

Will not occur.

11. TOXICOLOGICAL INFORMATION

11.1. Acute Toxicity:

Acute oral LD₅₀ : 271 mg/kg for female rat

Acute dermal LD₅₀ : >2,150 mg/kg for rats

Acute inhalation LC₅₀ : 18.13 mg/l for female rat

Eye irritation : Slight-irritating on the eye (rabbits)

Skin irritation : Moderately irritating to skin (rabbits)

Skin sensitization : Non-sensitive (Guinea pigs)

Chronic Toxicity:

In a 1-year study with dogs given oral doses of abamectin, dogs at the 0.5 and 1 mg/kg/day doses exhibited pupil dilation, weight loss, lethargy, tremors, and recumbency.

Similar results were seen in a 2-year study with rats fed 0.75, 1.5, or 2 mg/kg/day.

Rats at all the dosage levels exhibited body weight gains significantly



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higher than the controls. A few individuals in the high dose group exhibited tremors. When mice were fed 8 mg/kg/day for 94 weeks, the males developed dermatitis and changes in blood formation in the spleen, while females exhibited tremors and weight loss.

Abamectin was not carcinogenic in rats or mice fed the maximum tolerated doses. The rats were fed dietary doses of 0.75, 1.5, or 2 mg/kg/day for 24 months, and the mice were fed 2, 4 or 8 mg/kg/day for 22 months. These represent the maximum tolerated doses.

11.2. Reproduction:

In rats, the pup toxicity NOEL was 0.12 mg/kg/day. At 0.40 mg/kg/day, there were increased stillbirths, decreased pup viability, decreased lactation, and decreased pup weights.

Reproductive test on rats with Abamectin could be considered to be negative.

11.3. Teratogenicity:

Abamectin produced cleft palate in the offspring of treated mice and rabbits, but only at doses that were also toxic to the mothers. There were no birth defects in the offspring of rats given up to 1 mg/kg/day. Abamectin is unlikely to cause teratogenic effects except at doses toxic to the mother.

11.4. Mutagenic Toxicity:

Ames test, *Salmonella typhimurium* (TA97a, TA98, TA100 and TA1535) with and without metabolic activator. The product was tested in five concentrations: 0.001, 0.01, 0.1, 1.0 and 5.0 mg/plate. The results indicated Abamectin 1.8% EC did not exhibit mutagenic activity.

Mouse bone marrow micronucleus assay was carried out at the dose of 243.75 mg/kg bw. The results indicated that Abamectin 1.8% EC produced no evidence of mutagenic activity.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity:

Fish toxicity : LC₅₀ (96-hr) for carp (*Cyprinus carpio*) 2.145 mg/L.

Daphnia toxicity : EC₅₀ (48-hr) for *Daphnia magna* 0.01078 mg/L

Alga toxicity : EC₅₀ (72-hr) for algae (*Selenastrum capricornutum*) 0.1 mg/L (NOAEL)

Bird toxicity : LD₅₀ for Japanese quails (*Coturnix coturnix japonica*) 1659.59 mg/kg (male) and 1525.24 mg/kg (female).

Bee toxicity : Contact LD₅₀ (48-hr) for bee (*Apis mellifera*) 38.04 µg/bee.

Toxic to other organisms : LC₅₀ (7 d) for earthworm (*Eisenia foetida*) 214.25 mg/kg

12.2. Mobility

Binds tightly to soil, so the mobility is low.

12.3. Persistence and Degradability

Rapid degradation by soil microorganisms in soil.

12.4. Bioaccumulative Potential

No bioaccumulation in fish.

12.5. Other Adverse Effects

No information is available.

13. DISPOSAL CONSIDERATIONS

13.1. General Disposal Guidance:

Do not contaminate water, food, or feed by disposal. Chemical additions, processing or otherwise altering this material may make the

waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

13.2. Pesticide Disposal:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

13.3. Container Disposal:

Do not reuse containers. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

IMDG CLASSIFICATION

Proper shipping name : Pesticide, Liquid, Toxic, N.O.S.
(Abamectin)

UN number : 2902

Class : 6.1

Subclass : -

Packing group : III

Marine pollutant : Yes

15. REGULATORY INFORMATION

EC Number (EINECS): 265-610-3

Canadian Regulations:

WHMIS Classification: Not determined.

CERCLA Reportable Quantity (RO):

None

RCRA Classification:

Not Applicable

TSCA Status:

Exempt from TSCA

16. OTHER INFORMATION

16.1. Hazardous Rating Systems:

NFPA: Health= 2/Flammability= 3/Reactivity= 0

16.2. EC Classification (Assigned):

(According to Directive 2001/60/EC)

Risk phrase:

R10 Flammable

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrase:

S13 Keep away from food, drink and animal feedingstuffs.

S24 Avoid contact with skin

S26 In case of contact with eyes, rinse immediately with plenty of



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- water and seek medical advice
- S35 This material and its container must be disposed of in a safe way.
- S37/39 Wear suitable gloves and eye/face protection.
- S57 Use appropriate containment to avoid environmental contamination
- S60 This material and its container must be disposed of as hazardous waster
- S61 Avoid release to the environment. Refer to special instructions/safety data sheet

[END OF SDS]

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