

SAFETY DATA SHEET
Verkotel-Abamectin 18 g/L EC

Sinon Corporation SDS Data Bank No. AIF23-02EC12

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

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY
Identification:

Product name : Verkotel-Abamectin 18 g/L EC
Common name : Abamectin (BSI, draft E-ISO, ANSI); Abamectin ((f) draft F-ISO)
Chemical abstracts and name : mixture of Avermectin B_{1a} (at least 80%) and Avermectin B_{1b}
Empirical formula : C₄₈H₇₂O₁₄ (avermectin B_{1a}); C₄₇H₇₀O₁₄ (avermectin B_{1b})
Molecular weight : 873.1 (avermectin B_{1a}); 859.1 (avermectin B_{1b})
Uses : Insecticide/Miticide

Manufacturer:
Sinon Corporation

1F, No.101, Nanrong Road, Dadu District, Taichung City 43245, Taiwan

Tel: 886-4-26933841 Fax:886-4-26933713

Location of plant

No.101, Nanrong Road, Dadu District, Taichung City 43245, Taiwan

Tel: 886-4-26933841 Fax:886-4-26933713

Emergency Telephone:

886-4-26934261

2. HAZARDS IDENTIFICATION
Classification:

Flammable Category 4
 Acute oral toxicity Category 4
 Acute inhalation toxicity Category 4
 Eye irritation Category 2B
 Aquatic acute toxicity Category 1

Labelling:

Signal words:

Warning

Hazard statement:

H227 Combustible liquid
 H302 Harmful if swallowed
 H320 Cause eye irritation
 H332 Harmful if inhaled
 H400 Very toxic to aquatic life

Precautionary Statement
Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash hands 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.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P312 Call a POISON CENTER/doctor if you feel unwell.
 P330 Rinse mouth.
 P391 Collect spillage. Hazardous to the aquatic environment.
 P301+P312 IF SWALLOWED: call a POISON CENTER or

doctor/physician. IF you feel unwell.
 P303+P361 IF ON SKIN (or hair): Remove/Take off Immediately
 +P353 all contaminated clothing. Rinse SKIN with water/
 shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep
 comfortable for breathing.
 P305+P351 IF IN EYES: Rinse cautiously with water for several
 +P338 minutes. Remove contact lenses, if present and easy to
 do. Continue rinsing.
 P337+P313 IF eye irritation persists: Get medical advice/attention.
 P370+P378 In case of fire: Use dry chemical, foam, or CO₂
 extinguishing media for extinction.

Storage:

P403+P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/container in accordance with local / national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Percentage (w/v)
Abamectin	71751-41-2	1.8% min.
N-Methyl pyrrolidone (solvent)	872-50-4	0.9% max
Xylene (solvent)	1330-20-7	75% max.
Other ingredients	--	Balanced to 100%

4. FIRST AID MEASURE
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.
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.
Eyes 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.

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

Antidote:

There is no specific antidote if this product is ingested.

5. FIRE FIGHTING MEASURE

Extinguishing Media:

Use dry chemical, foam, or CO₂ extinguishing media.

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.

Special Protective Equipment for Fire-fighters:

Wear full protective clothing and self-contained breathing apparatus.

Hazardous Heating Decomposed Products:

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

6. ACCIDENTAL RELEASE MEASURES

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.

Environmental Precautions:

Do not allow wash water to contaminate water supplies.

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

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.

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

Exposure Limits:

OSHA/PEL: Not established

ACOM/TLV: Not established

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

This chemical should be handled only in a hood. Eye shields should be worn. Use appropriate OSHA/MSHA approved safety equipment. Avoid contact with skin, eyes and clothing. Keep tightly closed in a cool dry place. Store only with compatible chemicals.

Eye protection:

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

Skin protection:

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

Environmental Exposure Controls:

No special ventilation is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Slightly Yellow
Odor	: characteristic odor
pH	: 5.5~6.5
Melting Point	: Not applicable
Flash Point	: 45 °C
Explosive Properties:	Not explosive
Oxidizing Properties:	Not oxidizing
Vapor Pressure	: Not applicable
Specific gravity	: 0.9 (25°C)
Solubility	: Miscible with water
Log P_{ow}	: 4.4 ± 0.3 (Tech.)
Evaporation Rate	: Not Available

10. STABILITY AND REACTIVITY

Stability:

Stable under the normal temperatures and pressures.

Conditions to Avoid:

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

Materials to Avoid:

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

Hazardous Polymerization:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute oral LD₅₀	: 500 mg/kg for rat
Acute dermal LD₅₀	: >4000 mg/kg for rats
Acute inhalation LC₅₀	: >1.114 mg/l for rats (4 hours)
Eye irritation	: Slight-irritating on the eye (rabbits)
Skin irritation	: Non-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 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.

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.

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.

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

Ecotoxicity:

Bird toxicity : LD₅₀ for Japanese quails (*Coturnix coturnix japonica*) >2000 mg/kg

Fish toxicity : LC₅₀ (96-hr) for rainbow trout 0.0036 mg/l.

Daphnia toxicity : EC₅₀ (48-hr) 0.00012 mg/l.

Alga toxicity : EC₅₀ (96-hr) for algae (*pseudokirchneriella subcapitata*) >100 mg/L.

Bee toxicity : Contact LD₅₀ (48-hr) 0.0022 µg/bee.

Toxic to other organisms : LC₅₀ (7 d) for earthworm 33 mg/kg.

organisms

Mobility

Binds tightly to soil, so the mobility is low.

Persistence and Degradability

Rapid degradation by soil microorganisms in soil.

Bioaccumulative Potential

No bioaccumulation in fish.

Other Adverse Effects

No information is available.

13. DISPOSAL CONSIDERATIONS

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.

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.

13.1. 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 (Sea transport) CLASSIFICATION

Proper Shipping Name : Pesticide, Liquid, Toxic, N.O.S.
(Abamectin)

UN Number : 2902

Transport Class : 6.1

Packing Group : III

Marine pollutant : Yes

IATA (Air transport) CLASSIFICATION

Proper Shipping Name : Pesticide, Liquid, Toxic, N.O.S.
(Abamectin)

UN Number : 2902

Transport Class : 6.1

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

Although the information in this SDS was obtained from sources which we believe to be reliable, it cannot be guaranteed. In addition this information may be used in a manner beyond our knowledge or control. The information is therefore provided for advice purposes only, without any representation or warranty express or implied.

This SDS is just for ISRAEL PPIS registration requirement.