



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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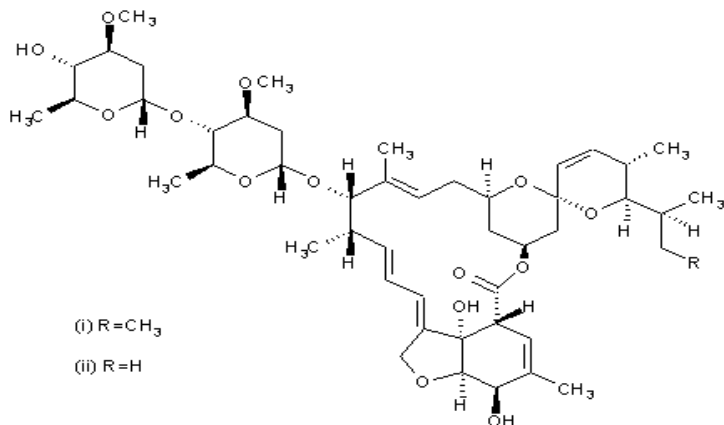
1. Chemical Product Identification

Product Name: Abamectin 95% TC

Molecular Formula: $C_{48}H_{72}O_{14}$ (avermectin B_{1a}) + $C_{47}H_{70}O_{14}$ (avermectin B_{1b})

Molecular Weight: 873.09; 859.06

Structural Formula:



Chemical Name: mixture of 80%
(2*aE*,4*E*,8*E*)-(5'*S*,6*S*,6'*R*,7*S*,11*R*,13*S*,15*S*,17*aR*,20*R*,20*aR*,20*bS*)-6'-[(*S*)-*sec*-butyl]-5',6,6',7,10,11,14,15,17*a*,20,20*a*,20*b*-dodecahydro-20,20*b*-dihydroxy-5',6,8,19-tetramethyl-17-oxospiro[11,15-methano-2*H*,13*H*,17*H*-furo[4,3,2-*pq*][2,6]benzodioxacyclooctadecin-13,2'-[2*H*]pyran]-7-yl]2,6-dideoxy-4-*O*-(2,6-dideoxy-3-*O*-methyl- α -*L*-arabino-hexopyranosyl)-3-*O*-methyl- α -*L*-arabino-hexopyranoside and 20%
(2*aE*,4*E*,8*E*)-(5'*S*,6*S*,6'*R*,7*S*,11*R*,13*S*,15*S*,17*aR*,20*R*,20*aR*,20*bS*)-5',6,6',7,10,11,14,15,17*a*,20,20*a*,20*b*-dodecahydro-20,20*b*-dihydroxy-6'-isopropyl-5',6,8,19-tetramethyl-17-oxospiro[11,15



-methano-2*H*,13*H*,17*H*-furo[4,3,2-*pq*][2,6]benzodioxacyclooctadecin-13,2'-[2*H*]pyran]-7-yl
2,6-dideoxy-4-*O*-(2,6-dideoxy-3-*O*-methyl- α -*L*-arabino-hexopyranosyl)-3-*O*-methyl- α -*L*-ara
bino-hexopyranoside

Form: Powder

Colour: White to light yellow

CAS No.: 71751-41-2

2. Composition / Information On Ingredients

| Composition | CAS No. | Content % |
|-------------------|------------|-----------|
| Abamectin | 71751-41-2 | 95.0 min |
| Other ingredients | | 5.0 max |

3. Hazards Identification

More important danger for the man: none

Dangers for the enviroment: high toxic to fish and bees

Physical-chemical dangers: none

4. First Aid Measures

Skin: wash thoroughly with soap and water.

Eyes: flush with plenty of water for at least 15 minutes.

Inhalation: move to fresh air.

Ingestion: Drink one ro two glasses of water and induce vomiting by touching the back of the throat with finger. Repeat until vomit fluid is clear.

5. Fire-Fighting Measures

Extinguishing media

To be used: Water, sand, foam, carbon dioxide, dry powder

Don't use: not applicable

Particular risk: not applicable

Measures of personal protection: safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

6. Accidental Release Measures



Personal cautions: Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

Cleaning methods

EX: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

7. Handling And Storage

Handling: Do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.

Storage: Store in a cool, dry place.

8. Exposure Controls/Personal Protection

Personal protective equipment

Respiratory protection: approved respirator

Protective gloves: rubber gloves

Eye protection: goggles

Industrial hygiene: not applicable

9. Physical and Chemical Properties

Melting point: 150-155°C

Density: 1.16 g/mL

Water solubility: 1.21 mg/L (20°C)

350g/L in toluene, 100 g/L in acetone, 70 g/L in isopropanol, 25 g/L in chloroform, 20 g/L in ethanol.

Vapour pressure: $<2 \times 10^{-4}$ mPa at 20°C

Octanol-water partition coefficient: LogP=4.4 (Ph 7, 20°C)

10. Stability and Reactivity

Conditions to avoid: fire, feed, food and beds of water

Products to avoid: strong oxidizing agents, alkalis and acids.

Thermal decomposition: not applicable



Hazardous decomposition products: not applicable

Hazardous reaction: none

11. Toxicological Information

Oral: Acute oral LD₅₀ for rats: 8.7 mg/kg

Dermal: Acute dermal LD₅₀ for rats: 330 mg/kg

Inhalation: Acute inhalation LC₅₀ for rats: 0.051 mg/l

Skin irritation: Mild skin irritation

Eye irritation: Slight to moderate eye irritation

Skin sensitization: Not a sensitizer to Guinea Pig

12. Ecological And Ecotoxicological Information

Birds:

Acute LC₅₀ for *Anas platyrhynchos* is less than 77 mg/kg

Fish:

Acute 96h LC₅₀ for *Oncorhynchus mykiss* is 0.0036 mg/L

Aquatic invertebrates:

Acute 48h EC₅₀ for *Daphnia pulex* is 0.0001 mg/L

Honeybees:

Contact acute 48h LD₅₀ is 0.0022 µg/bee

Earthworms:

Acute 14 day LC₅₀ is 33 mg/kg

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

Uncontaminated packaging may be treated as household waste.

14. Transport Information

Not applicable.



15. Regulatory Information

Not applicable.

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.