
1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Identification of the substance	: Achta 1 % EC (Azadirachtin 1 % EC)
Use of the substance	: Botanical Extract Insecticide
Manufacturer/supplier	: Tagros Chemicals India Limited
Address	: Tagros Chemicals India Ltd. "Jhaver Centre", Rajah Annamalai Building, IV Floor, 72, Marshalls Road, Egmore, Chennai-600 008, India
Emergency telephone number	: +91-44-42007400
Fax number	: +91-44-28587873
E-mail	: info@tagros.com

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW

Eyes	: May cause mild irritation
Skin	: May cause mild irritation
Ingestion	: May cause drowsiness.
Inhalation	: May be irritating to mucous membrane and excessive exposure may result in drowsiness.
Chronic Exposure	: Chronic exposure may cause various implications

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	EC No.	Classification	Con. % w/w
Azadirachtin 1 % EC	11141-17-6	-	-	1.0 % w/w
Neem oil				30.0 % w/w
N- Butanol (Solvent)				31% w/w
Butyl Acetate (Solvent)				23% w/w
Emulsifier – (Polyoxyethelene (20) Sorbitan Monoleate)				15% w/w

4. FIRST AID MEASURES

Contact with eyes	: Hold eye open and rinse slowly and gently with clean water for 15-20 minutes.
Contact with skin	: Remove contaminated clothes, wash contaminated skin and clothes with soap and plenty of water.
Ingestion	: If swallowed induce vomiting by tickling back of throat. Repeat vomit till fluid is clear but never when the patient is unconscious.
Inhalation	: If inhaled, remove to fresh air and keep at rest. Obtain medical aid if required.

5. FIRE FIGHTING MEASURES

Flash point	: >145°C
Extinguishing media	: If product is involved in a fire, foam, dry powder, sand.
Protective equipment for fire-fighting	: Wear protective clothing and face shields.
Unusual fire and Explosion hazards	: Not flammable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated, remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing.
Environmental precautions	: Keep people and animals away. Prevent entry into drains, sewers and watercourses.
Methods for cleaning up	: If material spilled or released, recover free product. Use absorbent material to minimize runoff mixed product.

7. HANDLING AND STORAGE

- Handling** : Wear chemically impervious gloves, safety glasses, goggles or face shield. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using the toilet. Remove personal protective equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Read all precautions and instructions on the label.
- Storage** : Store the material in a well ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco product in the storage area.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering controls** : Mechanical ventilation should be used when handling this product in closed spaces.
- Respiratory protection** : Use a NIOSH approved respirator in absence of mechanical ventilation.
- Hand protection** : Wear chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC).
- Eye protection** : Wear safety goggles with imperforated side shield and face shield.
- Skin protection** : Avoid contact with skin. Wear apron, boots and full protective suit.
- Environmental exposure controls** : Keep away from food, drink and animal feed stuff. This material and its container must be disposed off as hazardous waste. Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	: > 200°C
Specific Gravity	: 0.94 – 1.2
Water Solubility	: Emulsifiable in water
Molecular Weight	: 720 (Azadirachtin A) 662 (Azadirachtin B)
pH:	: 5 – 7
Odor:	: Characteristic Neem fragrant odor
Appearance:	: Brown viscous liquid
Empirical Formula:	: C ₃₅ H ₄₄ O ₁₆ (Azadirachtin A) C ₃₃ H ₄₂ O ₁₄ (Azadirachtin B)
Acidity	: 0.24

10. STABILITY AND REACTIVITY

Stability	: Stable for two years at ambient temperature
Conditions to avoid	: Avoid excessive heat and flame
Materials to avoid	: None under normal condition of use.
Incompatibility	: Avoid contact with strong acid, alkali and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Rat LD₅₀ oral, Rats	: >5000 mg/kg
Rat LD₅₀ dermal, Rabbits	: >2000 mg/kg
Rat LC₅₀ Inhalation, Rats	: 0.72 mg/L
Skin irritation	: Non-irritant to skin of rabbits

Skin sensitization	: Mild-sensitizer to skin of Guinea pigs
Long term studies	
Carcinogenicity	: Non-carcinogenic in rat and mice
Mutagenicity	: Non-mutagenic
Neurotoxicity	: No Neurotoxicity effect were observed
Reproductive toxicity	: NOAEL 5000 mg/kg

12. ECOLOGICAL INFORMATION

Effect on Honey Bees	: Harmless
Effect on Earthworm (LC50)	: > 1000 mg/kg - safe
Effect on predators	: Harmless
Hazard to soil Microflora	: Non Hazardous
Acute Daphnia Immobilisation Test (EC50)	: > 1000 mg/ltr- safeNOEL- 197.5 mg/ltr
Acute toxicity to fish-Rainbow Trout (LC50)	: 440 mg/ltr (24 hrs) 150 mg/ltr (96 hrs) NOEC50 mg/ltr
Algal Inhibition Test	: Non inhibitory/Non stimulantNOEC-22 mg/ltr
Metabolism in soil	: Rapid Decomposition in soil
Degradability in water	: Readily Biodegradable in water

13. DISPOSAL CONSIDERATIONS

Product disposal	: Do not contaminate water when cleaning with equipment or disposing of equipment with waters. Rinse water and diluted product may be disposed of on site or in an appropriate disposal facility.
Container disposal	: Lightly contaminated packaging may be buried away from inhabitation.

14. TRANSPORT INFORMATION

Shipping Name	: Neem Based Insecticide
Shipping Containers Markings	: Neem Based Insecticide
Shipping Container Labels	: Neem Based Insecticide
Special Instructions	: No special instruction on handling required
Flammability	: Non flammable
Transport by Air	: Safe for Air Transport

15. REGULATORY INFORMATION

Eco-friendly Neem Based Pesticide of Plant Origin: Non Hazardous Material

16. OTHER INFORMATION

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with. The requirement or recommendation of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.