Material Safety Data Sheet
- NeemAzal-T/S -

Trifolio-M GmbH

1. **IDENTIFICATION OF SUBSTANCE**

➢ **PRODUCT DETAILS**
Trade name NeemAzal-T/S

➢ **MANUFACTURER / SUPPLIER**
Trifolio-M GmbH, Herstellung und Vertrieb hochreiner Biosubstanzen; Dr.-Hans-Wilhelmi-Weg 1; D-35633 Lahnau Germany
Tel: (+49)(0)6441-20977-0
Fax: +49-6441-20977-50
email info@trifolio-m.de

➢ Informing department: Product Safety Department
Tel: (+49)(0)6441-20977-0

➢ **USE**
Insecticide, Plant Protection agent

2. **COMPOSITION / DATA ON COMPONENTS**

NeemAzal-T/S (Neem-seed-extract-formulation)
Leading compound Azadirachtin A (standardized to 1%)
CAS-No. (Azadirachtin A) 11141-17-6
MW (Azadirachtin A) 720,7
Formula (Azadirachtin A) C_{35}H_{44}O_{16}

3. **HAZARDS IDENTIFICATION**

Even natural materials and its formulations may be hazardous. Hence one has to handle such products with care especially while mixing and applying the formulation.

4. **FIRST AID MEASURES**

➢ After skin contact wash with soap and rinse with water
➢ After eye contact rinse with plenty of water, get medical attention if required
➢ Ingestion do not induce vomiting, call a physician
5. **FIRE FIGHTING MEASURES**

Extinguishing agents  
CO₂ or polymer foam  
Fire and explosion hazards  
CO, CO₂

6. **ACCIDENTAL RELEASE MEASURES**

- **PERSON RELATED SAFETY PRECAUTIONS**
  Wear safety glasses and rubber gloves.

- **MEASURES FOR ENVIRONMENTAL PROTECTION**
  Do not allow to enter the ground/soil and the ground water.

- **MEASURES FOR CLEANING / COLLECTING**
  Collect material, flush leftovers with water.

7. **HANDLING AND STORAGE**

- **HANDLING**
  No further requirements.

- **STORAGE**
  Keep cool and dry. Avoid direct sunlight.

8. **EXPOSURE CONTROLS AND PERSONAL PROTECTION**

- **CRITICAL VALUES**
  TLV (threshold limit value): not established

- **GENERAL PROTECTIVE AND HYGIENICS MEASURES**
  Keep away from food, feed and beverages. Wash hands after usage.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

- Form  
viscous liquid
- Colour  
brown
- Smell  
characteristic Neem odour
- Boiling point  
not established
- Flash point  
= 171°C
- Self-inflammability  
NeemAzal-T/S is not self igniting (own estimation)
- Danger of explosion  
NeemAzal-T/S is not explosive (own estimation)
- Vapour pressure  
3.6·10⁻¹¹ hPa (estimated for Azadirachtin A)
- Density  
0.98 g/ml
- Solubility in water  
emulsifiable in water
10. STABILITY AND REACTIVITY

➢ CONDITIONS TO AVOID
High temperature, sunlight.

➢ MATERIALS TO AVOID
Acids, alkalis and oxidizing agents.

➢ DANGEROUS PRODUCTS OF DECOMPOSITION
None.

11. TOXICOLOGICAL INFORMATION

➢ ACUTE TOXICITY
Oral - rat: \(\text{LD}_{50} > 5000 \text{ mg/kg}\)
Dermal - rat \(\text{LD}_{50} > 2000 \text{ mg/kg}\)
Inhalation - rat \(\text{LC}_{50} > 5.4 \text{ mg/l/4 h}\)

➢ PRIMARY IRRITANT EFFECT
Eye - rabbit may cause mild irritations
Skin - rabbit may cause mild irritations
Sensitization - guinea-pig no sensitizing effect

➢ CHRONIC TOXICITY
Micronucleus test - mouse negative
Mutagenic effects not observed

➢ REPRODUCTIVE TOXICITY
NeemAzal-F (5% Azadirachtin A) NOAEL = 5000 mg/kg diet

➢ CARCINOGENICITY
NeemAzal-F(5% Az.A) - mouse 80 weeks- not induced

12. ECOLOGICAL INFORMATION

Effect on honeybees harmless
Effect on earthworms harmless (> 1000 mg/kg)
Effect on predators harmless
Hazard to soil microflora not hazardous
Acute daphnia immobilization \(\text{EC}_{50} > 50 \text{ mg/l}\)
Acute fish toxicity (rainbow trout) \(\text{LC}_{50} = 160 \text{ mg/l (96 hrs)}\)

Algal inhibition test non inhibitory, non stimulant

Metabolism in soil rapid decomposition in soil
13. DISPOSAL CONSIDERATIONS

Disposal to be made according to official regulations. Do not allow material to contaminate the surrounding area and the ground water.

14. TRANSPORT INFORMATION

No hazardous material in regard to transportation regulations.

15. REGULATORY INFORMATION

➢ **DESIGNATION according to EC GUIDELINES**
   No hazardous material.

➢ **NATIONAL REGULATIONS**
   Water hazard class: non water hazardous material (on estimation)

➢ **FURTHER REGULATIONS**
   The guidelines for the prevention of accidents according to the local regulations have to be followed.

16. OTHER INFORMATION

➢ **ORIGIN OF THE ISSUED DATA**
   EID Parry Ltd. (India)
   Trifolio-M GmbH (Germany)

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.