

Safety data sheet according to regulation (EC) No. 1907/2006

Trade name: **NeemAzal®-T/S**

Creation Date: 10.05.2012

Version: 1.4 / EN

Revision Date: 16.09.2019

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Print Date: 14.05.2020

*** 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING**

1.1 Product identifier: NeemAzal®-T/S

1.2 Relevant identified uses of the substance or mixture and uses advised against
Insekticide and Acaricide

1.3 Details of the supplier of the safety data sheet

Distributing company in EU

Trifolio-M GmbH
Dr.-Hans-Wilhelmi-Weg 1
35633 Lahnau
Telefon: 06441-20977-0
Telefax: 06441-20977-50

1.4 Emergency telephone number: Deutsche Vergiftungszentrale Mainz
Phone: +496131-19240

*** 2. HAZARDS IDENTIFICATION**

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008:
Aquatic chronic 3; H412

2.2 Label elements

Labelling according to Regulation (EU) No. 1272/2008:

Hazard Statements:

H412 harmful to aquatic life with long lasting effects.
EUH208-147 contains Azadirachtin- may cause an allergic reaction
EUH401 To avoid risks to human health and the environment, comply with the instructions for use

For the wording of the listed hazard statements refer to section 16

Precautionary Statements:

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

Other hazards

None.

*** 3. COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substance

NeemAzal-T/S is a mixture.

*** 3.2 Mixture**

NeemAzal technical (Active ingredient)

Synonyms: Azadirachtin, Neem-kernel-extract; Leading compound: Azadirachtin A).

Concentration: 3-4%

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Classification according to Regulation (EC) No. 1272/2008:

Skin Sens. cat. 1; H317

Aquatic chronic 1; H410

Further information and wording of the H-Phrases can be found in section 16.

*** 4. FIRST AID MEASURES**

4.1 Description of first aid measures:

Remove the exposed individual from source of risk. Consult a physician. Show this safety data sheet to the physician in attendance.

If inhaled:

Move person in to fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact:

Wash off with soap and plenty of warm water. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 min. Consult a physician.

If swallowed:

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

NeemAzal®-TS consists of Azadirachtin. This may cause reversible skin sensitisation or allergic reactions.

4.3 Indication of any immediate medical attention and special treatment needed

If person is unconscious: Call an ambulance.

*** 5. FIREFIGHTING MEASURES**

5.1 Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media: Full water jet.

5.2 Special hazards arising from the substance or mixture

Carbon oxides.

5.3 Advice for firefighters

Keep containers cool with water spray. Stop influx of product. Wear self contained breathing apparatus for fire fighting if necessary.

*** 6. ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into environment must be avoided.

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6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Observe protective measures in sections 7 and 8.

*** 7. HANDLING AND STORAGE**

7.1 Precautions for safe handling

Safe use

Keep out of reach of children.

Avoid leaks, risk of slipping, use collection trays

Advice on general occupational hygiene:

- Avoid contact with skin and eyes.
- Do not eat, drink or smoke.
- Keep away from food, drinks and feeding stuff.
- Wash hands after use.
- Remove contaminated clothing and protective equipment before entering eating areas

Precautions against fire and explosion

Avoid formation of aerosols. Keep away from source of ignition - for example, welding equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid exposure to direct sunlight.

Storage category: 12

7.3 Specific end uses

NeemAzal-T/S is a plant protection product which is used as insecticide and acaricide.

*** 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

If handled appropriate exposure limit values (AGW [DE], OEL [EU]) are not exceeded.

8.2 Exposure controls

Appropriate engineering controls

Technical measures and the design of appropriate work processes go before the use of personal protective equipment; apply adequate ventilation.

Personal protective equipment

Personal protective equipment has to be selected specifically for the working place, depending on concentration and quantity of hazardous substance handled.

Respiratory protection

Not required

Skin protection

Hand protection

The selected protective gloves have to satisfy the specifications auf EU Directive 89/686/EEC and the standard EN 374 derived from it

Suitable gloves type for full contact:

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Nitril rubber, - thickness $\geq 0,5$ mm

Tightness of gloves shall be tested prior to use. Breakthrough time may vary, depending on glove brand and application conditions.

Contact glove manufacturer for information on permeability and Breakthrough time.

Eye/Face protection

Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166 (EU).

Environmental exposure controls

See section 6 and 7.

*** 9. PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties

Appearance	Viscous honey-like fluid
Odour	Typical Neem Odeur
Odour treshhold	No data available
pH-Value	7.00 ± 0.02
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	171°C
Evaporation rate	No data available
Flammability	No data available
Lower/upper explosive limit	Not explosive
Vapour pressure	3.6×10^{-13} Pa (geschätzt für Azadirachtin A)
Vapour density	No data available
Relative density	0,98g/l
Water solubility	Emulsifiable in water
Partition coefficient	$\log Pow$ (n-Octanol/Wasser) = 0,99 (Azadirachtin A)
Auto ignition temperature	> 390°C
Zersetzungstemperatur	No data available
Viscosity	281,4mm ² /s (20°C)
Explosive properties	No explosive properties
oxidizing properties	No oxidizing properties

10. Stability and Reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

NeemAzal-T/S is chemically stable under normal conditions (room temperature).

10.3 Possibility of hazardous reactions

If used appropriate no hazardous reactions are expected.

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10.4 Conditions to avoid

High temperatures and strong light sources. Keep away from sources of ignition.

10.5 Incompatible materials

Strong acids. Strong bases. Strong oxidizing or reducing agents.

10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

*** 11. TOXICOLOGICAL INFORMATION**

11.1 Acute toxicity

LD50 (oral, rat) > 5000 mg/kg

LD50 (dermal, rat) > 2000 mg/kg

Skin corrosion/irritation

Skin (rabbit): no irritations

For NeemAzal® technical corrosion effects are not known

Serious eye damage/eye irritation

Eye (rabbit): may cause mild irritation, classification criteria are not met

Respiratory or skin sensitization

Guinea pig: not sensitizing

Mutagenicity

Micronucleus test mouse: not mutagenic (NeemAzal®technical)

Mutagenic tests: not mutagenic (NeemAzal®technical)

Carcinogenicity

NeemAzal®-T/S is not cancerogenic.

Reproductive toxicity

Two generation reproduction study;

Rat: NOAEL=50mg/kgbw/d (NeemAzal®technical)

Specific target organ toxicity - single exposure

Rat NOAEL > 2380 mg/kgbw (NeemAzal®technical)

Specific target organ toxicity - repeated exposure

Rat (90 days) NOAEL = 32 mg/kgbw (liver) (NeemAzal®technical)

Aspiration hazard

No data available.

Potential health effects

To the best of our knowledge there are no potential health effects.

Signs and Symptoms of Exposure

To the best of our knowledge there are no known signs and symptoms of exposure.

*** 12. ECOLOGICAL INFORMATION**

12.1 Toxicity

Oncorhynchus mykiss

Acute toxicity

LC₅₀: 141mg/l (96h)

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Daphnia magna

Acute Immobilisation: $EC_{50} > 800\text{mg/l}$ (48h)

Reproduction: $NOEC = 3.4\text{ mg/l}$ (21d)

Chironomus riparius

Chronic toxicity $NOEC = 0.573\text{ mg/l}$

Scenedesmus subspicatus

Growth rate $E_rC_{50} = >2494\text{mg/l}$ (72h)

Apis mellifera:

Acute oral toxicity: $LD_{50} > 561\mu\text{g/bee}$ (

Acute contact toxicity: $LD_{50} > 2000\mu\text{g/bee}$

Eisenia fetida

Acute toxicity: $EC_{50} > 1000\text{ mg/kg}$

12.2 Persistence and degradability

Rapid degradation in water and soil; readily biodegradable.

12.3 Bioaccumulation potential

BCF Azadirachtin A: 1,38

12.4 Mobility in soil

No data available.

12.5 Results of PBT und vPvB assessment

NeemAzal®technical is neither persistence nor has it bioaccumulation potential.

12.6 Other adverse effects

Harmful to syrphid flies (*Episyrphus balteatus*), ladybird (*Coccinella septempunctata*), green lacewings (*Chrysoperla carnea*), predatory mites (*Ambylyseius cucumeris*)

*** 13. Disposal considerations**

13.1 Waste treatment methods

Offer surplus and non-recyclable solutions to a licensed disposal company in accordance with the Directive No. 2008/98/EC.

Waste code:

02 01 05.

Product and uncleaned packaging

Disposal In compliance with the regulation of special waste treatment.

Cleaned packaging

Empty containers should be recycled after washing out.

*** 14. TRANSPORT INFORMATION**

14.1 UN-Number

No dangerous goods: -

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14.2 UN proper shipping name

ADR/RID

No dangerous goods.

IMDG-Code / ICAO-TI / IATA-DGR

No dangerous goods.

14.3 Transport hazard class(es)

No dangerous goods, classification not required-

14.4 Packaging group

No dangerous goods, classification not required

14.5 Environmental hazards

ADR/RDI: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

See sections 6, 7 and 8

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

NeemAzal-T/S is only released in suitable containers in accordance with traffic laws.

*** 15. Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No. 1005/2009 (Substances that deplete the ozone layer):

Not applicable.

Regulation (EC) No. 850/2004 (Persistent organic pollutants):

Not applicable.

Regulation (EC) No. 649/2012 (Export and import of dangerous chemicals):

Not applicable.

Regulation (EC) No. 648/2004 on detergents

Not applicable.

National regulations

Water hazard class

WGK 1 (according AwSV Annex 1 No.4) .

Directive No. 2004/42/EC (Volatile organic compounds)

Not applicable.

Plant protection Act (PflSchG)

For use instructions refer to registration documents (RR 2011)

15.2 Chemical Safety Assessment

Chemical Safety Assessment has not been carried out with NeemAzal-T/S.

*** 16. OTHER INFORMATION**

Changes compared to prior versions

This MSDS replaces Version 1.3 / EN from 24.03.2015. Chapters with changes are marked with an asterisk (*).

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Bibliographical references and data sources

Regulations

REACH Regulation (EC) No. 1907/2006, last amended by Regulation (EU) No. 2019/957.
Regulation (EC) No. 1272/2008, last amended by Regulations (EC) 2019/521.

Wording of hazard statements which are not fully stated in section 2-15

Classification and labeling is in accordance with Regulation (EC) No. 1272/2008:

H317 – skin sensitization category 1; May cause an allergic skin reaction.

H410 – aquatic chronic category 1; very toxic to aquatic life with long lasting effects.

H412 - aquatic chronic category 3, harmful to aquatic life with long lasting effects.

Methods of evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 was used for the purpose of classification

Environmental hazards: assessment of test data (*Chironomus riparius*).

Abbreviations

ADR	European A greement concerning the International Carriage of D angerous Goods by R oad
CAS	C hemical A bstracts S ervices
EC	E ffective concentration E uropean community
EN	E uropean N orm
IATA-DGR	I nternational A ir T ransport A ssociation- D angerous G oods R egulation
ICAO-TI	I nternational C ivil A viation O rganization - T echnical I nstructions
IMDG-Code	I nternational M aritime C ode for D angerous G oods
LC	L ethal concentration
LD	L ethal dose
MARPOL	M aritime P ollution C onvention
OECD	O rganisation for E conomic C o-operation and D evelopment
PBT	p ersistent, b ioaccumulateable, t oxic
RID	I nternational R ule for T ransport of D angerous S ubstances by R ailway
UN	U nited N ations (Vereinte Nationen)
VOC	V olatile o rganic c ompounds
vPvB	v ery p ersistent, v ery b ioaccumulateable

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall only be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Trifolio-M GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.

This safety data sheet is in accordance with Regulation (EC) No. 1907/2006 last amended by Regulation (EC) No. 2019/957.