

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**NATURAL EUGENOL**

Revision date: 14.06.2023

Product code: 246700

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

NATURAL EUGENOL

Substance name: NATURAL EUGENOL  
REACH Registration Number: 01-2119971802-33-XXXX  
CAS No: 97-53-0  
EC No: 202-589-1

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

**1.3. Details of the supplier of the safety data sheet**

Company name: Axxence Aromatic GmbH  
Street: Tackenweide 28  
Place: D-46446 Emmerich am Rhein  
Telephone: + 49 2822 68561 0  
Telefax: + 49 2822 68561 39  
e-mail: info@axxence.com  
Contact person: Andreas Goertz  
Telephone: + 49 2822 68561 37  
e-mail: andreas.goertz@axxence.com  
Internet: www.axxence.de  
Responsible Department: QM - Regulatory Affairs

**1.4. Emergency telephone number:**

+49 2822 68561 99

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Signal word:** Warning**Pictograms:****Hazard statements**

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

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|                |  |
|----------------|--|
|                | protection.  |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P501           | Dispose of contents/container to .   |

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

|                   |          |
|-------------------|----------|
| Sum formula:      | C10H12O2 |
| Molecular weight: | 164,21   |

#### Hazardous components

| CAS No  | Chemical name   |          |                       | Quantity |
|---------|---|----------|-----------------------|----------|
|         | EC No   | Index No | REACH No              |          |
|         | Classification (Regulation (EC) No 1272/2008)             |          |                       |          |
| 97-53-0 | NATURAL EUGENOL   |          |                       | 100 %    |
|         | 202-589-1   |          | 01-2119971802-33-XXXX |          |
|         | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317 |          |                       |          |

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

| CAS No  | EC No                                    | Chemical name   | Quantity |
|---------|--|-----------------|----------|
|         | Specific Conc. Limits, M-factors and ATE |                 |          |
| 97-53-0 | 202-589-1                                | NATURAL EUGENOL | 100 %    |
|         | oral: LD50 = >2000 mg/kg                 |                 |          |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

##### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

##### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

##### After ingestion

Rinse mouth immediately and drink 1 glass of water.

#### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

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#### 5.1. Extinguishing media

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.  
Extinguishing powder / Foam / Carbon dioxide (CO<sub>2</sub>) / Water spray jet

##### **Unsuitable extinguishing media**

Full water jet

#### 5.2. Special hazards arising from the substance or mixture

Non-flammable.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.  
Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### **General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### **For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

##### **Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### **Advice on safe handling**

No special measures are necessary.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

##### **Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### **Requirements for storage rooms and vessels**

Keep container tightly closed.

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#### Hints on joint storage

No special measures are necessary.

#### 7.3. Specific end use(s)

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL/DMEL values

| CAS No                   | Name of agent   |          |                        |
|--------------------------|-----------------|----------|------------------------|
| DNEL type                | Exposure route  | Effect   | Value                  |
| 97-53-0                  | NATURAL EUGENOL |          |                        |
| Worker DNEL, long-term   | inhalation      | systemic | 21,2 mg/m <sup>3</sup> |
| Worker DNEL, long-term   | dermal          | systemic | 6 mg/kg bw/day         |
| Consumer DNEL, long-term | inhalation      | systemic | 5,22 mg/m <sup>3</sup> |
| Consumer DNEL, long-term | dermal          | systemic | 3 mg/kg bw/day         |
| Consumer DNEL, long-term | oral            | systemic | 3 mg/kg bw/day         |

##### PNEC values

| CAS No                             | Name of agent   |  |
|------------------------------------|-----------------|--|
| Environmental compartment          | Value           |  |
| 97-53-0                            | NATURAL EUGENOL |  |
| Freshwater                         | 0,202 mg/l      |  |
| Freshwater (intermittent releases) | 0,0113 mg/l     |  |
| Marine water                       | 0,02 mg/l       |  |
| Freshwater sediment                | 14,488 mg/kg    |  |
| Marine sediment                    | 1,449 mg/kg     |  |
| Soil                               | 0,015 mg/kg     |  |

#### 8.2. Exposure controls



#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: goggles.

##### Hand protection

Suitable gloves type Disposable gloves + NBR (Nitrile rubber)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Use of protective clothing.

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#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |        |                        |
|---|--------|------------------------|
| Physical state:   | Liquid |                        |
| Colour:   |        |                        |
| Melting point/freezing point:                             |        | -7,5 °C                |
| Boiling point or initial boiling point and boiling range: |        | 248 °C                 |
| Flammability:   |        | not determined         |
| Lower explosion limits:                                   |        | not determined         |
| Upper explosion limits:                                   |        | not determined         |
| Flash point:  |        | 124 °C                 |
| Auto-ignition temperature:                                |        | 380 °C                 |
| Decomposition temperature:                                |        | not determined         |
| pH-Value:   |        | not determined         |
| Water solubility:<br>(at 20 °C)                           |        | 1,15 g/L               |
| Solubility in other solvents                              |        | not determined         |
| Partition coefficient n-octanol/water:                    |        | 1,83                   |
| Vapour pressure:<br>(at 25 °C)                            |        | 0,04 hPa               |
| Density (at 20 °C):                                       |        | 1,07 g/cm <sup>3</sup> |
| Relative vapour density:                                  |        | not determined         |

#### 9.2. Other information

##### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive. not explosive according to EU A.14

Oxidizing properties

The product is not: oxidising.

##### Other safety characteristics

|                                    |  |                |
|------------------------------------|--|----------------|
| Evaporation rate:                  |  | not determined |
| Solvent content:                   |  | 0%             |
| Solid content:                     |  | 0%             |
| Viscosity / dynamic:<br>(at 25 °C) |  | 8,39 mPa·s     |

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4. Conditions to avoid

none

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#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Acute toxicity

Based on available data, the classification criteria are not met.

| CAS No  | Chemical name   |                  |         |                    |          |  |
|---------|-----------------|------------------|---------|--------------------|----------|--|
|         | Exposure route  | Dose             | Species | Source             | Method   |  |
| 97-53-0 | NATURAL EUGENOL |                  |         |                    |          |  |
|         | oral            | LD50 >2000 mg/kg | Rat     | REACH registration | OECD 423 |  |

##### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

##### Sensitising effects

May cause an allergic skin reaction. (NATURAL EUGENOL)

##### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

##### STOT-single exposure

Based on available data, the classification criteria are not met.

##### STOT-repeated exposure

Based on available data, the classification criteria are not met.

##### Aspiration hazard

Based on available data, the classification criteria are not met.

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

No information available.

##### Further information

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008).

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

| CAS No  | Chemical name            |                |           |                                |                    |          |
|---------|--------------------------|----------------|-----------|--------------------------------|--------------------|----------|
|         | Aquatic toxicity         | Dose           | [h]   [d] | Species                        | Source             | Method   |
| 97-53-0 | NATURAL EUGENOL          |                |           |                                |                    |          |
|         | Acute fish toxicity      | LC50 13 mg/l   | 96 h      | Danio rerio (zebrafish)        | REACH registration | OECD 203 |
|         | Acute algae toxicity     | ErC50 24 mg/l  | 72 h      | Desmodesmus subspicatus        | REACH registration | OECD 201 |
|         | Acute crustacea toxicity | EC50 1,13 mg/l | 48 h      | Daphnia magna (Big water flea) | REACH registration | OECD 202 |

#### 12.2. Persistence and degradability

The product has not been tested.

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| CAS No  | Chemical name                                       |       |    |                    |
|---------|---|-------|----|--------------------|
|         | Method  | Value | d  | Source             |
|         | Evaluation  |       |    |                    |
| 97-53-0 | NATURAL EUGENOL                                     |       |    |                    |
|         | EU Method C.4-E                                     | 82%   | 28 | REACH registration |
|         | Readily biodegradable (according to OECD criteria). |       |    |                    |
|         | EU Method C.4-E                                     | 66%   | 14 | REACH registration |
|         | Readily biodegradable (according to OECD criteria). |       |    |                    |
|         | EU Method C.4-E                                     | 50%   | 7  | REACH registration |
|         | Readily biodegradable (according to OECD criteria). |       |    |                    |

#### **12.3. Bioaccumulative potential**

The product has not been tested.

#### **Partition coefficient n-octanol/water**

| CAS No  | Chemical name   | Log Pow |
|---------|-----------------|---------|
| 97-53-0 | NATURAL EUGENOL | 1,83    |

#### **12.4. Mobility in soil**

The product has not been tested.

#### **12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

The product has not been tested.

#### **12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### **12.7. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **List of Wastes Code - residues/unused products**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

##### **List of Wastes Code - used product**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

##### **List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

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|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | No dangerous good in sense of this transport regulation. |
| <b><u>14.2. UN proper shipping name:</u></b>    | No dangerous good in sense of this transport regulation. |
| <b><u>14.3. Transport hazard class(es):</u></b> | No dangerous good in sense of this transport regulation. |
| <b><u>14.4. Packing group:</u></b>              | No dangerous good in sense of this transport regulation. |

#### Inland waterways transport (ADN)

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | No dangerous good in sense of this transport regulation. |
| <b><u>14.2. UN proper shipping name:</u></b>    | No dangerous good in sense of this transport regulation. |
| <b><u>14.3. Transport hazard class(es):</u></b> | No dangerous good in sense of this transport regulation. |
| <b><u>14.4. Packing group:</u></b>              | No dangerous good in sense of this transport regulation. |

#### Marine transport (IMDG)

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | No dangerous good in sense of this transport regulation. |
| <b><u>14.2. UN proper shipping name:</u></b>    | No dangerous good in sense of this transport regulation. |
| <b><u>14.3. Transport hazard class(es):</u></b> | No dangerous good in sense of this transport regulation. |
| <b><u>14.4. Packing group:</u></b>              | No dangerous good in sense of this transport regulation. |

#### Air transport (ICAO-TI/IATA-DGR)

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | No dangerous good in sense of this transport regulation. |
| <b><u>14.2. UN proper shipping name:</u></b>    | No dangerous good in sense of this transport regulation. |
| <b><u>14.3. Transport hazard class(es):</u></b> | No dangerous good in sense of this transport regulation. |
| <b><u>14.4. Packing group:</u></b>              | No dangerous good in sense of this transport regulation. |

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2004/42/EC (VOC): 100 % (1070 g/l)

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,11,13,15,16.



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**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
assessment, chapter R.20 (Table of terms and abbreviations).

**Relevant H and EUH statements (number and full text)**

|      |                                      |
|------|--------------------------------------|
| H315 | Causes skin irritation.              |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation.       |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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#### Identified uses

| No | Short title | LCS | SU | PC | PROC | ERC | AC | TF | Specification |
|----|-------------|-----|----|----|------|-----|----|----|---------------|
| 1  |             | -   | 4  | 28 | -    | -   | -  | -  | Flavour       |

LCS: Life cycle stages

PC: Product categories

ERC: Environmental release categories

TF: Technical functions

SU: Sectors of use

PROC: Process categories

AC: Article categories