

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Nelkenöl

Revision date: 11.03.2024

Product code: KSO-005

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Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P261	Avoid breathing vapours/spray.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P405	Store locked up.
P501	Do not discard content with household waste and forward for disposal according to regional/national guidelines.

2.3. Other hazards

This substance does not meet the criteria for classification as PBT or vPvB.
 This substance does not have endocrine disrupting properties with respect to humans.
 This substance does not have endocrine disrupting properties with respect to non-target organisms.

Special danger of slipping by leaking/spilling product.

SECTION 3: Composition/information on ingredients

3.1. Substances

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
8000-34-8	Clove Oil (EUGENIA CARYOPHYLLUS LEAF OIL)			100 %
	616-772-2			
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3, Asp. Tox. 1; H315 H319 H317 H335 H304			

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		
8000-34-8	616-772-2	Clove Oil (EUGENIA CARYOPHYLLUS LEAF OIL)	100 %
	oral: LD50 = 2650 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.
 When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of breathing difficulties administer oxygen. Call a physician immediately.

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. Call a physician immediately.

After contact with eyes

IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to

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do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately. Observe risk of aspiration if vomiting occurs.

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

Irritating to eyes, respiratory system and skin.
Allergic reactions
vomiting. Nausea. gastro-intestinal ailment.
Risk of aspiration pneumonia.
Coughing. Dyspnoea. Pulmonary oedema

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

Treat symptomatically.
Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.
Carbon dioxide (CO₂). Extinguishing powder.
Fight larger fire with water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Vapours can form explosive mixtures with air. Danger of bursting container.
In case of fire or overheating hazardous fumes may develop.
Carbon monoxide. Carbon dioxide. Irritating/poisonous gasses and vapours

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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.

For emergency responders

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
In case of leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up**For containment**

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

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

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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**

Provide adequate ventilation. Avoid the formation of aerosol. Do not breathe gas/fumes/vapour/spray. Use personal protection equipment.

Do not empty into drains; dispose of this material and its container in a safe way.

Advice on protection against fire and explosion

Keep away from heat.

Take precautionary measures against static discharges.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. 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 only in the original container in a cool, well-ventilated place.

Keep container tightly closed. Keep locked up. Provide adequate ventilation as well as local exhaust at critical locations.

Hints on joint storage

Store separately from foodstuff.

Do not store together with: Oxidizing agents, strong.

Further information on storage conditions

Keep away from heat. Protect from direct sunlight.

7.3. Specific end use(s)

Laboratory chemicals

Equipment maintenance

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

Currently there are no further exposure limits available.

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Eye glasses with side protection

Wear additional facial protection if facial contact with this substance is possible through splashing, spraying or material in the air.

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Hand protection

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.

Tested protective gloves are to be worn:

Suitable material:

NR (Natural rubber (Caoutchouc), Natural latex).

Thickness of glove material: >1 mm

Butyl rubber.

Thickness of glove material: >0,3 mm

penetration time (maximum wearing period): > 480 min;

Unsuitable material: Natural fibres (e.g. cotton). leather.

Skin protection

Use of protective clothing. Chemical resistant suit. Apron.

Chemical resistant safety shoes.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Respiratory protection necessary at: aerosol or mist formation
short-term

Filtering device (full mask or mouthpiece) with filter: A (Colour: brown; Initial boiling point and boiling range: > 65 °C)

long-term:

Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	colourless to yellowish	
Odour:	characteristic	
Melting point/freezing point:		no data available
Boiling point or initial boiling point and boiling range:		approx. 250 °C
Flammability:		no data available
Lower explosion limits:		no data available
Upper explosion limits:		no data available
Flash point:		no data available
Auto-ignition temperature:		no data available
Decomposition temperature:		no data available
pH-Value:		no data available
Viscosity / kinematic:		no data available
Water solubility:		insoluble
Solubility in other solvents		
Methanol., Diethyl ether		
Dissolution rate:		no data available
Partition coefficient n-octanol/water:		no data available
Dispersion stability:		no data available

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Vapour pressure:	no data available
Vapour pressure:	no data available
Density:	no data available
Relative density:	1,045
Bulk density:	no data available
Relative vapour density:	no data available
Particle characteristics:	no data available no data available

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties	no data available
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	no data available
Gas:	no data available
Oxidizing properties	
no data available	

Other safety characteristics

Evaporation rate:	no data available
Solid content:	no data available
Sublimation point:	no data available
Softening point:	no data available
Pour point:	no data available
Viscosity / dynamic:	no data available
Flow time:	no data available

Further Information

no data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reaction with: Oxidizing agents, strong.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

In case of fire or overheating hazardous fumes may develop.
Carbon monoxide. Carbon dioxide. Irritating/poisonous gasses and vapours

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.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
8000-34-8	Clove Oil (EUGENIA CARYOPHYLLUS LEAF OIL)				
	oral	LD50 2650 mg/kg	Rat		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Clove Oil (EUGENIA CARYOPHYLLUS LEAF OIL))

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (Clove Oil (EUGENIA CARYOPHYLLUS LEAF OIL))

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

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

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

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 data available.

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.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Contaminated packaging

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

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SECTION 14: Transport information**Land transport (ADR/RID)**

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

Inland waterways transport (ADN)

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

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No special precautions known.

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

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

Additional information

Regulation (EC) No. 648/2004 [Detergents regulation]: not applicable

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No 2019/1021 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

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Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D):

2 - obviously hazardous to water

Additional information

Observe in addition any national regulations!

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): 1,2,6,7,9,10.

Version 1,00 - 03.07.2019 - first creation

Version 1,01 - 11.03.2024 - General update

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Abbreviations and acronyms

Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
BlmSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act
CAS: Chemical Abstracts Service
DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)
EC: Effective Concentration
EG: European Community (Europäische Gemeinschaft)
EN: European Norm
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
ISO: Norm of the International Standards Organization
CLP: Classification, Labeling, Packaging
IUCLID: International Uniform Chemical Information Database
LC: Lethal concentration
LD: Lethal dose
log Kow: Octanol/water partition coefficient
MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships
OECD: Organisation for Economic Co-operation and Development
PBT: Persistent, bio-cumulative, toxic
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
TRGS: Technische Regeln für Gefahrstoffe
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bio-cumulative
VwVwS: Administrative Regulation for Water Pollutants
WGK: German Water Hazard Class
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
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
TLV: Threshold Limiting Value
STOT: Specific Target Organ Toxicity
AwSV: Ordinance on Installations for Handling Substances Hazardous to Water

Relevant H and EUH statements (number and full text)

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

asseso AG, Ottostraße 1, 63741, Aschaffenburg, Germany



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