



Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Clove bud CO₂-se extract (organic), type no. 035.004

Print date : 06.10.2008

Page 1 of 5

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Clove bud CO₂-se extract (organic), type no. 035.004

Further product name

Gewürznelken CO₂-se Extrakt (ökol.), Typ Nr. 035.004

Clove bud CO₂-se extract (organic), type no. 035.004

Use of the substance/preparation

In food industry and in pharmaceuticals

Company/undertaking identification

Company name :	Flavex Naturextrakte GmbH	
Street :	Nordstr. 7	
Place :	D-66780 Rehlingen-Siersburg	
Telephone :	+49 (0)6835/9195-0	Telefax : +49 (0)6835/919595
Contact person :	Mr. J. Sewerin	
e-mail :	info@flavex.com	
Internet :	www.flavex.com	
Inquiry office :	Poison information center Freiburg	
Emergency telephone :	+49 (0)761/19240	

2. Hazards identification

Classification

Indications of danger : Harmful, Irritant

R-phrases :

Harmful if swallowed.

Irritating to eyes, respiratory system and skin.

May cause sensitization by inhalation and skin contact.

Harmful: may cause lung damage if swallowed.

Explication of special hazards for human health and environment

Special skid risk by leaking/spilling product.

Contains < 57 % eugenol [CAS-no. 97-53-0]
< 0,4 % isoeugenol [CAS-no. 97-54-1]

May cause allergic reactions.

3. Composition/information on ingredients

Chemical characterization

INCI Name (CTFA): Eugenia Caryophyllus Flower Extract; CAS-no. 84961-50-2 EC-no.

(EINECS/ELINCS): 284-638-7

essential oil content: 80 - 95 % with a.o. eugenole, Eugenyl acetate, caryophyllene [CAS-no. 87-44-5],

Humulene

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
202-589-1	97-53-0	Eugenol	40 - 60 %	Xn, Xi R22-36/37/38-42/43
202-235-6	93-28-7	euygenyl acetate	15 - 30 %	Xn, Xi R22-38

Full text of each relevant R phrase can be found in heading 16.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Clove bud CO₂-se extract (organic), type no. 035.004

Print date : 06.10.2008

Page 2 of 5

Further Information

no solvent residues

4. First aid measures

General information

Consult physician if problems persist.

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: water and soap.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

After ingestion

Rinse mouth immediately and drink large quantities of water. Consult physician.

5. Fire-fighting measures

Suitable extinguishing media

foam, CO₂, powder

Extinguishing media which must not be used for safety reasons

water stream

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

formation of dangerous fumes possible

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions

Avoid contact with skin and eyes, concentrated extracts should not be swallowed.

Environmental precautions

keep away from canalisation, waterway, groundwater

Methods for cleaning up/taking up

Remove mechanically, placing in appropriate containers for disposal.

7. Handling and storage

Handling

Advice on safe handling

Avoid contact with skin and eyes, concentrated extracts should not be swallowed.
wear splash goggles and oilresistent gloves

Storage

Requirements for storage rooms and vessels

no special measures necessary

Further information on storage conditions

keep dark and dry, avoid heat

Storageclass (VCI) :

10

8. Exposure controls/personal protection

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Clove bud CO₂-se extract (organic), type no. 035.004

Print date : 06.10.2008

Page 3 of 5

Exposure limit values

Exposure controls

Protective and hygiene measures

remove contaminated clothes

Respiratory protection

do not breathe vapour / aerosol

Hand protection

When using chemical substances protective gloves against chemicals must be worn with the CE-label including the four control digits. German Industry Standards / EN standards: EN 374

Eye protection

wear splash goggles

Skin protection

wear clothing as usual in chemical industry

9. Physical and chemical properties

General information

Physical state : liquid oil
 Colour : yellow
 Odour : characteristic

Important health, safety and environmental information

Changes in the physical state

Flash point :	> 61 °C	method Abel-Pensky
Density (at 20 °C) :	> 1,00 g/cm ³	pycnometer
Water solubility :	insoluble	
Solubility in other solvents :	good soluble in fat phases	

Solvent content

no solvent residues

Test method

10. Stability and reactivity

Conditions to avoid

heat, open flame, sun light

Hazardous decomposition products

none - when carefully used

Additional information

no decomposition in the application field

11. Toxicological information

Specific effects in experiment on an animal

LD 50 / LC 50	Component	Type	Value	Species
LD50	Eugenol	oral	1930 mg/kg	rat.
LD50	Eugenol	oral	3000 mg/kg	mouse.
LD50	Eugenol	oral	2130 mg/kg	Guinea-pig.
LD50	Eugenyl acetate	oral	1670 mg/kg	rat.

Corrosive and irritant effects

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Clove bud CO₂-se extract (organic), type no. 035.004

Print date : 06.10.2008

Page 4 of 5

RTECS data: Eugenol (RTECS-no. SJ4375000)
Irritant effect on the skin: Human. 40 mg 48 h moderate irritant effect
Irritant effect on the skin: rabbit. 100 mg 24 h strong irritant effect
Eugenyl acetate (RTECS-no. SJ4550000)
Irritant effect on the skin: rabbit. 500 mg 24 h moderate irritant effect

Empirical data on effects on humans

Irritating to eyes, respiratory system and skin

Further information

Acute toxicity, irritation of the skin and mucous mebrane, and mutagenic potential of the preparation assessed by the manufacturer on the basis of the data sheets available on the main components. Information gaps exist on some of the main individual components. However, according to the experience of the manufacturer, no dangers above and beyond those on the product label are to be expected.

12. Ecological information

Ecotoxicity

No data for ecological evaluation on hand Under appropriate use there are no ecological problems to expect

13. Disposal considerations

Advice on disposal

in accordance with valid regulations

Waste disposal number of waste from residues/unused products

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

Contaminated packaging

in accordance with valid regulations

14. Transport information

Further Information

no dangerous good in the sense of the transport regulations

15. Regulatory information

Labelling

Danger symbols : Xn - Harmful



Xn - Harmful

Hazardous component(s) to be indicated on label

Eugenol
euygenyl acetate

R phrases

22 Harmful if swallowed.
36/37/38 Irritating to eyes, respiratory system and skin.
42/43 May cause sensitization by inhalation and skin contact.
65 Harmful: may cause lung damage if swallowed.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Clove bud CO₂-se extract (organic), type no. 035.004

Print date : 06.10.2008

Page 5 of 5

S phrases

- 23 Do not breathe vapour/aerosol .
- 24 Avoid contact with skin.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 37 Wear suitable gloves.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Additional advice on labelling

The classification was undertaken in accordance with the method of calculation governed by the preparation regulations (1999/45/EC).

National regulatory information

Employment restrictions : Observe employment restrictions for young people.
Water contaminating class : 2 - water contaminating

16. Other information

Full text of R-phrases referred to under sections 2 and 3

- 22 Harmful if swallowed.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 38 Irritating to skin.
- 42/43 May cause sensitization by inhalation and skin contact.
- 65 Harmful: may cause lung damage if swallowed.

Further Information

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

Changes

Reason for revision: general revision of whole document