

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 1 of 8

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

NATURAL GERANIOL

Substance name: NATURAL GERANIOL  
 CAS No: 106-24-1

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### Use of the substance/mixture

For Flavour use for food and feed only

##### 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

###### UN GHS (ST/SG/AC.10/11/Rev.8)

Hazard categories:  
 Acute toxicity: Acute Tox. 5  
 Skin corrosion/irritation: Skin Irrit. 2  
 Serious eye damage/eye irritation: Eye Dam. 1  
 Respiratory or skin sensitisation: Skin Sens. 1  
 Hazardous to the aquatic environment: Aquatic Acute 3  
 Hazard Statements:  
 May be harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye damage.  
 May cause an allergic skin reaction.  
 Harmful to aquatic life.

##### 2.2. Label elements

###### UN GHS (ST/SG/AC.10/11/Rev.8)

Signal word: Danger

Pictograms:



###### Hazard statements

H303	May be harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 2 of 8

H402 Harmful to aquatic life.

#### 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.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P301+P317 IF SWALLOWED: Get medical help.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P333+P317 If skin irritation or rash occurs: Get medical help.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P317 Get medical help.  
 P501 Dispose of contents/container to .

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: C10 H18 O

Molecular weight: 154,25

#### Hazardous components

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.8))	
106-24-1	NATURAL GERANIOL	100 %
	Acute Tox. 5, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 3; H303 H315 H318 H317 H402	

### 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

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

##### After ingestion

Observe risk of aspiration if vomiting occurs. 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

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 3 of 8

#### 5.1. Extinguishing media

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

Co-ordinate fire-fighting measures to the fire surroundings.  
Carbon dioxide (CO<sub>2</sub>) / Extinguishing powder / alcohol resistant foam

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

Water

#### 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**

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

##### **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.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 4 of 8

#### Hints on joint storage

No special measures are necessary.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 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

Suitable eye protection: goggles.

##### 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.

##### Skin protection

Use of protective clothing.

##### 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:	-15 °C
Boiling point or initial boiling point and boiling range:	229 °C
Flammability	
Solid/liquid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	108 °C
Auto-ignition temperature:	250 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic: (at 20 °C)	9,23 mm <sup>2</sup> /s
Water solubility: (at 20 °C)	0,1 g/L
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	2,6

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 5 of 8

Vapour pressure: (at 20 °C)	0,3 hPa
Density (at 20 °C):	0,89 g/cm <sup>3</sup>
Relative vapour density: (at 20 °C)	5,33

#### 9.2. Other information

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

Explosive properties

not explosive according to EU A.14

Oxidizing properties

The product is not: oxidising.

##### Other safety characteristics

Evaporation rate: not determined

Solid content: not determined

Viscosity / dynamic:  
(at 20 °C) 8,21 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

#### 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

May be harmful if swallowed.

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
106-24-1	NATURAL GERANIOL					
	oral	LD50 mg/kg	3600	Rat	REACH registration	
	dermal	LD50 mg/kg	>5000	Rabbit	REACH registration	

##### Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

##### Sensitising effects

May cause an allergic skin reaction. (NATURAL GERANIOL)

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 6 of 8

#### 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

#### Other information

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
106-24-1	NATURAL GERANIOL					
	Acute fish toxicity	LC50 22 mg/l	96 h	Danio rerio (zebrafish)	REACH Registration	OECD 203
	Acute algae toxicity	ErC50 mg/l 13,1	72 h	Desmodesmus subspicatus	REACH Registration	OECD 201
	Acute crustacea toxicity	EC50 mg/l 10,8	48 h	Daphnia magna (Big water flea)	REACH Registration	OECD 202
	Acute bacteria toxicity	(EC50 70 mg/l)	0,5 h	Activated sludge	REACH Registration	OECD 209

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
106-24-1	NATURAL GERANIOL			
	OECD 301A	90-100%	3	
	Readily biodegradable			

### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-24-1	NATURAL GERANIOL	2,6

### 12.4. Mobility in soil

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.

## Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.8)

### NATURAL GERANIOL

Revision date: 21.11.2022

Product code: 250710WW

Page 7 of 8

#### 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.

##### Contaminated packaging

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

### SECTION 14: Transport information

#### Marine transport (IMDG)

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

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

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

#### National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

### SECTION 16: Other information

#### 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

**Safety Data Sheet**

according to UN GHS (ST/SG/AC.10/11/Rev.8)

**NATURAL GERANIOL**

Revision date: 21.11.2022

Product code: 250710WW

Page 8 of 8

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).

**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.