



PHOENIX

Safety Data Sheet

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Product code EUC0023

Product name EUCALYPTOL - REACH REGISTERED

Issue date 15-Jan-2015

Revision date 21-Feb-2020

Version 2

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

1.1. Product Identifier

| | |
|----------------------------------|-----------------------------------|
| Product code | EUC0023 |
| <i>Product name</i> | EUCALYPTOL - REACH REGISTERED |
| REACH registration number | 01-2119967772-24-XXXX |
| EC No. | 207-431-5 |
| CAS No | 470-82-6 |
| Chemical Name | 1,8-epoxy-p-menthane |
| Synonyms | 1,8-cineole |
| Pure substance/mixture | Substance |
| <i>Contains Eucalyptol</i> | |
| Formula | C ₁₀ H ₁₈ O |
| Molecular weight | 154.25 |

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

| | |
|------------------------------------|--------------|
| Sold to the general public? | No |
| Recommended Use | Industry Use |

1.3. Details of the supplier of the safety data sheet

Supplier

Phoenix Aromas Europe Ltd.
Unit 2A Wyncolls Road
Severells Business Park
Colchester, Essex
CO4 9HU
Tel: (+44) 208 532 1022

For further information, please contact

| | |
|-----------------------|-------------------------|
| Contact Point | Fred Wise |
| E-mail address | fwise@phoenixaromas.com |

1.4. Emergency telephone number

| | |
|---------------------|----------|
| Emergency telephone | CHEMTREC |
|---------------------|----------|

Emergency telephone - +1-703-741-5970

| | |
|---------------|-------------------|
| Europe | CCN# 17256 |
|---------------|-------------------|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

| | |
|---------------------------|----------------------|
| Skin sensitization | Category 1B - (H317) |
| Flammable liquids | Category 3 - (H226) |

2.2. Label Elements**Product identifier**

Contains Eucalyptol

**Signal word**

Warning

Hazard statements

H317 - May cause an allergic skin reaction

H226 - Flammable liquid and vapor

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

2.3. Other Hazards

H303 - May be harmful if swallowed H316 - Causes mild skin irritation

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical nature**

Cyclic ether.

| Chemical Name | EC No. | CAS No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|---|---------|----------|----------|---|---------------------------|
| Eucalyptol | Present | 470-82-6 | 99.5 | Skin Irrit. 3 (H316) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 3 (H226)(EFFA) Skin Sens. 1B (H317) (EFFA) | No data available |
| gamma-Terpinene - indirect natural impurity | Present | 99-85-4 | 0.1 - <1 | Rep Tox 2 (H361), Skin Irrit. 3 (316), Asp. Tox. 1 (H304), Acute Tox. 5 (H304), Flam. Liq. 3 (H226) | No data available |
| alpha-Pinene - indirect natural impurity | Present | 80-56-8 | 0.1 - <1 | Skin Sens. 1 (H317) (EFFA) Skin Irrit. 2 (315) (EFFA) Asp. Tox. 1 (H304) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. | No data available |

| | | | | | |
|--|---------|----------|-------|---|-------------------|
| | | | | Liq. 3 (H226)(EFFA) Skin Sens. 1 (H317) Skin Irrit. 2 (H315) Acute Tox. 5 (H303) | |
| para-Cymene - indirect natural impurity | Present | 99-87-6 | <0.01 | Aquatic Acute 2 (H401) (EFFA) Skin Irrit. 3 (316) (EFFA) Aquatic Chronic 2 (H411) (EFFA) Asp. Tox. 1 (H304) (EFFA) Acute Tox. 5 (H303)(EFFA) Flam. Liq. 3 (H226)(EFFA) Aquatic Acute 2 (H401) Skin Irrit. 3 (H316) Aquatic Chronic 2 (H411) Acute Tox. 5 (H303) | No data available |
| Myrcene - indirect natural impurity | Present | 123-35-3 | <0.01 | Eye Irrit. 2 (H319) (EFFA) Skin Irrit. 2 (H315) (EFFA) Asp. Tox. 1 (H304) (EFFA) Flam. Liq. 3 (H226)(EFFA) Aquatic Chronic 2 (H411)(EFFA) Aquatic Acute 1 (H400)(EFFA) | No data available |
| beta-Pinene - indirect natural impurity | Present | 127-91-3 | <0.01 | Skin Sens. 1 (H317) (EFFA) Skin Irrit. 2 (315) (EFFA) Asp. Tox. 1 (H304) (EFFA) Flam. Liq. 3 (H226)(EFFA) | No data available |
| alpha-Phellandrene - indirect natural impurity | Present | 99-83-2 | <0.01 | Skin Irrit. 3 (316) (EFFA) Asp. Tox. 1 (H304) (EFFA) Flam. Liq. 3 (H226)(EFFA) Skin Irrit. 3 (H316) | No data available |

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------|--|
| Inhalation | Remove to fresh air. |
| Skin contact | IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. |
| Eye Contact | Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Do not rub affected area. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |

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

Symptoms None known.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical, CO2, water spray or alcohol-resistant foam

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Flammable

Hazardous combustion products Irritating or toxic substances may be emitted upon burning, combustion, or decomposition.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with eyes and skin. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Wear protective gloves/protective clothing and eye/face protection.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Collect spillage.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Protect from sunlight. Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

| Chemical Name | European Union | United Kingdom | France | Spain | Germany |
|---|----------------|--|---|--|---|
| gamma-Terpinene - indirect natural impurity 99-85-4 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | - | - |
| alpha-Pinene - indirect natural impurity 80-56-8 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | TWA: 20 ppm TWA: 113 mg/m ³ | - |
| para-Cymene - indirect natural impurity 99-87-6 | - | - | TWA: 150 mg/m ³ TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | - | - |
| Myrcene - indirect natural impurity 123-35-3 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | - | - |
| beta-Pinene - indirect natural impurity 127-91-3 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | TWA: 20 ppm TWA: 113 mg/m ³ | - |
| alpha-Phellandrene - indirect natural impurity 99-83-2 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | - | - |
| Chemical Name | Italy | Portugal | Netherlands | Finland | Denmark |
| alpha-Pinene - indirect natural impurity 80-56-8 | - | TWA: 20 ppm | - | - | - |
| para-Cymene - indirect natural impurity 99-87-6 | - | - | - | - | TWA: 25 ppm TWA: 135 mg/m ³ |
| beta-Pinene - indirect natural impurity 127-91-3 | - | TWA: 20 ppm | - | - | - |
| Chemical Name | Austria | Switzerland | Poland | Norway | Ireland |
| alpha-Pinene - indirect natural impurity 80-56-8 | - | Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³ | - | TWA: 25 ppm TWA: 140 mg/m ³ Skin STEL: 37.5 ppm STEL: 175 mg/m ³ | - |
| Myrcene - indirect natural impurity 123-35-3 | - | - | - | TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³ | - |
| beta-Pinene - indirect natural impurity 127-91-3 | - | Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³ | - | TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³ | - |

Derived No Effect Level (DNEL)**Workers****dermal**

2 mg/kg bw/day

Inhalation7.05 mg/m³**Derived No Effect Level (DNEL)****General Population**

| | |
|------------|------------------------|
| oral | 600 mg/kg bw/day |
| dermal | 1 mg/kg bw/day |
| Inhalation | 1.74 mg/m ³ |

Predicted No Effect Concentration (PNEC)

| | |
|----------------------------|-------------------------|
| Fresh Water | 57 µg/L |
| Sea Water | 5.7 µg/L |
| Sea sediment | 0.142 mg/kg sediment dw |
| Soil | 0.25 mg/kg soil dw |
| Impact on Sewage Treatment | 10 mg/L |

8.2. Exposure controls

| | |
|-----------------------------|---|
| Engineering controls | Showers Eyewash stations Ventilation systems Ensure adequate ventilation, especially in confined areas |
|-----------------------------|---|

Personal Protective Equipment

| | |
|---------------------------------|--|
| Eye/Face Protection | Wear safety glasses with side shields (or goggles). |
| Hand protection | Wear protective gloves. |
| Skin and Body Protection | Wear suitable protective clothing. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |

| | |
|--|---------------------------|
| Environmental exposure controls | No information available. |
|--|---------------------------|

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

| | | | |
|-----------------------|-------------------------------|-----------------------|---------------------|
| Physical state | Liquid | | |
| Appearance | Clear | Odor | Characteristic odor |
| Color | Colorless to almost colorless | Odor threshold | Not applicable |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|-------------------|-------------------------|
| pH | | |
| Melting point / freezing point | -1.3 °C / 29.7 °F | |
| Boiling point / boiling range | 177 °C / 351 °F | |
| Flash Point | 52 °C / 126 °F | CC (closed cup) |
| Evaporation Rate | | |
| Flammability (solid, gas) | | |
| Flammability Limit in Air | | |
| Upper flammability limit: | | |
| Lower flammability limit: | | |
| Vapor pressure | 0.122kPa | (20°C) |
| Vapor Density | | |
| Specific gravity | | |
| Water solubility | 2,397.0ppm | (25°C) |
| solubility(ies) | | |
| Partition coefficient | 3.4log Pow | n-octanol/water |
| Autoignition Temperature | 300 °C / 572 °F | |
| Decomposition temperature | | |
| Kinematic viscosity | | |
| Dynamic viscosity | 2.1mm/s | (40°C) |

Explosive properties Not an explosive
Oxidizing properties Not oxidising

9.2. Other information

Molecular weight 154.25
VOC content (%) Not applicable
Density Not applicable
Bulk Density Not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity****10.2. Chemical stability**

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact None.
 Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Possibility of Hazardous Reactions**

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Heat, flames and sparks.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Harmful if inhaled.

Inhalation Avoid breathing vapors or mists.
Eye Contact Avoid contact with eyes.
Skin contact Avoid contact with skin. May cause sensitization by skin contact. Causes mild skin irritation.
Ingestion May be harmful if swallowed.

The following values are calculated based on chapter 3.1 of the GHS document

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Oral LD50 4,500 mg/kg (rat)
Dermal LD50 >2,000.00 mg/kg (rat)

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|----------------------|-------------|-----------------|
| Eucalyptol | = 2480 mg/kg (Rat) | | |

| | | | |
|--|---|-------------------------|------------------------|
| gamma-Terpinene - indirect natural impurity | = 3650 mg/kg (Rat) | | |
| alpha-Pinene - indirect natural impurity | = 3700 mg/kg (Rat) | > 5000 mg/kg (Rat) | |
| para-Cymene - indirect natural impurity | = 3669 mg/kg (Rat) = 4750 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | > 9.7 mg/L (Rat) 5 h |
| Myrcene - indirect natural impurity | > 5 g/kg (Rat) | > 5 g/kg (Rabbit) | |
| beta-Pinene - indirect natural impurity | = 4700 mg/kg (Rat) > 5000 mg/kg (Rat) | > 5000 mg/kg (Rabbit) | |
| alpha-Phellandrene - indirect natural impurity | = 5700 mg/kg (Rat) | | |

| | |
|--|---|
| Skin corrosion/irritation | Causes mild skin irritation. |
| Serious eye damage/eye irritation | Not classified. |
| Sensitization | May cause sensitization by skin contact. |
| Germ cell mutagenicity | Not classified. |
| Carcinogenicity | None known. |
| Reproductive toxicity | Product is or contains a chemical which is a known or suspected reproductive hazard. para-Cymene. gamma-Terpinene. |
| STOT - single exposure | Not classified. |
| STOT - repeated exposure | Not classified. |
| Aspiration hazard | Not classified. |

SECTION 12: Ecological information

12.1. Toxicity

None known

100 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name | Crustacea | Algae/aquatic plants | Fish |
|--|---|---|--|
| Eucalyptol | 48hr EC50/LC50 - 100 mg/L (Daphnia magna) | 72hr EC50 - 74 mg/L, EC10 or NOEC - 37 mg/L (Pseudokirchneriella subcapitata) | 96 HR LC50 for freshwater fish - 57 mg/L (Oncorhynchus mykiss) |
| alpha-Pinene - indirect natural impurity | 41: 48 h Daphnia magna mg/L LC50 | | 0.28: 96 h Pimephales promelas mg/L LC50 static |

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

Low potential for bioaccumulation.

Bioconcentration factor (BCF) 112 L/kg ww

| Chemical Name | Partition coefficient |
|--|-----------------------|
| alpha-Pinene - indirect natural impurity | 4.1 |
| para-Cymene - indirect natural impurity | 4.1 |

12.4. Mobility in soil

Mobility in soil

Koc - 214

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

| | |
|--|---|
| Waste from Residues/Unused Products | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Do not reuse container. |

SECTION 14: Transport information**IMDG**

| | |
|--|----------------------------|
| 14.1 UN/ID no | 1169 |
| 14.2 Proper Shipping Name | Extracts, Aromatic, Liquid |
| 14.3 Hazard Class | 3 |
| 14.4 Packing group | III |
| 14.5 Marine pollutant | Not applicable |
| 14.6 Special Provisions | 223, 955 |
| EmS-No | F-E, S-D |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | IBC03 |

RID

| | |
|----------------------------------|----------------------------|
| 14.1 UN/ID no | 1169 |
| 14.2 Proper Shipping Name | Extracts, Aromatic, Liquid |
| 14.3 Hazard Class | 3 |
| 14.4 Packing group | III |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

ADR

| | |
|----------------------------------|----------------------------|
| 14.1 UN/ID no | 1169 |
| 14.2 Proper Shipping Name | Extracts, Aromatic, Liquid |
| 14.3 Hazard Class | 3 |
| Labels | 3 |
| 14.4 Packing group | III |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |
| Classification code | F1 |
| Tunnel restriction code | (D/E) |

ICAO (air)

| | |
|----------------------------------|----------------------------|
| 14.1 UN/ID no | 1169 |
| 14.2 Proper Shipping Name | Extracts, Aromatic, Liquid |
| 14.3 Hazard Class | 3 |
| 14.4 Packing group | III |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

IATA

| | |
|---------------------------|----------------------------|
| 14.1 UN/ID no | 1169 |
| 14.2 Proper Shipping Name | Extracts, Aromatic, Liquid |
| 14.3 Hazard Class | 3 |
| 14.4 Packing group | III |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |
| ERG Code | 3L |

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Water hazard class (WGK) Slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorization and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

No information available

SECTION 16: Other information**Full text of H-Statements referred to under section 3**

H316 - Causes mild skin irritation
H303 - May be harmful if swallowed
H226 - Flammable liquid and vapor
H317 - May cause an allergic skin reaction

Key literature references and sources for data

Key Source: European Chemicals Agency, <http://echa.europa.eu>

Issue date 15-Jan-2015

Revision date 21-Feb-2020

Revision note Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

This material has not been tested or proven safe for inhalation. With this document, Phoenix LLC only attests to the safety of the product when used in the appropriate and suitable fragrance/flavor industry application.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,

transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Classification and labeling according to the IFRA/IOFI Labeling Manual 2019.

End of Safety Data Sheet