

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.04.2014

Version: 4

Revision: 24.04.2014

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

### 1.1 Product identifier

· Trade name: **REFRESH**

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

No further relevant information available.  
· Application of the substance / the mixture fragrance mixture

### 1.3 Details of the supplier of the safety data sheet

#### · Manufacturer/Supplier:

Stadler Form Aktiengesellschaft  
Chamerstrasse 174  
CH-6300 Zug  
Tel. +41 41 720 48 48

· Further information obtainable from: E-Mail: [info@aroma.ch](mailto:info@aroma.ch)

### 1.4 Emergency telephone number:

Swiss Toxicological Centre  
Freiestrasse 16, CH-6030 Zürich  
Emergency phone: 145 (24 h)  
+41 44 251 5151 (from outside of Switzerland)

## 2 Hazards identification

### 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



flame

Flam. Liq. 3      H226 Flammable liquid and vapour.



health hazard

STOT SE 2      H371 May cause damage to organs.  
Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.



environment

Aquatic Acute 1      H400 Very toxic to aquatic life.  
Aquatic Chronic 1      H410 Very toxic to aquatic life with long lasting effects.



Skin Irrit. 2      H315 Causes skin irritation.  
Skin Sens. 1      H317 May cause an allergic skin reaction.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R68-65:      Possible risk of irreversible effects. Harmful: may cause lung damage if swallowed.

Xi; Irritant

R38:      Irritating to skin.

Xi; Sensitising

R43:      May cause sensitisation by skin contact.

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N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R10: Flammable.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02

GHS07

GHS08

GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

rosemary oil

beta-Pinene

Citral

· **Hazard statements**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H371 May cause damage to organs.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **3.2 Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

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<b>· Dangerous components:</b>		
CAS: 5989-27-5 EINECS: 227-813-5 Index number: 601-029-00-7	(R)-p-mentha-1,8-diene ❌ Xi R38; ❌ Xi R43; 🚫 N R50/53 R10 ⚠️ Flam. Liq. 3, H226; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Skin Irrit. 2, H315; Skin Sens. 1, H317	50-100%
CAS: 800-25-7 EINECS: 283-291-9	rosemary oil ❌ Xn R22-68-65; ❌ Xi R43; 🚫 N R50/53 R10 ⚠️ Flam. Liq. 3, H226; ⚠️ STOT SE 2, H371; Asp. Tox. 1, H304; ⚠️ Aquatic Chronic 1, H410; ⚠️ Acute Tox. 4, H332; Skin Sens. 1, H317	10-25%
CAS: 127-91-3 EINECS: 204-872-5	beta-Pinene ❌ Xn R65; ❌ Xi R43; 🚫 N R50/53 ⚠️ Flam. Liq. 3, H226; ⚠️ Asp. Tox. 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Skin Sens. 1, H317	10-25%
CAS: 99-85-4 EINECS: 202-794-6	p-Mentha-1,4-dien ❌ Xn R65 ⚠️ Flam. Liq. 3, H226; ⚠️ Asp. Tox. 1, H304	2,5-10%
CAS: 5392-40-5 EINECS: 226-394-6 Index number: 605-019-00-3	Citral ❌ Xi R38; ❌ Xi R43 ⚠️ Skin Irrit. 2, H315; Skin Sens. 1, H317	2,5-10%
CAS: 80-56-8 EINECS: 201-291-9	pin-2(3)-ene ❌ Xn R65; ❌ Xi R43; 🚫 N R50/53 ⚠️ Flam. Liq. 3, H226; ⚠️ Asp. Tox. 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Skin Sens. 1, H317	2,5-10%
CAS: 123-35-3 EINECS: 204-622-5	7-methyl-3-methyleneocta-1,6-diene ❌ Xn R65 R52/53 ⚠️ Flam. Liq. 3, H226; ⚠️ Asp. Tox. 1, H304; Aquatic Chronic 3, H412	2,5-10%
CAS: 98-55-5 EINECS: 202-680-6	p-menth-1-en-8-ol ❌ Xi R38 ⚠️ Skin Irrit. 2, H315; Eye Irrit. 2, H319	1,0- 2,5%
CAS: 106-23-0	Citronellal ❌ Xi R38; ❌ Xi R43; 🚫 N R51/53 ⚠️ Aquatic Chronic 2, H411; ⚠️ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	0,1-1,0%
CAS: 106-24-1 EINECS: 203-377-1	Geraniol ❌ Xi R38-41; ❌ Xi R43 ⚠️ Eye Dam. 1, H318; ⚠️ Skin Irrit. 2, H315; Skin Sens. 1, H317	0,1-1,0%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

### · 4.1 Description of first aid measures

· **General information:** Immediately remove any clothing soiled by the product.

#### · **After inhalation:**

Supply fresh air.

In case of unconsciousness place patient stably in side position for transportation.

With careful handling and conditions of use, here is no danger.

#### · **After skin contact:**

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

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- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Call a doctor immediately.  
Do not induce vomiting.  
Rinse out mouth with water.
- **Information for doctor:**  
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon Monoxide and Carbondioxide
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Keep away from ignition sources.  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**  
Send for recovery or disposal in suitable receptacles.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## \* 7 Handling and storage

- **7.1 Precautions for safe handling**  
Do not inhale mist or vapors.  
Avoid contact with eyes and skin.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.  
Keep container tightly sealed.
- **Storage class:** 3 (TRGS510) flammable liquids
- **7.3 Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

#### · 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

#### 5989-27-5 (R)-p-mentha-1,8-diene

AGW (Germany)	Long-term value: 28 mg/m <sup>3</sup> , 5 ppm 4(II);DFG, H, Sh, Y
MAK (EU)	Long-term value: 200 mg/m <sup>3</sup> , 300 ppm
MAK (Switzerland)	Short-term value: 80 mg/m <sup>3</sup> , 14 ppm Long-term value: 40 mg/m <sup>3</sup> , 7 ppm S SSc;

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**  
For durable compliance with Occupational Exposure Limits (OEL, MAK) no special measures are required.  
Exposure measurements in the workplace are generally recommended.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Do not eat, drink, smoke or sniff while working.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
Solvent resistant gloves  
Chemical resistant gloves (EN 374)



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### · **Material of gloves**

PVA gloves  
Nitrile rubber, NBR  
Fluorocarbon rubber (Viton)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the

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application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**· **Form:** Liquid· **Colour:** Clear· **Odour:** Characteristic like pin needles, fresh· **Odour threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition**· **Melting point/Melting range:** Undetermined.· **Boiling point/Boiling range:** Undetermined.· **Flash point:** 44 °C (DIN 51755)· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:**· **Decomposition temperature:** Not determined.· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.· **Explosion limits:**· **Lower:** Not determined.· **Upper:** Not determined.· **Vapour pressure:** Not determined.· **Density at 20 °C:** 0,855-0,872 g/cm<sup>3</sup>· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with water:**

Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**· **Dynamic:** Not determined.· **Kinematic:** Not determined.· **Solvent content:**· **Organic solvents:** 53,3 %· **9.2 Other information** No further relevant information available.

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**10 Stability and reactivity**

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
Heat, flames and sparks.  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong acids, alkalis and oxidizing agents.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values relevant for classification:</b>	
<b>5989-27-5 (R)-p-mentha-1,8-diene</b>	
Oral	LD50 4400 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Causes skin irritation.

- **on the eye:** No irritating effect.

- **By ingestion:** May be fatal if swallowed and enters in airways.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

Harmful

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

- **Specific target organ toxicity (single exposure) STOT SE 2:** May cause damage of organs.

**12 Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- **European waste catalogue**  
For this product no waste disposal key according the European Waste Catalogue (EWC) can be determined, as only the use by the purpose of application defined by the user enables an allocation.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN1169
· <b>14.2 UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	1169 EXTRACTS, AROMATIC, LIQUID, ENVIRONMENTALLY HAZARDOUS, special provision 640E EXTRACTS, AROMATIC, LIQUID (DIPENTENE, rosemary oil), MARINE POLLUTANT EXTRACTS, AROMATIC, LIQUID
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, IMDG</b>	
 	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>  · <b>Marine pollutant:</b>  · <b>Special marking (ADR):</b>	Product contains environmentally hazardous substances: (R)-p-mentha-1,8-diene, rosemary oil Yes Symbol (fish and tree) Symbol (fish and tree)
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 30 F-E,S-D
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Excepted quantities (EQ):</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b>	E1 5L 3

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· <b>Tunnel restriction code</b>	D/E
· <b>UN "Model Regulation":</b>	UN1169, EXTRACTS, AROMATIC, LIQUID, special provision 640E, ENVIRONMENTALLY HAZARDOUS, 3, III

### 15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
(R)-p-mentha-1,8-diene  
rosemary oil  
beta-Pinene  
Citral
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H371 May cause damage to organs.  
H304 May be fatal if swallowed and enters airways.  
H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements**  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### \* 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** product safety department
- **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

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**Trade name: REFRESH***CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**· \* Data compared to the previous version altered.*

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