# SAFETY DATA SHEET

**According to Regulation (EC) No. 1907/2006 (REACH)**

### FR1000  LEMON OIL WINTER

## 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY / UNDERTAKING

### 1.1 Product Identifiers

<table>
<thead>
<tr>
<th>Product Code</th>
<th>FR1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>LEMON OIL WINTER</td>
</tr>
<tr>
<td>CAS No.</td>
<td>8008-56-8</td>
</tr>
<tr>
<td>Index No.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 1.2 Use

Use in Flavour / Food Application.

### 1.3 Company / Undertaking Identification

Ultra International B.V.

Malledijk 3H, 3208 LA Spijkenisse, (Loods 12-15), Netherlands

Tel : +316 6915330  Fax : +91-120 - 437 4000

E-mail : ultraintl.nl@gmail.com  www.ultrainternational.com

### 1.4 Emergency Telephone

+91-9810008844

## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance / preparation

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS classification]

<table>
<thead>
<tr>
<th>Category</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquid 3</td>
<td>H226  FLAMMABLE LIQUID AND VAPOUR</td>
</tr>
<tr>
<td>Aspiration Hazard 1</td>
<td>H304  MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation 2</td>
<td>H315  CAUSES SKIN IRRITATION</td>
</tr>
<tr>
<td>Skin Sensitization 1</td>
<td>H317  MAY CAUSE AN ALLERGIC SKIN REACTION</td>
</tr>
<tr>
<td>Aquatic acute 1</td>
<td>H400  VERY TOXIC TO AQUATIC LIFE</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>H410  VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS</td>
</tr>
</tbody>
</table>

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

- R10  FLAMMABLE
- R38  IRRITATING TO SKIN
- R43  MAY CAUSE SENSITIZATION BY SKIN CONTACT
- R65  HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED
- R50/53  VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

### 2.2 Label Elements

Label elements according to Regulation (EC) No. 1272/2008 (Substance)/Directive 67/548/EEC

**Hazard Pictogram / Symbol:**

- GHS 07
- GHS 02
- GHS 08
- GHS 09

**Signal word / Indication(s) of danger:**

Danger

**Hazard Pictogram / Symbol:**

N  Dangerous for the environment

Xn  Harmful

**Hazard Statements**

- H226  FLAMMABLE LIQUID AND VAPOUR
- H304  MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
- H315  CAUSE SKIN IRRITATION
- H317  MAY CAUSE AN ALLERGIC SKIN REACTION
- H410  VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS
SAFETY DATA SHEET
(According to Regulation (EC) No. 1907/2006 (REACH))

Precautionary Statements

P241 : USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/LIGHTING/../EQUIPMENT
P210 : KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING
P 281 : AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY
P301+310 : IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN
P303+361+353 : IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER
P 333+313 : IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION
P 273 : AVOID RELEASE TO THE ENVIRONMENT
P 233 : KEEP CONTAINER TIGHTLY CLOSED
P 280 : WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION FACE PROTECTION
P 331 : DO NOT INDUCE VOMITTING
P 501 : DISPOSE OFF CONTAINERS TO..... (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION)

3. COMPOSITION / INFORMATION OF INGREDIENTS

Substance Name : LEMON OIL WINTER
Substance Description : This product is a 100% flavoring agent.
Hazardous Components : d-Limonene (CAS N° 5989-27-5); Xi,N,R10,R38,R43,R50/53 ;
                      Alpha-pinene (CAS N° 80-56-8); Xn,N,R10,R43,R50/53,R65 ;
                      beta-pinene (CAS N° 127-91-3); Xn,Xi,R43,R50/53,R65 ;
                      gamma-terpenene(CAS N° 99-85-4);Xn,R10,R65;
                      Citral(Cas N° 5392-40-5);Xi,R38,R43;
CAS No. : 8008-56-8
EC No. : 284-515-8
Botanical Name : Citrus limon (L.)
Stabilizers : N/A
Synonyms : Lemon oil Argentina
            Lemon peel oil
Index No. : N/A
CLP Reference No. : ...
REACH Registration No. : ...

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye Contact : Remove contact lenses if worn. Flush immediately with plenty of water.
Skin Contact : Remove contaminated clothing. Wash affected area with mild soap and water.
Inhalation : Remove affected person to fresh air. If discomfort persists, consult physician.
Swallowing : Seek immediate medical care.

4.2 Indication of any immediate medical attention and special treatment method

IF SWALLOWED: Immediately call a POISON CENTER or Doctor/Physician.
IF ON SKIN (or hair): Remove /take off immediately all contaminated clothing. Rinse skin with water /shower.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

- Suitable : Carbon Dioxide; Dry Chemical; Universal Type Foam.
- Unsuitable : Water spray; others not established.

5.2 Special hazards arising from substance

Combustible liquid Possibility of development of hazardous gases or vapors in event of fire Following may develop: CO and CO2

5.3 Advice for fire fighters

Do not stay in dangerous zone without self protective clothing and breathing apparatus Spray extinguishing media directly into base of fire Cool containers exposed to flame with water Prevent fire fighting water entering surface water or ground water.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective equipment and emergency procedures

Wear personal protective clothing. Keep away unprotected individuals. Eliminate source of ignition. Keep area well ventilated and isolate the spill.

6.2 Environmental precautions

Prevent entry into drains, ground/surface water or sewerage system.

6.3 Methods and material for containment and cleaning up

Pick up with absorbents material (Sand) or with pump for large spills.

6.4 Reference to other sections

Refer to Section 7, 8 & 13
7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Measures to prevent fire
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking
  Use explosion proof electrical/ ventilating/lighting/equipment etc.

- Measures to prevent aerosols and dust generation
  Ensure good ventilation at workplaces

- Measures to protect the environment
  Prevent entry into drains, ground/surface water or sewage system.

General Occupational hygiene

Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe use, including any incompatibilities

Information on storage conditions

Should be stored in cool, dark, dry, well ventilated places in full, tightly sealed containers protected from light & source of ignition

Information on packing materials

Should be packed in Aluminium, HDPE Food Grade Cans, MS Coated Drums, and GI Drums, Avoid long contact with Iron

Requirements for storage rooms and vessels

Should be stored in suitable containers (lines inside) e.g. MS Coated Drums, GI Drums etc. No special requirement for storage rooms.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Appropriate engineering controls

Engineering controls should be used as the primary means to control exposures

8.2 Personal protective equipments

<table>
<thead>
<tr>
<th>Skin protection</th>
<th>Eye protection</th>
<th>Body protection</th>
<th>Respiratory protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety gloves</td>
<td>tight safety goggles</td>
<td>Protective clothing</td>
<td>Dust mask</td>
</tr>
</tbody>
</table>

8.3 Environmental exposure controls

Prevent entry into drains, ground/surface water or sewage system.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>-physical state</td>
<td></td>
</tr>
<tr>
<td>-colour</td>
<td>Yellow to green</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Medium</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point °C</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °C</td>
<td>160°C</td>
</tr>
<tr>
<td>Flash Point (Closed Cup) °C</td>
<td>50 ºC</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>218.8 Pa @ 25ºC</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity /Relative Density</td>
<td>0.845 - 0.860 @ 20 ºC</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.468 -1.480 @ 20 ºC</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>+57º - +65.6º</td>
</tr>
<tr>
<td>Surface tension</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>-Water</td>
<td></td>
</tr>
<tr>
<td>-Alcohol</td>
<td>1:3 in 95% alcohol</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1.28 mm²/s @ 20°C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>3.3 – 6.3</td>
</tr>
</tbody>
</table>
Explosive Limits
-Lower Explosion Limit 0.70 Vol%  
Upper Explosion Limit 6.10 Vol%  
Auto ignition Temperature 1012.9 - 1017.5 hPa of 235°C  
Flammability Flammable  
Granulometry N/A  
Oxidising Properties N/A

10. STABILITY AND REACTIVITY
10.1 Reactivity  
Not reactive, stable at room temperature.
10.2 Chemical stability  
Stable
10.3 Possibility of hazardous reactions  
Reactions with strong oxidizers
10.4 Conditions to avoid  
No decomposition if stored and handled properly
10.5 Incompatible materials  
Avoid strong acids strong bases and all oxidising agents
10.6 Hazardous decomposition products  
No dangerous decomposition products expected by intended use

11. TOXICOLOGICAL INFORMATION
11.1 Acute toxicity oral (LD50) > 5 gm/kg bw (Rat)  
11.2 Acute toxicity inhalation Not Determined  
11.3 Acute toxicity dermal (LD50) > 10 gm/kg bw (Rabbit)  
11.4 Skin Irritation/Corrosion Irritating  
11.5 Respiratory sensitization N/A  
11.6 Skin sensitization Sensitizing  
11.7 CMR Effects  
Carcinogenicity No  
Mutagenicity No  
Toxic to reproduction No  
11.8 Eye irritation / Corrosion Not irritating  
11.9 Exposure limits  
There is a blanket recommendation of 10 mg/m3 for inspirable dusts or mists when limits have not otherwise been established.

12. ECOLOGICAL INFORMATION
12.1 Toxicity  
PNEC Aqua (fresh water) : 5.4µg/L  
PNEC Aqua (marine water) : 0.54µg/L  
PNEC Aqua (intermittent release) : 5.77µg/L  
PNEC Sediment (fresh water) : 1.3 mg/kg sediment dw  
PNEC Sediment (marine water) : 0.13 mg/Kg sediment dw  
PNEC Soil : 0.261 mg/Kg soil dw  
PNEC Oral : 13.3 mg/Kg food  
NOAEL : N/A  
EC50 (48hrs) : 7.2 mg/L (Daphnia magna)  
LC50 (96hrs) : 0.3 mg/L (Fish)  
12.2 Persistence and degradability : Readily biodegradable in water  
12.3 Mobility in Soil : Low mobility  
12.4 Results of PBT and vPvB assessment  
  N/A

13. DISPOSAL CONSIDERATION
13.1 Waste treatment methods  
Product/packaging disposal  
Handle in accordance with official provisions
Waste treatment options
Recycling is preferred to disposal or burning

Waste code /Waste designations according to EWC/AVV
15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

13.2 Recommendations
Empty contaminated packing thoroughly as they may be recycled
Moistened solids to be disposed off adhering to necessary technical regulations after consulting concerned authorities

14. TRANSPORT INFORMATION

14.1 Land Transport (ADR/RID/GGVSE)
UN Number 2319
DG Class 3
Packing Group III
Proper Shipping Name Terpene, Hydrocarbons, N.O.S
Classification Code 3Y
Hazard Labels

14.2 Sea Transport (IMDG-Code/GGVSee)
UN Number 2319
DG Class 3
Packing Group III
Proper Shipping Name Terpene, Hydrocarbons, N.O.S
Marine Pollutant Yes
Hazard Labels

14.3 Air Transport (ICAO-IAT/DGR)
UN Number 2319
DG Class 3
Packing Group III
Proper Shipping Name Terpene, Hydrocarbons, N.O.S

14.4 Special precautions for users
Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse Prevent entry into drains, ground/surface water or sewerage system.

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
N/A

14.6 Other Information
Custom Tariff Code : 3301 13 0000
EmS Code : -

15. REGULATORY INFORMATION

EU regulations:
The product has been classified and labelled according to criteria provided in Directive 67/548/EEC and 1272/2008/EC, and following the recommendations of EFFA (European Flavor and Fragrance Association).

Other Regulations: German Regulation (VwVws)
Water Hazard Class : WGK 3
16. OTHER INFORMATION

16.1 Changes to previous version

Changes applicable according to regulation (EC) No 1907/2006 (REACH)

16.2 Abbreviations and acronyms

- **GHS**: Globally Harmonized System of Classification and labeling of Chemicals
- **CAS**: Chemical abstract Service (division of American Chemical society)
- **CLP**: Classification, Labelling and Packaging
- **LD50**: Lethal concentration, 50 percent
- **EC50**: Effective concentration, 50 percent
- **PNEC**: Predicted No Effect Concentration
- **NOAEL**: No Observed Adverse Effect Levels
- **ADR**: European Agreement concerning the International Carriage of Dangerous Goods by Road
- **RID**: Regulations Concerning the International Transport of Dangerous Goods by Rail
- **IMDG**: International Maritime Code for Dangerous Goods
- **IATA**: International Air Transport Association
- **IATA-DGR**: Dangerous Goods Regulations by the International Air Transport Association (IATA)
- **ICAO**: International Civil Aviation Organization

16.4 Wording of relevant hazard statement and/or precautionary statements referred to in section 2 to 15

**Hazard Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>DANGEROUS FOR THE ENVIRONMENT</td>
</tr>
<tr>
<td>Xn</td>
<td>HARMFUL</td>
</tr>
</tbody>
</table>

**Risk Phrases**

- **R10**: FLAMMABLE
- **R36**: IRRITATING TO SKIN
- **R43**: MAY CAUSE SENSITIZATION BY SKIN CONTACT.
- **R65**: HARMFUL; MAY CAUSE LUNG DAMAGE IF SWALLOWED
- **R50/53**: VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

**Safety Phrases**

- **S24**: AVOID CONTACT WITH SKIN
- **S37**: WEAR SUITABLE GLOVES
- **S61**: AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET
- **S62**: IF SWALLOWED, DO NOT INDUCE VOMITTING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

**Hazard Statements**

- **H226**: FLAMMABLE LIQUID AND VAPOUR
- **H304**: MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
- **H315**: CAUSES SKIN IRRITATION
- **H317**: MAY CAUSE AN ALLERGIC SKIN REACTION
- **H400**: VERY TOXIC TO AQUATIC LIFE
- **H410**: VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

**Precautionary Statements**

- **P241**: USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/LIGHTING/…/EQUIPMENT
- **P210**: KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING
- **P261**: AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY
- **P301+310**: IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN
- **P303+361+353**: IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER
- **P333+313**: IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION
- **P273**: AVOID RELEASE TO THE ENVIRONMENT
- **P233**: KEEP CONTAINER TIGHTLY CLOSED
- **P280**: WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION FACE PROTECTION
- **P331**: DO NOT INCRIBE VOMITTING
- **P501**: DISPOSE OFF CONTAINERS TO….. (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION)

16.5 Training advice appropriate for workers

N/A

16.6 Quality Declaration

The information contained herein is based on the present state of our knowledge. It characterizes the product with regards to the appropriate safety precaution. It does not represent a guarantee of the properties of the product.