SAFETY DATA SHEET

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

FRC02721 LEMONGRASS OIL

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

1.1 Product Identifiers

Product Code: FRC02721
Product Name: LEMONGRASS OIL
CAS No.: 8007-02-1
Index No.: N/A
CLP Reference No.: N/A
REACH Registration No.: N/A
EC No.: 289-752-0
FEMA No.: 2824

1.2 Use

Essential Oil

1.3 Company / Undertaking Identification

Ultra International Ltd.
64 / 1, Site-IV, Industrial Area, Sahibabad - 201010 (U.P.) India
Tel: +91-120-4388500 Fax: +91-120-437 4000 / 437 4444
E-mail: ultra@ultraintl.com Website: 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>HAZARD CATEGORY</th>
<th>HAZARD STATEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquid 4</td>
<td>H227 COMBUSTIBLE LIQUID</td>
</tr>
<tr>
<td>Acute Toxicity (Dermal) 5</td>
<td>H313 MAY BE HARMFUL IN CONTACT WITH SKIN</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>Serious eye damage/eye Irritation 1</td>
<td>H318 CAUSES SERIOUS EYE DAMAGE</td>
</tr>
<tr>
<td>Aquatic acute 2</td>
<td>H401 TOXIC TO AQUATIC LIFE</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>H412 HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS</td>
</tr>
</tbody>
</table>

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

R38                  IRRITATING TO SKIN
R43                  MAY CAUSE SENSITISATION BY SKIN CONTACT
R52/53               HARMFUL 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 01

Signal word / Indication(s) of danger:

Danger

Hazard Pictogram / Symbol:

Xi Irritant

Hazard Statements

H227 COMBUSTIBLE LIQUID
H313 MAY BE HARMFUL IN CONTACT WITH SKIN
H315 CAUSES SKIN IRRITATION
H317 MAY CAUSE AN ALLERGIC SKIN REACTION
H318 CAUSES SERIOUS EYE DAMAGE
H412 HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS
H401 TOXIC TO AQUATIC LIFE
Precautionary Statements

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING
P241 USE EXPLOSION-PROOF ELECTRICAL/VENTILATING/LIGHTING/…/EQUIPMENT
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
P405 STORE LOCKED UP
P501 DISPOSE OF CONTENTS/CONTAINER TO ... (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION).

3. COMPOSITION / INFORMATION OF INGREDIENTS

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>LEMONGRASS OIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Description</td>
<td>This product is a 100% natural essential oil.</td>
</tr>
<tr>
<td>Hazardous Components</td>
<td>D-LIMONENE (CAS No 5989-27-5) Xi, N, R10, R38, R43, R50/53</td>
</tr>
<tr>
<td></td>
<td>CITRAL (CAS No 5392-40-5) Xi, R38, R43</td>
</tr>
<tr>
<td></td>
<td>GERANIOL (CAS No 106-24-1) Xi R38,R41,R43</td>
</tr>
<tr>
<td></td>
<td>GERANYL ACETATE (CAS No 105-87-3) N R51/53</td>
</tr>
<tr>
<td></td>
<td>MYRCENE (CAS No 123-35-3) Xn R10,R38,R65</td>
</tr>
<tr>
<td>CAS No</td>
<td>8028-48-6</td>
</tr>
<tr>
<td>EC No</td>
<td>232-433-8</td>
</tr>
<tr>
<td>Botanical Name</td>
<td>Cymbopogon flexuosus</td>
</tr>
<tr>
<td>Synonyms</td>
<td>LEMONGRASS OIL</td>
</tr>
<tr>
<td>Stabilizers</td>
<td>N/A</td>
</tr>
<tr>
<td>Index No.</td>
<td>N/A</td>
</tr>
<tr>
<td>CLP Reference No.</td>
<td>N/A</td>
</tr>
<tr>
<td>REACH Registration No.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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 firefighters

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
SAFETY DATA SHEET  
According to Regulation (EC) No. 1907/2006 (REACH)

FRC02721  LEMONGRASS OIL

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 sewerage 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

Exposure controls
8.1 Appropriate engineering controls
Engineering controls should be used as the primary means to control exposures

8.2 Personal protective equipments
Skin protection  Eye protection  Body protection  Respiratory protection

Safety gloves  tight safety goggles  Protective clothing  Dust mask

8.3 Environmental exposure controls
Prevent entry into drains, ground/surface water or sewerage system.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
-physical state  Liquid
-colour  Yellow to light brown red
Odour  Characteristic, heavy lemon-like
Odour Threshold  Medium
pH  N/A
Melting Point °C  N/A
Boiling Point °C  N/A
Flash Point (Closed Cup) °C  71 °C
Vapour Pressure  N/A
Vapour Density  Not Estimated
Specific Gravity /Relative Density  0.852 – 0.905 @ 25°C
Refractive Index  1.483 – 1.489 @ 20° C
Optical Rotation
-4° to +1°
Surface tension  Not Estimated
Solubility
- Water  Insoluble
- Alcohol  1:3 in 70% Alcohol
Viscosity  N/A
Partition Coefficient  Not estimated
SAFETY DATA SHEET

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

FRC02721 LEMONGRASS OIL

Version : SDS/2010/1
Date: 24/08/2013
Revision :
Date: 
Page No. : Page 4 of 6

Explosive Limits
- Lower Explosion Limit N/A
- Upper Explosion Limit N/A
Auto Ignition Temperature N/A
Flammability N/A
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 us

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity oral (LD50) >5 g/kg
11.2 Acute toxicity inhalation >5 g/kg
11.3 Acute toxicity dermal (LD50) Not determined
11.4 Skin Irritation/Corrosion Not determined
11.5 Respiratory sensitization Not determined
11.6 Skin sensitization N/A
11.7 CMR Effects
Carcinogenicity No
Mutagenicity No
Toxic to reproduction No
11.8 Eye Irritation / Corrosion Not determined
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 Oral : N/A
NOAEL : N/A
EC50 (48hrs) : N/A
LC50 (96hrs) : N/A
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

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14. TRANSPORT INFORMATION

14.1 Land Transport (ADR/RID/GGVSE)
- UN Number: 3082
- DG Class: 9
- Packing Group: III
- Proper Shipping Name: Environmentally hazardous Substance, liquid, n.o.s
- Classification Code: 3Y
- Hazard Labels: 

14.2 Sea Transport (IMDG-Code/GGVSee)
- UN Number: 3082
- DG Class: 9
- Packing Group: III
- Proper Shipping Name: Environmentally hazardous Substance, liquid, n.o.s
- Marine Pollutant: Yes
- Hazard Labels: 

14.3 Air Transport (ICAO-IAT/DGR)
- UN Number: 3082
- DG Class: 9
- Packing Group: III
- Proper Shipping Name: Environmentally hazardous Substance, liquid, n.o.s
- Hazard Labels: 

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 sewage 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 29 6000
- 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
16.4 Wording of relevant hazard statement and/or precautionary statements referred to in section 2 to 15

Hazard Codes

Xi IRRITANT

Risk Phrases

R38 IRRITATING TO SKIN
R43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R62/53 HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

Safety Phrases

S24 AVOID CONTACT WITH SKIN
S36/37 WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES
S61 AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET

Hazard Statements

H227 COMBUSTIBLE LIQUID
H313 MAY BE HARMFUL IN CONTACT WITH SKIN
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P405 STORE LOCKED UP
P501 DISPOSE OF CONTENTS/CONTAINER 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.