1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY

Product Name: Ronson Lighter Fluid
Synonyms, Trade Names: Ronsonol Lighter Fluid 133ml
Applications: Liquid Lighter fuel
Supplier: Ronson International Ltd
International House, Old Brighton Road
Lowfield Heath, Crawley, West Sussex RH11 0QN
Emergency Telephones: 01293 843600

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>No.</th>
<th>Contents</th>
<th>Health class)</th>
<th>Risk (R No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronson Lighter Fluid</td>
<td>64741-84-0</td>
<td>Aliphatic hydrocarbons</td>
<td>51/53</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Highly Flammable. Toxic to aquatic organisms, may cause long term adverse effect on the aquatic environment.

4. FIRST AID MEASURES

General: NOTE! Keep affected person away from heat, sparks and flames!
Promptly wash eyes with copious amounts of water while lifting the eyelids. Get medical attention immediately. Continue to rinse.
Skin: Remove affected person from source of contamination. Promptly remove clothing. If penetrated and flush the skin with water.
Inhalation: Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. Keep the affected person warm and at rest. Get prompt medical attention.
Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Stop flow of material to fire. Fire can be extinguished by using foam, dry chemicals, sand, dolomite etc.
Special Fire Fighting Procedures:
Use water to keep fire-exposed containers cool and disperse vapors. Cool containers exposed to flames with water from the side until well after the fire is out. Move container from fire area if it can be done without risk.
MATERIAL SAFETY DATA SHEET
RONSON LIGHTER FLUID

Unusual Fire & Explosion Hazards:
May explode in a fire. May travel a considerable distance to source of fire and flashback.

Hazardous Decomposition Products:
Toxic gases/vapors/fumes of carbon monoxide (CO) and carbon dioxide (CO₂).

6. ACCIDENTAL RELEASE MEASURES

Spill Cleanup Methods: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Keep combustibles away from spilled material. Absorb with inert, damp, non-combustible material, flush the area with water.

7. HANDLING AND STORAGE

Usage Precautions: Keep away from heat, sparks and open flame.
Storage Precautions: Flammable/Combustible Keep away from oxiders, heat and flames. May attack some rubber and coatings.
Storage Criteria: Flammable Liquid storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Cas No.</th>
<th>STD (8hrs)</th>
<th>LT EXP (15 min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronson Lighter Fluid</td>
<td>64741-84-0</td>
<td>OES</td>
<td>800 ppm</td>
</tr>
</tbody>
</table>

Ingredient comments: OES = Occupational Exposure Standard (EH40)
Ventilation: Well-ventilated area
Respirators: No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL).
Protective Gloves: Not normally required under normal use unless user has skin disorder.
Eye Protection: Under normal use should not be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor/Taste</td>
<td>mild (or faint), organic solvents</td>
</tr>
<tr>
<td>Solubility description</td>
<td>Insoluble in water, miscible with organic solvents (most)</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1)</td>
<td>0.73 @ 20°C</td>
</tr>
<tr>
<td>Evaporation Rate (EtEt=1)</td>
<td>9.5</td>
</tr>
<tr>
<td>Vapor Pressure (mmHg)</td>
<td>2.04 @ 20°C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&lt;30°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100 - 155°C 760mmHg</td>
</tr>
<tr>
<td>Flash Point</td>
<td>4°C</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>CC (Closed Cup)</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>230°C</td>
</tr>
<tr>
<td>Flammability Limit</td>
<td>lower % :0.90</td>
</tr>
</tbody>
</table>

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10. STABILITY AND REACTIVITY

Stability: Avoid heat, sparks, and flames.
Materials to avoid: Strong oxidizing agents.
Conditions to avoid: Evaporates easily in air. Reacts strongly with oxidizers.

Hazardous Decomposition Products
Toxic gases/vapors/fumes of carbon monoxide (CO), carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Health Warnings: Vapor from this chemical can be hazardous when inhaled.
Eye Contact: Mild irritation, or discomfort
Skin contact: Defatting of the skin resulting in dermatitis.
Inhalation: Irritation to the respiratory system.
Ingestion: Irritation to mouth and digestive tract. Vomiting can cause an aspiration hazard.
Medical symptoms: Dizziness.

12. ECOLOGICAL INFORMATION

Degradability: Not readily biodegradable. Will float on water, evaporate quickly, low potential to bioaccumulate.
Acute fish Toxicity: Toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Dispose of in accordance with Local Authority requirements.

14. TRANSPORT INFORMATION

Road:
UN No. 1268 Hazchem Code 3YE
ADR Class 3 ADR Item No 3(b)
ADR Hazard No. 33 Highly flammable liquid (flash point below 23°C)
Cefic Tec®No. 754 ADR Label No. 3
Marginal: 2301
Label for Conveyance

Air:
UN No. 1268 Air Transport Class No. 3
Air Sub Class: 3 Air Pack Gr; 11

Sea:
UN No: 1268 Sea Transport Class No. 3.2
IMDG Page No. 3271 Marine Pollutant Yes
15. REGULATORY INFORMATION

Label For Supply

Risk Phrases
- R-11 Highly Flammable
- R-51/53 Toxic to aquatic organisms, may cause long term adverse effect in the aquatic environment.

Safety Phrases:
- S-9 Keep container in a well-ventilated place.
- S-16 Keep away from sources of ignition – NO SMOKING.
- S-29 Do not empty into drains.
- S-62 If swallowed do not induce vomiting. Seek medical advice immediately and show this container or label.

UK Regulatory References.
- Classification, Packaging and Labeling Regulations 1984.
- Highly Flammable Liquid Regulations 1972
- Health and Safety at work Act 1974
- The Control of Substances Hazardous to Health Regulations 1988

16. OTHER INFORMATION

Information Sources:
- OSHA Air Contaminants – Permissible Exposure Limits (Title 29).
- Handbook of Toxic and Hazardous Chemicals and Carcinogens, Sittig, ’85.
- Threshold Limit Values and Biological Exposure Indices for 1994-95.

SDS No: 1021
Revision Date: May 2000
Revision No./ Replaces SDS issued: 31.01.1996
Revision Comments: New Safety Sheet to Chip Format.