

MATERIAL SAFETY DATA SHEET
ACCORDING TO EC LEGISLATION 91/155/E EC

Date created: August 2002

Date revised: July 2005

1. Identification:

Commercial name: *Citronella essential oil*.
Botanical Nomenclature: *Cymbopogon nardus*
INCI name: *Cymbopogon nardus*
CAS number: 8000-29-1
EINECS CAS number: 89998-15-2
EEC Number: 289-753-6

2. Composition:

Main components: *Citrenelol, citrenelal*
Additives (e.g. carriers, preservatives, antioxidants): *Nil*.

3. Potential Health Hazards:

Inhalation: *None identified*.
Skin: *Concentrated liquid and vapours irritating to skin by prolonged exposure*.
Eyes: *Irritating to eyes with possible damage*.
Ingestion: *Harmful if swallowed*.

4. First aid:

Inhalation: *If discomfort is felt, remove person to a well ventilated area with plenty of fresh air*.
Skin: *Remove contaminated clothing. Wash affected area with plenty of soap and water*.
Eyes: *Flush immediately with plenty of cool water for 10 to 20 minutes. Seek medical advice from a Medical Doctor*.
Ingestion: *Seek immediate medical care*.

5. In case of fire:

Extinguishing Media: *Foam, Carbon dioxide*.
Do not use: *Water*.
Special precautions: *Wear breathing apparatus as toxic vapours may be released during fire*.

6. Spill and Leak Procedure:

Individual precautions: *Eliminate sources of ignition. Keep area well ventilated and isolate the spill*.
Environmental protection: *Prevent the liquid from entering the drains and sewers*.
Cleaning methods: *Soak up the spill using inert absorbents. For large spills use pumps*.

7. Handling and storage:

Store in a cool, dry and dark place in suitable containers (aluminium cans or lacquer lined steel drums).
Handle in a well ventilated area.
Keep away from sources of heat and ignition.

8. Personal Protection / Exposure control:

Respiratory protection: *Wear breathing apparatus when working in an area of high vapour concentration*.

Skin protection: *Use protective gloves. Wear protective clothing when possibility exists of contact.*

Eye protection: *Goggles should be worn.*

General precautions: *Use good industrial hygiene practise.*

9. Physiochemical properties:

Appearance:	<i>Yellow- brown oil</i>
Odour:	<i>Characteristic</i>
pH:	<i>Neutral</i>
Boiling point:	<i>Not available</i>
Flash point:	<i>80°</i>
Autoignition Temperature:	<i>Not available</i>
Explosion Limits:	<i>Not available</i>
Vapour pressure (25°C):	<i>Not available</i>
Vapour Density:	<i>>1 (air=1)</i>
Specific Gravity (20°C):	<i>0.880-0.895</i>
Optical Rotation (20°C):	<i>+2° to -5°</i>
Refractive Index (20°C):	<i>1.458-1.473</i>
Solubility in water (20°):	<i>Negligible</i>
Partition Coefficient log P o/w:	<i>Not available</i>
Evaporation rate:	<i><1 (Butyl Acetate=1)</i>

10. Stability and Reactivity:

Chemical Stability: *Stable.*

Conditions to avoid: *Normally stable. Not reactive with water.*

Hazardous Decomposition Products: *Not available.*

11. Sensitisers:

Citral 1.1%, Geraniol 23%, Citronellol 8.5%, Limonene 12%, Linalool 1%, total 45.6%

12. Toxicological Information:

According to RIFM- Monograph:

Acute Toxicity: *Oral LD₅₀: 5 g/kg in rats.*
Dermal LD₅₀: 4.7 g/kg in rabbits.

Irritation: *Tested without irritation at 8%.*

Sensitisation: *Tested without sensitisation at 8%.*

Phototoxicity: *No phototoxic reaction reported.*

13. Ecotoxicological information:

Fish Toxicity: LCO/EC₅₀: *Not available.*

Bacteriotocity: ECO/EC₅₀: *Not available.*

14. Disposal Method:

Check Federal, State and Local Regulations.

15. Transport Information:

Non-hazardous material, transport in suitable containers

16. Regulatory Information

The British Essential Oil Association Chip Regulations – 2002

<u>Hazard Symbols:</u>	Xn
<u>Risk Phrases:</u>	R10, 65
<u>H/C %:</u>	15

Safety Phrases: S62

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FOR AND ON BEHALF OF PHOENIX NATURAL PRODUCTS:

J.S. CHANA..... (MANAGING DIRECTOR)

DATE:.....