MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/PREPARATION & COMPANY

Product Name: Barrier H
Supplier: Barrier Biotech Limited, Unit 36 Haverscroft Industrial Estate, New Road, Attleborough Norfolk NR17 1YE
Emergency Tel: Number: 44(0)1953 456363 Emergency Contact: Sandra Morris

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation: Oil in water
Active Ingredient: 22.9%w/w Citronella Oil Java Type
Ai Definition/Botanical Origin: By steam distillation of the grass of Cymbopogon winterianus.
H-No: 3301.29 CAS No: 8000-29-1 Status: Natural
CoE No: 39 FEMA: 2308 Additives: None
FDA: 182.20 IFRA: No restriction Application: -
RIFM: Monograph EINECS: 289-753-6 RTECS:
INCI Name: Cymbopogon winterianus

3. HAZARDS IDENTIFICATION

Diluted oil in water mix. Ready To Use. Do not ingest. Observe good housekeeping procedures.

4. FIRST-AID MEASURES

INHALATION: Remove from exposure site to fresh air. Keep at rest.
EYE CONTACT: Rinse immediately with plenty of water for at least 5 minutes. Contact a doctor if symptoms persist.
SKIN CONTACT: Remove contaminated clothes. Wash down with plenty of water. If irritation persists, seek medical advice.
INGESTION: Rinse mouth out with water. If discomfort persists, seek medical advice.
OTHER: When assessing action take Risk & Safety Phrases into account (Section 15).

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA RECOMMENDED: Use CO₂, Dry powder or Foam type Extinguishers, spraying extinguishing media to base of flames. Do not use direct water jet on burning material.
SPECIAL MEASURES: Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke. Wear positive pressure self-contained breathing apparatus & protective clothing.
6 ACCIDENTAL RELEASE MEASURES
PERSONAL PRECAUTIONS: Minimise inhalation and direct contact with skin & eyes.
CLEAN-UP METHODS FOR SPILLAGES: Contain spilled material. Cover with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Observe state, federal & local disposal regulations.
ENVIRONMENT PRECAUTIONS: Minimise exposure to surface & groundwaters.

7 HANDLING & STORAGE
PRECAUTIONS IN HANDLING: Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene and do not eat, drink or smoke whilst handling.
STORAGE CONDITIONS: Store in tightly closed original container, in a cool dry & ventilated area away from heat sources & protected from light. Keep air contact to a minimum.
FIRE PROTECTION: Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION
RESPIRATORY PROTECTION: Minimise breathing product vapour.
VENTILATION: Ensure good ventilation of working area
PERSONAL PROTECTION: Minimise all skin contact. Wear suitable protective gloves and face protection.
WORK/HYGIENE PRACTICES: Wash hands with soap & water after handling.

9 PHYSICAL & CHEMICAL PROPERTIES
COLOUR: Milky white  ODOUR: Sweet Citral
APPEARANCE: Liquid  FLASH-POINT °C: 320
ACTIVE INGREDIENT PROPERTIES:
SPECIFIC GRAVITY @ 20°C: 0.880 – 0.895
REFRACTIVE INDEX @ 20°C: 1.4650 – 1.4750
Typical analysis by GC/MS: Limonene 3.0%, Citronellal 32.5%, Citronellyl acetate 3.8%, Borneol 2.9%, Geranyl acetate 5.1%, Citronellol 11.9%, Geraniol 22.7%, Elemol 3.0%, Eugenol 1.1%.

10 STABILITY & REACTIVITY
REACTIVITY: It presents no significant reactivity hazards, by itself on in contact with water. Minimise contact with strong acids, alkali or oxidising agents.
DECOMPOSITION: liable to cause smoke & acrid fumes during combustion: carbon monoxide, carbon dioxide and other non-identified organic compounds may be formed.

11 TOXICOLOGICAL INFORMATION
LD50 orl rat: 31,450 mg/kg (Pharmazie (1959) 14, 435)
LD50 ipr rat: 3120 mg/kg  LD50 orl mus: 20,000 mg/kg
LD50 skn rbt 20,500mg/kg  skn rbt: 2200mg/24hr RIFM Monograph (1973) FCT 11, 1067 (cymbopogon nardus only)
12 ECOLOGICAL INFORMATION

BIODEGRADABILITY: Data not available
PRECAUTIONS: Minimise contamination of surface & groundwaters.

13 DISPOSAL CONSIDERATIONS

In accordance with local environmental laws.

14 TRANSPORT REGULATIONS

Road (ADR/RID): NR Air (IATA):
Sea (IMDG): CHIP: See Section 15

15 REGULATORY INFORMATION

HAZARDS:
SYMBOLS:
RISK PHRASES:
SAFETY PHRASES: Not Classified as Dangerous (Directive 88/379/EEC)

16. OTHER INFORMATION

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Shelf Life 24 months when stored within advised conditions

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