



Unit 36 Haverscroft Industrial Estate,  
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## **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 CO<sub>2</sub>, 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**

<b>Packaging:</b>	Type	Suitability
	GLASS	Yes
	Lacquer lined steel/tin	Yes
	ALUMINIUM	Yes
	HPPE	No
	F/HDPE	Yes
	Other Plastic	No

**Shelf Life** 24 months when stored within advised conditions

The Data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge and belief. The data was obtained from current and reliable sources but is supplied without warranty, expressed or implied, regarding its correctness or accuracy. It is the users' responsibility to determine safe conditions for the use of this product and to assume liability for loss, injury, damage or expense arising from its improper use. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.