

**RUTLAND BIODYNAMICS LTD**  
**MATERIAL SAFETY DATA SHEET (MSDS)**

**Artemisia annua tincture 1:2 45% ethanol**

### 1. General Information

**Product:** Artemisia annua tincture 1:2 45% ethanol

**Manufacturer/supplier:** Rutland Biodynamics Ltd, Town Park Farm, Brooke, Rutland,  
LE15 8DG.  
Emergency Telephone: +44 (0) 1572 757440

### 2. Composition/Ingredients

**Chemical description:** An aqueous ethanolic extraction of herbal material

**Ingredients:** Artemisia annua  
Ethanol  
Purified Water BP

### 3. Hazards identification

R10 – Flammable

### 4. First aid measures

**GENERAL: IF IN DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION.**

**Eyes:** Flush eyes with plenty of water for 5 minutes while lifting eyelids. If discomfort persists, seek medical attention and continue to rinse

**Skin:** Remove contaminated clothing. Wash the affected area thoroughly with soap and water. If discomfort persists obtain medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. In case of spontaneous vomiting, ensure vomit can drain freely to prevent danger of suffocation. Never give anything by mouth to an unconscious person. When conscious, rinse mouth with 500ml water. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, apply artificial respiration. Obtain medical attention should symptoms persist.

**Inhalation:** Move person into fresh air. If recovery not rapid, seek medical attention.

### 5. Fire-fighting measures

**Extinguishing Media:**

Alcohol resistant foam, Water spray. Carbon dioxide (CO<sub>2</sub>), Dry chemicals etc. Keep containers and surroundings cool with water spray.

**Hazardous Combustion Products**

Incomplete combustion may result in the release of toxic carbon monoxide.

## Protective Measures in Fire

Fire fighters should wear self-contained breathing apparatus

## 6. Accidental release measures

### Personal Precautions:

Wear appropriate protective clothing. Eliminate sources of ignition.

### Precautions to Protect the Environment

Prevent contamination of soils, drains and surface water.

### Spill Clean-up Method

Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Wash area with detergent and water.

## 7. Handling and storage

**Usage:** Product should be handled according to good industrial practice. Use in well ventilated area. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

**Storage:** Storage area should be cool, well ventilated. Store away from sources of heat or ignition. Storage and transfer equipment should be adequately earthed and bonded to prevent the accumulation of static charges.

## 8. Exposure controls/personal protection

Ensure adequate ventilation. Use impervious gloves. Use eye protection if eye contact is likely. Use respiratory protection if there is a risk of exposure to high vapour concentrations. Wear PPE appropriate to the quantity of material handled.

## 9. Physical properties

**Physical State:** A mobile liquid with a characteristic odour.

**Colour:** Brown

**Flash Point:** 24 °C

**Ethanol Content:** 43 - 47 % v/v

## 10. Stability and reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Incompatibilities with Other Materials:** Strong oxidizers. Nitric acid

**Hazardous Decomposition Products:** Carbon oxides.

## 11. Toxicological information

**General Health Hazards:** May be intoxicating if inhaled or ingested.

**Inhalation:** High vapour concentration exposure to may cause CNS (central nervous system) depression or have similar effects to those of ingestion

**Ingestion:** May cause nausea, vomiting or diarrhoea.

**Eyes:** May cause transient eye irritation or damage.

**Other Health Effects:** For ethanol component of the preparation, adverse effects on male reproductive system have been reported in laboratory animals on prolonged exposure.

## 12. Ecological information

**Ecotoxicity:** No data available. No information available.

**Environmental:** Readily biodegradable.

**Physical:** No information available.

**Other:** None.

## 13. Disposal considerations

This material must be disposed of as hazardous waste according to Special Waste Regulations 1996 or according to local regulations, in compliance with Duty of Care Regulations and Special Waste Regulations as waste from manufacture, supply and use of pharmaceuticals.

## 14. Transport Information

**DOT Classification:** R10 Flammable liquid

**UN No:** 1293 (TINCTURES, MEDICINAL)

**Class:** 3

**Packaging Group:** III

## 15. Regulatory information

**EC Classifications:** Flammable Liquid

**Risk Phrases:** R-10 Flammable Liquid

**Safety Phrases:**

## 16. Other information

Date of issue: 16/02/11

Date of print: 16/02/11