

## Material Safety Data Sheet

### According to 91/155 EEC

Printing date 28.12.2005

Reviewed on 28.12.2005


#### 1 Identification of substance:

- **Product details:**
- **Trade name:** *Tinct. Myrrhae Ph.Eur.*
- **Application of the substance / the preparation medicine**
- **Manufacturer/Supplier:**  
 Madaus GmbH  
 Lütticher Str. 5  
 D-53842 Troisdorf  
 Tel: +49(0)221-8998-0
- **Informing department:**  
 Dept. for Industrial Safety and Environmental Protection  
 Tel: +49(0)221-8998-988
- **Emergency information:** Tel: +49-0)221-8998-0

#### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** *Extract of plants with ethanol.*

- **Dangerous components:**

CAS: 64-17-5	ethanol	 F; R 11	90%
EINECS: 200-578-6			

- **Additional information** For the wording of the listed risk phrases refer to section 16.

#### 3 Hazards identification

- **Hazard designation:**



F Highly flammable

- **Information pertaining to particular dangers for man and environment**  
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
 R 11 Highly flammable.
- **Classification system**  
 The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

#### 4 First aid measures

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** The product is not skin irritating.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** In case of persistent symptoms consult doctor.

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### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Gaseous extinguishing agents.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Can be released in case of fire  
Carbon monoxide (CO)
- **Protective equipment:** Wear breathing protection if necessary.
- **Additional information** Use water to keep fire exposed containers cool.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Ensure adequate ventilation  
Keep away from ignition sources  
Use breathing protection against the effects of fumes/dust/aerosol.  
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Prevent material from reaching sewage system, holes and cellars.  
Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Ensure adequate ventilation.  
Dilution with water is possible.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Keep away from heat and direct sunlight.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).  
Avoid the formation of inflammable and explosive solvent vapours in the air and prevent the maximum workplace concentration values from being exceeded.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Observe special regulations specified in item 15.  
Store in cool location.
- **Information about storage in one common storage facility:**  
Keep away from strong oxidizing, alkalis and acidic materials.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Components with limit values that require monitoring at the workplace:**

64-17-5 ethanol

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **Personal protective equipment**
- **General protective and hygienic measures**  
Wash hands during breaks and at the end of the work.

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- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
Use gloves of stable material (i.e. nitril rubber).  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**  
Nitrile rubber, NBR
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Solvent resistant protective clothing

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Fluid
<b>Colour:</b>	Red-brown
<b>Odour:</b>	Characteristic

#### · Change in condition

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** 74°C (ASTM D 1120)

· **Flash point:** 18.2°C (DIN 51755)

· **Ignition temperature:** 440°C

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/ steam mixtures is possible.

#### · Critical values for explosion:

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15.0 Vol %

· **Vapour pressure at 20°C:** 6.6 kPa (DIN EN 13016)

· **Density at 20°C** 0.842-0.855 g/cm<sup>3</sup>

#### · Solubility in / Miscibility with

**Water:** Fully miscible

· **pH-value at 20°C:** 4.5-5.5

#### · Solvent content:

**Organic solvents:** 90.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.

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- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:**  
None in case of intended use and storage in compliance with instructions.

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

#### 64-17-5 ethanol

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50	20000 mg/l/4h (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect known.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is easily biodegradable.
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
The waste code numbers mentioned are recommendations based on the probable use of the product.

#### · **European waste catalogue**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 05 00	wastes from the MFSU of pharmaceuticals
07 05 04	other organic solvents, washing liquids and mother liquors
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03 00	off-specification batches and unused products
16 03 05	organic wastes containing dangerous substances

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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### 14 Transport information

· **Land transport ADR/RID (cross-border)**



- **ADR/RID-GGVS/E Class:** 3 (F1) Flammable liquids.
- **Kemler Number:** 33
- **UN-Number:** 1170
- **Packaging group:** II
- **Label:** 3
- **Designation of goods:** 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1170
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Correct technical name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1170
- **Label:** 3
- **Packaging group:** II
- **Correct technical name:** ETHANOL SOLUTION

### 15 Regulatory information

· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**



F Highly flammable

· **Risk phrases:**

11 Highly flammable.

· **Safety phrases:**

3/7 Keep container tightly closed in a cool place.

16 Keep away from sources of ignition - No smoking.

60 This material and its container must be disposed of as hazardous waste.

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- **National regulations**
- **Information about limitation of use:**  
*Employment restrictions concerning young persons must be observed.*
- **Technical instructions (air):**

Class	Share in %
NK	50-100

- **Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
- **Other regulations, limitations and prohibitive regulations**  
*Observe the regulation for flammable liquid "TRbF 20" (German Regulation) during handling and storage.*  
*Observe the regulations for protection against fire and explosion.*

### 16 Other information:

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Relevant R-phrases**  
*11 Highly flammable.*
- **Department issuing data specification sheet:**  
*This Material Safety Data Sheet has been drawn up in cooperation with:  
DEKRA Umwelt GmbH, Vahrenwalder Str. 207 A, D-30165 Hannover,  
Tel.: +49-(0)511-963550.*

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