

# Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.06.2015

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## Molisch Reagent

### SECTION 1: Identification of the substance/mixture and of the supplier

**Product name:** Molisch Reagent

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** S25754

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

Fisher Science Education  
6771 Silver Crest Road, Nazareth, PA 18064  
(724)517-1954

**Emergency telephone number:**

**Fisher Science Education**  
Emergency Telephone No.: 800-535-5053

### SECTION 2: Hazards identification

**Classification of the substance or mixture:**



**Corrosive**

Serious eye damage, category 1



**Irritant**

Skin irritation, category 2



**Flammable**

Flammable liquids, category 2

Flammable liq. 2.

Eye Dam. 1.

Skin Irrit. 2.

**Signal word:** Danger

**Hazard statements:**

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye damage.

**Precautionary statements:**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

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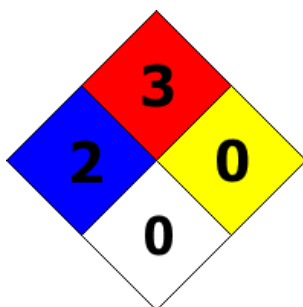
Use explosion-proof electrical/ventilating/light/.../equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash skin thoroughly after handling.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
In case of fire: Use agents recommended in section 5 for extinction.  
In case of fire: Use ... for extinction.  
IF ON SKIN: Wash with soap and water.  
Specific treatment (see supplemental first aid instructions on this label).  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.  
Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Store in a well ventilated place. Keep cool.  
Dispose of contents and container to an approved waste disposal plant.

### Other Non-GHS Classification:

#### WHMIS



#### NFPA/HMIS



NFPA SCALE (0-4)

|                     |   |
|---------------------|---|
| Health              | 2 |
| Flammability        | 3 |
| Physical Hazard     | 0 |
| Personal Protection | X |

HMIS RATINGS (0-4)

### SECTION 3: Composition/information on ingredients

| Ingredients: |            |      |
|--------------|------------|------|
| CAS 64-17-5  | Ethanol    | 95 % |
| CAS 90-15-3  | 1-Naphthol | 5 %  |

Percentages are by weight

### SECTION 4: First aid measures

#### Description of first aid measures

##### After inhalation:

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Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. If breathing is difficult give oxygen. Immediately get medical assistance.

### After skin contact:

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

### After eye contact:

Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush exposed eye gently using water for 15-20 minutes. Immediately get medical assistance.

### After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

### Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.

### Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Water spray can keep containers cool.

#### Unsuitable extinguishing agents: None

### Special hazards arising from the substance or mixture:

Moderate explosion hazard. Dangerous fire hazard when exposed to heat, sparks, and open flames.

### Advice for firefighters:

#### Protective equipment:

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

#### Additional information (precautions):

Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

### Environmental precautions:

Prevent from reaching drains, sewer or waterway. Ethanol has a slight acute and chronic toxicity to aquatic life.

### Methods and material for containment and cleaning up:

If necessary use trained response staff or contractor. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Remove all sources of ignition. Contain spill. Absorb with suitable material and place in chemical waste container. Ventilate area of spill. Use non-sparking equipment. Dispose of empty containers as unused product. Refer to Section 13.

### Reference to other sections: None

## SECTION 7: Handling and storage

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### Precautions for safe handling:

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes, and clothing. Empty containers can still be hazardous since they retain product residue.

### Conditions for safe storage, including any incompatibilities:

Store in a cool location. Store in a secure flammable storage area away from sources of ignition. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Keep container tightly sealed. Store with like hazards. Protect from freezing and physical damage.

## SECTION 8: Exposure controls/personal protection



### Control Parameters:

64-17-5, Ethanol, Denatured , ACGIH TLV: 1880mg/m3.  
64-17-5, Ethanol, Denatured , OSHA PEL: 1900mg/m3.

### Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area.

### Respiratory protection:

Use suitable respiratory protective device when high concentrations are present. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn.

### Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.

### Eye protection:

Safety glasses with side shields or goggles.

### General hygienic measures:

Wash hands before breaks and at the end of work. Perform routine housekeeping to prevent dust generation. Before wearing wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

## SECTION 9: Physical and chemical properties

|  |                           |   |  |
|--|---------------------------|---|--|
| <b>Appearance (physical state, color):</b> | Colorless to brown liquid | <b>Explosion limit lower:</b>                   | 3.3  |
| <b>Odor:</b>                               | Alcohol                   | <b>Explosion limit upper:</b>                   | 19.0   |
| <b>Odor threshold:</b>                     | Not Determined            | <b>Vapor pressure at 20°C:</b>                  | 59 hPa @ 20C   |
| <b>pH-value:</b>                           | Not Determined            | <b>Vapor density:</b>                           | 1.59   |
| <b>Melting/Freezing point:</b>             | -90°C                     | <b>Relative density:</b>                        | Approx. 0.8  |
| <b>Boiling point/Boiling range:</b>        | 77°C                      | <b>Solubilities:</b>                            | Infinite solubility.                                       |
| <b>Flash point (closed cup):</b>           | 17°C                      | <b>Partition coefficient (n-octanol/water):</b> | -0.32 (log Pow)  |
| <b>Evaporation rate:</b>                   | 3.6                       | <b>Auto/Self-ignition temperature:</b>          | 362.8°C  |
| <b>Flammability (solid, gaseous):</b>      | Flammable                 | <b>Decomposition temperature:</b>               | Not Determined   |
|  |                           | <b>Viscosity:</b>                               | a. Kinematic: Not Determined<br>b. Dynamic: Not Determined |

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Density at 20°C: Not Determined

### SECTION 10: Stability and reactivity

**Reactivity:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

Vapours may form explosive mixture with air.

**Conditions to avoid:**

Excessive heat. Incompatible materials. Ignition sources. Open Flames.

**Incompatible materials:**

Strong oxidizers, heat, sparks, open flames, platinum, sodium, bromine pentafluoride, potassium dioxide, acetyl bromide, acetyl chloride.

**Hazardous decomposition products:**

Carbon oxides (CO, CO<sub>2</sub>). Acrid and irritating fumes.

### SECTION 11: Toxicological information

**Acute Toxicity:**

**Oral:**

LD- 50 Rat: 1,870 mg/kg (1-Naphthol)

LD-50 Rat: 5628 mg/kg (Ethanol)

**Chronic Toxicity:** No additional information.

**Corrosion Irritation:** No additional information.

**Sensitization:** No additional information.

**Numerical Measures:** No additional information.

**Carcinogenicity:** No additional information.

**Mutagenicity:** No additional information.

**Reproductive Toxicity:** No additional information.

### SECTION 12: Ecological information

**Ecotoxicity:**

Aquatic Tox.: Ethanol has a slight acute and chronic toxicity to aquatic life.

**Persistence and degradability:**

No information Available.

**Bioaccumulative potential:**

No information Available.

**Mobility in soil:**

Aqueous solution has high mobility in soil.

**Other adverse effects:**

None identified.

### SECTION 13: Disposal considerations

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### Waste disposal recommendations:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Absorb with suitable absorbent material such as sand or earth and containerize for disposal. Ventilate area of leak or spill. Have fire extinguishing agent available in case of fire. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

## SECTION 14: Transport information

### US DOT

#### UN Number:

ADR, ADN, DOT, IMDG, IATA

UN1170

#### Limited Quantity Exception:

None

#### Bulk:

**RQ (if applicable):** None

**Proper shipping Name:** Ethanol.

**Hazard Class:** None

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

#### Non Bulk:

**RQ (if applicable):** None

**Proper shipping Name:** Ethanol.

**Hazard Class:** None

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

## SECTION 15: Regulatory information

### United States (USA)

#### SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic, Fire

#### SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

#### RCRA (hazardous waste code):

None of the ingredients are listed.

#### TSCA (Toxic Substances Control Act):

All ingredients are listed.

#### CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients are listed.

### Proposition 65 (California):

#### Chemicals known to cause cancer:

None of the ingredients are listed.

#### Chemicals known to cause reproductive toxicity for females:

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None of the ingredients are listed.

#### Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

#### Chemicals known to cause developmental toxicity:

64-17-5 Ethanol.

#### Canada

##### Canadian Domestic Substances List (DSL):

All ingredients are listed.

##### Canadian NPRI Ingredient Disclosure list (limit 0.1%):

64-17-5 Ethanol.

##### Canadian NPRI Ingredient Disclosure list (limit 1%):

90-15-3 1-Naphthol.

### SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:** None

#### Abbreviations and Acronyms:

IMDG International Maritime Code for Dangerous Goods.  
PNEC Predicted No-Effect Concentration (REACH).  
CFR Code of Federal Regulations (USA).  
SARA Superfund Amendments and Reauthorization Act (USA).  
RCRA Resource Conservation and Recovery Act (USA).  
TSCA Toxic Substances Control Act (USA).  
NPRI National Pollutant Release Inventory (Canada).  
DOT US Department of Transportation.  
IATA International Air Transport Association.  
GHS Globally Harmonized System of Classification and Labelling of Chemicals.  
ACGIH American Conference of Governmental Industrial Hygienists.  
CAS Chemical Abstracts Service (division of the American Chemical Society).  
NFPA National Fire Protection Association (USA).  
HMIS Hazardous Materials Identification System (USA).  
WHMIS Workplace Hazardous Materials Information System (Canada).  
DNEL Derived No-Effect Level (REACH).

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