

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 1 of 9

**Methylene Blue, Loeffler's**

## SECTION 1: Identification

### Product identifier

**Product name:** Methylene Blue, Loeffler's

**Product code:** S25432

### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

### Manufacturer or supplier details

<b>Manufacturer:</b>	<b>Supplier:</b>
<b>United States</b>	<b>United States</b>
AquaPhoenix Scientific	Fisher Science Education
860 Gitts Run Road	6771 Silver Crest Road
Hanover	Nazareth
PA 17331	PA 18064
(717) 632-1291	800 955-1177

### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

## SECTION 2: Hazard(s) identification

### GHS classification:

Flammable liquids, category 2

Eye irritation, category 2B

### Label elements

#### Hazard pictograms:



**Signal word:** Danger

### Hazard statements:

H225 Highly flammable liquid and vapor.

H320 Causes eye irritation.

### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/light/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash skin thoroughly after handling.

P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 2 of 9

## Methylene Blue, Loeffler's

with water/shower.

P370+P378 In case of fire: Use agents recommended in section 5 for extinction.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P403+P235 Store in a well ventilated place. Keep cool.

P501 Dispose of contents and container as instructed in Section 13.

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 64-17-5	Ethanol	30
CAS number: 7732-18-5	Water	>68
CAS number: 7220-79-3	Methylene Blue	<1
CAS number: 1310-58-3	Potassium Hydroxide	<1

**Additional Information:** None

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

Not determined or not applicable.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

##### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

Remove contact lens(es) if able to do so during rinsing

Seek medical attention if irritation persists or if concerned

##### After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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

##### Acute symptoms and effects:

Not determined or not applicable.

##### Delayed symptoms and effects:

Not determined or not applicable.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not applicable.

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 3 of 9

## Methylene Blue, Loeffler's

### Notes for the doctor:

Not determined or not applicable.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Vapors can flow to distant ignition sources and flashback

Liquid is volatile and may generate an explosive atmosphere

### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols

Avoid contact with skin, eyes and clothing

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation

Ensure air handling systems are operational

Beware of vapors accumulating to form explosive concentrations

Vapors can accumulate in low areas

### Environmental precautions:

Should not be released into the environment

Prevent from reaching drains, sewer or waterway

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

Wear protective eye wear, gloves and clothing

Use spark-proof tools and explosion-proof equipment

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

Avoid breathing mist or vapor.

Use only non-sparking tools.

Take precautionary measures against electrostatic discharges.

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

Store in a cool, well-ventilated area.

Keep container tightly sealed.

Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.

Store locked up.

Use appropriate containment to avoid environmental contamination.

Protect from freezing and physical damage.

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 4 of 9

## Methylene Blue, Loeffler's

### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

#### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Ethanol	64-17-5	ACGIH TLV TWA 1,000 ppm
	Ethanol	64-17-5	ACGIH TLV STEL 1,000 ppm
	Potassium Hydroxide	1310-58-3	ACGIH TLV C 2.0 mg/m <sup>3</sup>
United States (OSHA)	Ethanol	64-17-5	OSHA PEL TWA 1,000 ppm
	Ethanol	64-17-5	OSHA PEL TWA 1,900 mg/m <sup>3</sup>
NIOSH	Ethanol	64-17-5	NIOSH REL TWA 1,000 ppm
	Ethanol	64-17-5	NIOSH REL TWA 1,900 mg/m <sup>3</sup>
	Potassium Hydroxide	1310-58-3	NIOSH REL C 2.0 mg/m <sup>3</sup>

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

#### Information on monitoring procedures:

Not determined or not applicable.

#### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Use explosion-proof ventilation equipment.

#### Personal protection equipment

##### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

##### Skin and body protection:

Select glove material impermeable and resistant to the substance.

##### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

#### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance	Blue liquid
Odor	Alcohol odor
Odor threshold	Not available
pH	Not available
Melting point/freezing point	Not available
Initial boiling point/range	92 °C
Flash point (closed cup)	16.66 °C
Evaporation rate	> 1
Flammability (solid, gas)	Flammable
Upper flammability/explosive limit	Not available

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 5 of 9

## Methylene Blue, Loeffler's

<b>Lower flammability/explosive limit</b>	Not available
<b>Vapor pressure</b>	40 mmHg at 19 °C
<b>Vapor density</b>	1.59
<b>Density</b>	Not available
<b>Relative density</b>	0.9
<b>Solubilities</b>	Not determined or not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto/Self-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available
<b>Dynamic viscosity</b>	Not available
<b>Kinematic viscosity</b>	Not available
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

### Other information

## SECTION 10: Stability and reactivity

### Reactivity:

Does not react under normal conditions of use and storage.

### Chemical stability:

Stable under normal conditions of use and storage.

### Possibility of hazardous reactions:

None under normal conditions of use and storage.

### Conditions to avoid:

Excess heat, ignition source or flames.

### Incompatible materials:

None known.

### Hazardous decomposition products:

None known.

## SECTION 11: Toxicological information

### Acute toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

#### Substance data:

Name	Route	Result
Potassium Hydroxide	oral	LD50 - Rat - 333 mg/kg

### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

#### Substance data:

Name	Result
Potassium Hydroxide	Causes severe skin burns and eye damage.

### Serious eye damage/irritation

**Assessment:** Causes eye irritation

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 6 of 9

## Methylene Blue, Loeffler's

**Product data:** No data available.

**Substance data:** No data available.

### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### International Agency for Research on Cancer (IARC):

Name	Classification
Ethanol	Group 1 - Carcinogenic to humans

**National Toxicology Program (NTP):** None of the ingredients are listed.

### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 7 of 9

## Methylene Blue, Loeffler's

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

## SECTION 14: Transport information

### United States Transportation of dangerous goods (49 CFR DOT)

<b>UN number</b>	UN 1170
<b>UN proper shipping name</b>	Ethanol Solution
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

### International Maritime Dangerous Goods (IMDG)

<b>UN number</b>	UN 1170
<b>UN proper shipping name</b>	Ethanol Solution
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

<b>UN number</b>	UN 1170
<b>UN proper shipping name</b>	Ethanol Solution
<b>UN transport hazard class(es)</b>	3 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 8 of 9

## Methylene Blue, Loeffler's

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None

## SECTION 15: Regulatory information

### United States regulations

#### Inventory listing (TSCA):

64-17-5	Ethanol	Listed
7732-18-5	Water	Listed
7220-79-3	Methylene Blue	Not Listed
1310-58-3	Potassium Hydroxide	Listed

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

#### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

**SARA Section 313 toxic chemicals:** Not determined.

#### CERCLA:

1310-58-3	Potassium Hydroxide	Listed	1000
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**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

#### Massachusetts Right to Know:

1310-58-3	Potassium Hydroxide	Listed
1936-15-8	Orange G	Not Listed
3761-53-3	Ponceau Xylidine	Listed
64-17-5	Ethanol Ethyl alcohol	Listed
7220-79-3	Methylene Blue	Not Listed
7732-18-5	Water	Not Listed

#### New Jersey Right to Know:

1310-58-3	Potassium Hydroxide	Not Listed
1936-15-8	Orange G	Not Listed
3761-53-3	Ponceau Xylidine	Listed
64-17-5	Ethanol Ethyl alcohol	Not Listed
7220-79-3	Methylene Blue	Not Listed

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.28.2017

Page 9 of 9

## Methylene Blue, Loeffler's

7732-18-5	Water	Not Listed
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### New York Right to Know:

1310-58-3	Potassium Hydroxide	Listed
1936-15-8	Orange G	Not Listed
3761-53-3	Ponceau Xylidine	Listed
64-17-5	Ethanol Ethyl alcohol	Listed
7220-79-3	Methylene Blue	Not Listed
7732-18-5	Water	Not Listed

### Pennsylvania Right to Know:

1310-58-3	Potassium Hydroxide	Listed
1936-15-8	Orange G	Not Listed
3761-53-3	Ponceau Xylidine	Listed
64-17-5	Ethanol Ethyl alcohol	Listed
7220-79-3	Methylene Blue	Not Listed
7732-18-5	Water	Not Listed

**California Proposition 65:** None of the ingredients are listed.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

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. 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.

**NFPA:** 2-3-2

**HMIS:** 2-3-2

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**End of Safety Data Sheet**