

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

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

Manufacturer:

United States

AquaPhoenix Scientific

860 Gitts Run Road

Hanover

PA 17331

(717) 632-1291

Supplier:

United States

Fisher Science Education

6771 Silver Crest Road

Nazareth

PA 18064

800 955-1177

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard 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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 2 of 9

Methylene Blue, Loeffler's

P264 Wash skin thoroughly after handling.

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

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 ingestion:

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 available.

Delayed symptoms and effects:

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 3 of 9

Methylene Blue, Loeffler's

Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available.

SECTION 5: Fire-fighting 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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 4 of 9

Methylene Blue, Loeffler's

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.

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 ³
United States (OSHA)	Ethanol	64-17-5	OSHA PEL TWA 1,000 ppm
	Ethanol	64-17-5	OSHA PEL TWA 1,900 mg/m ³
NIOSH	Ethanol	64-17-5	NIOSH REL TWA 1,000 ppm
	Ethanol	64-17-5	NIOSH REL TWA 1,900 mg/m ³
	Potassium Hydroxide	1310-58-3	NIOSH REL C 2.0 mg/m ³

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

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 5 of 9

Methylene Blue, Loeffler's

Information on basic physical and chemical properties

Appearance (physical state, color):	Blue liquid
Odor:	Alcohol odor
Odor threshold:	Not available
pH-value:	Not available
Melting/Freezing point:	Not available
Boiling point/range:	92 °C
Flash point:	16.66 °C
Evaporation rate:	> 1
Flammability (solid, gaseous):	Flammable
Explosion limit upper:	Not available
Explosion limit lower:	Not available
Vapor pressure:	40 mmHg at 19 °C
Vapor density:	1.59
Density:	Not available
Relative density:	0.9
Solubilities:	Not determined or not available.
Partition coefficient (n-octanol/water):	Not available
Auto/Self-ignition temperature:	Not available
Decomposition temperature:	Not available
Dynamic viscosity:	Not available
Kinematic viscosity:	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	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

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 6 of 9

Methylene Blue, Loeffler's

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

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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 7 of 9

Methylene Blue, Loeffler's

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.

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

Canadian Transportation of Dangerous Goods (TDG)

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

Safety Data Sheet


According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017


Page 8 of 9

Methylene Blue, Loeffler's

International Maritime Dangerous Goods (IMDG)

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

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

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

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

Canada regulations

Domestic substances list (DSL):

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

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 04.28.2017

Page 9 of 9

Methylene Blue, Loeffler's

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

Initial preparation date: 04.28.2017

End of Safety Data Sheet