SPI Supplies Division
Structure Probe, Inc.
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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: December 4, 2019

SPI Catalog # 02588-AA, 02588-AB
SPI-Chem™ Methylene Blue 1% in Ethanol

Section 1.1: Identification

Chemical Name/Synonyms ..... Methylene Blue solution

Product or Trade Name ..... SPI-Chem™ Methylene Blue 1% in Ethanol

CAS #'s 64-17-5; 7220-79-3

Section 1.2: Relevant Uses/Restrictions

Laboratory chemical; nuclear stain in plant and animal biology.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies
Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...
Worldwide phone: 1-(703)-741-5970
Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 2)
Eye irritation (Category 2A)

2.2 Label elements

Pictogram

Signal Word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor.
H319 Causes serious 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/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other Hazards:

Hazards not otherwise classified (HNOC) or not covered by GHS: none

Hazardous Material Information System USA

Health 2
Fire Hazard 3
Reactivity 0
Personal Protection .....

NFPA Rating (estimated)

Health 2
Flammability..... 3
Reactivity 0

Section 3: Composition

3.1 Substances: Material does not meet the criteria of a substance.

3.2 Mixtures:

Component	CAS Number	EC-No.	Concentration

Ethanol	64-17-5	200-578-6	99%
	Classification: Flammable Liquid, category 2		Eye Irritant, category 2A
Methylene chloride	7220-79-3	200-515-2	1%
	Classification: Acute Toxicity, category 4		

Section 4: First Aid Measures

4.1 Description of first aid measures:

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If inhaled, mover person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: In case of skin contact, wash off with soap and plenty of water. Consult a physician.

Eye Contact: In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media:

Suitable extinguishing media: water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture:

Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides, Hydrogen chloride gas.

5.3 Hazardous combustion products:

Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides, Hydrogen chloride gas.

5.4 Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

6.1 Personal precautions:

Use personal protective equipment.

Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Remove sources of ignition.
Evacuate personnel to safe areas.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
For personal protection, see Section 8.

6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

6.3 Methods and material for containment and cleaning up:

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see Section 13).

6.4 Reference to other sections:

For disposal, see Section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Avoid contact with skin and eyes.
Avoid inhalation of vapor or mist.
Use explosion-proof equipment.
Keep away from sources of ignition – No smoking.
Take measures to prevent the build-up of electrostatic charge.
For precautions, see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class: Flammable liquids.

7.3 Specific end uses:

Laboratory chemical; nuclear stain in plant and animal biology.

This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection:
Workplace exposure limits:

Component: Ethanol CAS # 64-17-5

ACGIH (USA) TLV
TWA 1,000.000000 ppm
Remarks: Upper Respiratory Tract irritation
Confirmed animal carcinogen with unknown relevance to humans

OSHA (USA) – Table Z-1 Limits for Air Contaminants 1910.1000
TWA 1,000.000000 ppm 1,900.000000 mg/m^e
Remarks: The value in mg/m^3 is approximated.

NIOSH (USA) Recommended Exposure Limits
TWA 1,000.000000 ppm 1.900.000000 mg/m^3

ACGIH (USA) Threshold Limit Values (TLV)
STEL 1,000.000000
Remarks: Upper Respiratory Tract irritation

Confirmed animal carcinogen with unknown relevance to humans.

Biological limit values: No data available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

8.2.2 Individual protection measures:

Eye/face Protection:

Face shield and safety glasses.
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) OR EN 166 (EU).

Skin protection:

Handle with gloves.
Gloves must be inspected prior to use.
Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this material.
Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hand.

Body protection:

Impervious clothing, flame retardant antistatic clothing.
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 143878) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, sue a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.3 Environmental exposure controls:

Prevent further leakage or spillage if safe to do so.
Do not let product enter the drains.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance: Clear blue liquid

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/Freezing point: No data available

Boiling point/Boiling point range: No data available

Flash Point: 14 °C (57 °F – closed cup

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Pressure: No data available

Vapor density: No data available

Relative density: No data available

Solubility: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing Properties: No data available

9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical Stability: Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions: Vapors may form explosive mixture with air.

10.4 Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials: Strong oxidizing agents, Alkali metals, Ammonia, Peroxides.

10.6 Hazardous decomposition products: No data available
In the event of fire: see Section 5.

Section 11: Toxicological Information

11.1 Information on toxicological effects:

A. Acute toxicity: No data available

B. Skin corrosion/irritation: No data available

C. Serious eye damage/irritation: No data available

D. Respiratory or skin sensitization: No data available

E. Germ cell mutagenicity: No data available

F. Carcinogenicity:
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

G. Reproductive toxicity: No data available

H. STOT-single exposure: No data available

I.. STOT-repeated exposure: No data available

J. Aspiration hazard: No data available

Section 12: Ecological Information

12.1 Toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bio-accumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted.

12.6 Other adverse effects: No data available

Section 13: Disposal Considerations

13.1 Waste treatment methods:

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber, but exert extra care in igniting as this material is high flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

Section 14: Transport Information

DOT:

UN Number:	UN 1170
Class:	3
Packing group:	II
Proper shipping name:	Ethanol solutions
Poison Inhalation Hazard:	No

IATA:

UN Number:	UN 1170
Class:	3
Packing group:	II

Proper shipping name: Ethanol solution

IMDG:

UN Number:	UN 1170
Class:	3
Packing group:	II
EMS-No:	F-E, S-D
Proper shipping name:	ETHANOL SOLUTION

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:

U.S. Government Regulations:

SARA 302 Components:
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components:

Ethanol	CAS # 64-17-5	Revision Date 2007-03-01

Pennsylvania Right To Know Components:

Ethanol	CAS # 64-17-5	Revision Date 2007-03-01

New Jersey Right To Know Components:

Ethanol	CAS # 64-17-5	Revision Date 2007-03-01

California Prop. 65 Components:
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

Date of Preparation: 04 December 2019

Abbreviations and acronyms
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
CMRG: Chemical Manufacturer's Recommended Guidelines
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulative and Toxicological
vPvB: very Persistent and very Bio-accumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
ATE: Acute Toxicity Estimates
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short Term Exposure Limit
CEIL: Ceiling
TSCA: Toxic Substances Control Act (USA)
DSL: Domestic Substances List (Canada)
PICCS: Philippine Inventory of Chemicals and Chemical Substances
ENCS: Existing and New Chemical Substances (Japan)
AICS: Australian Inventory of Chemical Substances
IECSC: Inventory of Existing Chemical Substances in China
KECL: Korea Existing Chemicals List

Section 16: Other Information

Disclaimer of Liability:

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