

**METHYLENE BLUE GABBOTS SOLUTION****MATERIAL SAFETY DATA SHEET
SDS/MSDS****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Methylene Blue Gabbots Solution

Product code : 865670

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
Ansari Road Daryaganj
New Delhi-110002
INDIA

Telephone : +91 11 49404040

Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****2.1.1. Classification according to Regulation (EC) No. 1272/2008 (CLP)**

Hazard class and category code:

Flam. Liq. 2

H225

Skin Corr. 1A

H314

Hazard statement*:

2.1.2. Additional information

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*For full text of Hazard- and EU Hazard-statements: see Section 16.

2.2. Label elements

Product identification:

Methylene Blue Gabbots Solution

Identification number:

-

Authorization number.:

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Hazard pictograms:



GHS02

GHS05

Signal word:

Danger

Hazard statement:

H225 Highly flammable liquid and vapor.

H314 Causes severe skin burns and eye damage.

Precautionary statement:	P210 Keep away from heat, hot sparks, open flames and other ignition sources. No smoking.
	P280 Wear protective gloves/protective clothing/eye/protection/face protection.
Supplemental hazard information (EU):	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.

2.3. Other hazards

Endocrine Disrupting Properties:

No known endocrine disrupting properties

Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Classification	Concentration
Ethanol		
CAS-No. 64-17-5	Flam. Liq. 2; H225	30 – 50 %
EC-No. 200-578-6		
Index-No. 603-002-00-5		
Sulphuric acid, 96%		
CAS-No. 7664-93-9	Skin Corr. 1A; H314	17 - 20%
EC-No. 231-639-5		
Index-No. 016-020-00-8		

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

If the suggested first aid measures do not prove sufficient, seek medical attention.

Following inhalation

Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.

Following skin contact

Remove all contaminated clothes using sterile gauze. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.

Following eye contact

Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.

Following ingestion

Rinse the oral cavity, drink 1-2 glasses of water. Do not induce vomiting. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.

Self-protection of the first aider

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

Following inhalation

Depending on concentration and exposure time, irritation of the mucous membrane of the nose/throat may occur (burning sensation, urge to sneeze, runny nose). High concentration levels may cause difficult breathing, coughing, chest tightness, headache, pneumonia and pulmonary oedema.

Following skin contact

Depending on concentration and exposure time, redness accompanied by sensation of stinging and pain may occur, defatting, skin cracking, rash, swelling, burns, blisters and delayed onset of inflammations.

Following eye contact

Depending on concentration and exposure time, mucosa stinging, lacrimation, redness and pain may occur, as well as bleeding, delayed onset of inflammations and permanent eyesight damage.

Following ingestion

Depending on concentration and exposure time, stinging and possible damage to the mucous membrane of the digestive tract is possible, as well as abdominal pain, nausea, vomiting (bloody vomit is possible), vertigo, headache, eyesight disorders and permanent blindness due to optical nerve damage, loss of consciousness.

4.3. Indication of any immediate medical attention and special treatment needed

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SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, dry powder, CO₂, alcohol-resistant foam

Unsuitable extinguishing media: No information available

5.2. Special hazards arising from the substance or mixture

Hazardous byproducts of fire: No information available

5.3. Advice for firefighters

Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing. Cool closed containers exposed to fire with water spray, in order to prevent explosion.

5.4. Additional information

Remove sources of heat and ignition.

Do not contaminate the environment with extinguishing media.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. Advice for non-emergency personnel:

Protective equipment

Use personal protective equipment (see Section 8).

Accident prevention methods

Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Remove all sources of sparks and ignition. Do not smoke.

Emergency procedures

Mark the area using proper signs.

6.1.2. For emergency responders:

Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8).

6.2. Environmental precautions:

Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.

6.3. Methods and materials for containment and cleaning up

6.3.1. Bunding, covering of drains; capping procedures:

Sand or clay barriers.

6.3.2. Cleaning up

Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and involved materials with water.

6.3.3. Other information

Do not use sawdust, old cleaning rags, and tools that may cause sparks.

6.4. Reference to other sections

See Section 7 for information about secure handling.

See Section 8 for information about personal protective equipment.

See Section 13 for information about containment.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protection measures

Measures to prevent fire

Use in well ventilated storage rooms. Keep away from sources of heat and ignition. Carry out measures for preventing static electricity.

Measures to prevent aerosol and dust generation

Secure proper ventilation.

Measures to protect the environment

Prevent spilling into the sewage system and waterways.

Other measures

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7.1.2. Advice on general occupational hygiene:

Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in tightly closed and upright set containers in a well ventilated storage rooms at temperatures ranging from 15 to 25°C.

Packaging materials

Manufacturer's original packaging.

Requirements for storage and containers

Keep away from food and drink. Keep the containers tightly closed.

Advices for storage equipment

The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation.

Further information on storage conditions

Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 9).

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

No data available

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses

Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.

Structural measures to prevent exposure

No information available

Organisational measures to prevent exposure

Organization of work in order to reduce other worker's influence during work process.

Technical measures to prevent exposure

Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.

8.2.2. Personal protection equipment

8.2.2.1 Eye and face protection

Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face (EN 136) in case of higher levels of concentration in air.

8.2.2.2 Skin protection

The protective gloves have to satisfy the specification of Regulation (EU) 2016/425 and the related standard EN374.

Full contact:

Glove material: nitrile rubber

Glove thickness: 0.40 mm

Hand protection:

Time until perforation: > 480 min Splash contact:

Gloves material: nitrile rubber Glove thickness: 0.11 mm

Time until perforation: >240 min

Other skin protection

Wear antistatic clothing made of natural fibers (such as cotton) with long sleeves (EN ISO 13688), and shoes (EN 13832) that cover the entire foot.

8.2.2.3 Respiratory protection

Suitable mask or half mask (EN 140) equipped with a combined "A-K" filter (EN 14387) and used when concentration levels exceed GVI.

8.2.2.4 Thermal hazards

No information available

8.2.3 Environmental exposure controls

Substance/mixture related measures to prevent exposure:

See Section 6

Structural measures to prevent exposure

Use modern equipment.

Organisational measures to prevent exposure

Adapt the work process to the required working conditions of the workplace.

Technical measures to prevent exposure:

See Section 6

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

a)	Physical state:	liquid
b)	Color:	blue
c)	Odour/odour threshold:	biting/no information available
d)	Melting point / freezing point:	No information available
e)	Boiling point or initial boiling point and boiling range:	No information available
f)	Flammability:	No information available
g)	Lower and upper explosion limit:	No information available
h)	Flash point:	29 °C
i)	Auto-ignition temperature:	No information available
j)	Decomposition temperature:	No information available
k)	pH:	No information available
l)	Kinematic viscosity:	No information available
m)	Solubility:	No information available
n)	Partition coefficient n-octanol/water (log value):	No information available
o)	Vapour pressure:	No information available
p)	Density and/or relative density:	No information available
q)	Relative vapour density:	No information available
r)	Particle characteristics:	No information available

9.2. Other information

No data available

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

See subsections 10.3 through 10.5.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions of storing and using (room temperature).

10.3. Possibility of hazardous reactions

Formaldehyde vapors and air can cause explosive mixtures.

10.4. Conditions to avoid

Sources of heat, sparks, ignition, and low temperature.

10.5. Incompatible materials

Alkali metals, oxidants, acids and alkalis, hydrogen peroxide, phenols, iodine, iron, copper and silver compounds.

10.6. Hazardous decomposition products

Carbon monoxide and formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity**

Route of exposure:	Method	Species	Effective Dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposure time	Results
Oral:	No information available	rat	LD ₅₀	No information available	7.060 mg/kg (ethanol)
Dermal:	No information available	rabbit	LD ₅₀	No information available	>20.000 mg/kg (ethanol)
Inhalation:	No information available	rat	LC ₅₀	No information available	>8.000 mg/l (ethanol)

Specific target organ toxicity - single exposure (STOT-SE):

No data available

Aspiration hazard

No information available.

Irritation and corrosion

	Exposure time	Species	Evaluation	Method	Note
Skin corrosion/irritation:	-	-	-	-	causes skin corrosion
Serious eye damage/irritation:	-	-	-	-	-

Sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Allergic persons may display irritation.

Symptoms related to the physical, chemical and toxicological characteristics**Oral exposure:**

Depending on concentration and exposure time, stinging and possible damage to the mucous membrane of the digestive tract is possible, as well as abdominal pain, nausea, vomiting (bloody vomit is possible), vertigo, headache, eyesight disorders and permanent blindness due to optical nerve damage, loss of consciousness.

Dermal exposure

Depending on concentration and exposure time, redness accompanied by sensation of stinging and pain may occur, defatting, skin cracking, rash, swelling, burns, blisters and delayed onset of inflammations.

Inhalation exposure

Depending on concentration and exposure time, irritation of the mucous membrane of the nose/throat may occur (burning sensation, urge to sneeze, runny nose). High concentration levels may cause difficult breathing, coughing, chest tightness, headache, pneumonia and delayed pulmonary oedema (up until 48 hours).

Eye exposure

Depending on concentration and exposure time, mucosa stinging, lacrimation, redness and pain may occur, as well as bleeding, delayed onset of inflammations and permanent eyesight damage.

Repeated dose toxicity (subacute, subchronic, chronic)

No data available

Specific target organ toxicity - repeated exposure (STOT-RE):

No data available

11.2. Information on other hazards:**11.2.1 Endocrine disrupting properties:**

No known endocrine disrupting properties that affect human health.

11.2.2 Other information:

No data available

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity**

Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	Fish	No information available	8.140 mg/l (ethanol)	-
Crustacea:	EC ₅₀	48 hours	Daphnia magna	No information available	7.800 mg/l (ethanol)	-
Algae/aquatic plants	IC ₅₀	8 days	algae	No information available	5.000 mg/l (ethanol)	-
Other organisms	-	-	-	-	-	-

Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Based on available data, the product does not contain any PBT or vPvB substances.

12.6 Endocrine disrupting properties

Based on available data, does not contain endocrine disruptors.

12.7 Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product/Packaging disposal:

Waste material must be disposed of according to the national and local rules and regulations. Do not mix with other sorts of waste. Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection.

13.1.2 Waste codes/waste designations according to Law

15 01 10*: packaging that contains residual hazardous substances or is contaminated with hazardous substances

13.1.3 Waste treatment – relevant information

No information available

13.1.4 Sewage disposal – relevant information

Waste must not be disposed of into the sewage system.

13.1.5 Other disposal recommendations

Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge.

13.1.6 Relevant Community provisions

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SECTION 14. TRANSPORT INFORMATION

Land transport (ADR)

UN number:	2924
UN proper shipping name:	Flammable liquid, corrosive, n.o.s. (ethanol, sulphuric acid)
Transport hazard class(es):	3 (8)
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-

Land transport by rail (RID)

UN number:	2924
UN proper shipping name:	Flammable liquid, corrosive, n.o.s. (ethanol, sulphuric acid)
Transport hazard class(es):	3 (8)
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-

Inland waterway transport (ADN)

UN number:	2924
UN proper shipping name:	Flammable liquid, corrosive, n.o.s. (ethanol, sulphuric acid)
Transport hazard class(es):	3 (8)
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-

Sea transport (IMDG)

UN number:	2924
UN proper shipping name:	Flammable liquid, corrosive, n.o.s. (ethanol, sulphuric acid)
Transport hazard class(es):	3 (8)
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-

Air transport (ICAO-TI/IATA-DGR)

UN number:	2924
UN proper shipping name:	Flammable liquid, corrosive, n.o.s. (ethanol, sulphuric acid)
Transport hazard class(es):	3 (8)
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-

Further information -

SECTION 15. REGULATORY INFORMATION

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

EU regulations

Authorization and/or restrictions of use

Authorizations -

Restrictions -

Other EU regulations

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC;

Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC;

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work;

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006;

REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);

Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

National regulation

Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act

15.2 Chemical safety assessment

None

SECTION 16. OTHER INFORMATION

16.1 Indication of changes

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16.2 Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

16.3 Key literature references and source of data:

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16.4 Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)

Classification

Classification procedure

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16.5 Relevant H statements (number and full text)

H: **H225**

Highly flammable liquid and vapour.

H314

Causes severe skin burns and eye damage.

16.6 Training advice:

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16.7 Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.