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## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 1. Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Trade name : ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

Product code : E0092500001

Identification of the product : Ethidium bromide  
 CAS No :1239-45-8  
 EC No :214-984-6  
 Annex No :612-278-00-6

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

Use : Industrial. For professional use only.

##### 1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM  
 Chaitanya Tower, 2nd Floor, Office # 206,  
 Siddharth Nagar, S.V. Road,  
 Goregaon (West), Mumbai - 400062,  
 Maharashtra, India.  
 Contact: +91 22 28725393 / 94 / 95  
 Email ID: info@suvchem.com/care@suvchem.com

##### 1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

#### 2. Hazards identification -DSD

##### 2.1. Classification of the substance or mixture

##### Classification EC 67/548 or EC 1999/45

Classification : Muta. Cat. 3; R68  
 T+; R26  
 Xn; R22

##### Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Germ cell mutagenicity - Category 2 - Warning (CLP : Muta. 2) H341  
 Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302  
 Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330

##### 2.2. Label elements

##### Labelling EC 67/548 or EC 1999/45

## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 2. Hazards identification -DSD (continued)

Symbol(s)



Symbol(s)

: T+ : Very toxic

R Phrase(s)

: R22 : Harmful if swallowed.  
 R26 : Very toxic by inhalation.  
 R68 : Possible risks of irreversible effects.

S Phrase(s)

: S1/2 : Keep locked up and out of reach of children.  
 S28 : After contact with skin, wash immediately with  
 S36/37 : Wear suitable protective clothing and gloves.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).  
 S63 : In case of accident by inhalation : remove casualty to fresh air and keep at rest.

#### Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words

: Danger

Hazard statements

: H330 : Fatal if inhaled.  
 H341 : Suspected of causing genetic defects.  
 H302 : Harmful if swallowed.

Precautionary statements

• General

: P102: Keep out of reach of children.  
 P103: Read label before use.  
 P101: If medical advice is needed, have product container or label at hand.  
 P201: Obtain special instructions before use.

• Prevention

: P284: Wear respiratory protection.  
 P271: Use only outdoors or in a well-ventilated area.  
 P260: Do not breathe dust, fume, gas, mist, vapours, spray.  
 P264: Wash thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.

• Response

: P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.  
 P308+P313: If exposed or concerned : get medical advice.  
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

• Storage

: P403+P233: Store in well-ventilated place. Keep container tightly closed.  
 P405: Store locked up.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 2. Hazards identification -DSD (continued)

##### 2.3. Other hazards

**Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

#### 3. Composition/information on ingredients

**Substance / Preparation** : Ethidium bromide  
 CAS No :1239-45-8  
 EC No :214-984-6  
 Annex No :612-278-00-6  
 Substance.

Contains no other components or impurities which will influence the classification of the product.

#### 4. First aid measures

##### 4.1. Description of first aid measures

**Inhalation** : Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see on this label).

**Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

**Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion** : Obtain emergency medical attention. Call a POISON CENTER or doctor if you feel unwell. Do NOT induce vomiting. Rinse mouth.

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

**Symptoms relating to use** : Suspected of causing genetic defects.  
 Fatal if inhaled.  
 Swallowing a small quantity of this material will result in serious health hazard.

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

**General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

#### 5. Fire-fighting measures

##### 5.1. Extinguishing media

## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 5. Fire-fighting measures (continued)

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media** : Do not use a heavy water stream.
- Surrounding fires** : Use water spray or fog for cooling exposed containers.

#### 5.2. Special hazards arising from the substance or mixture

- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

#### 5.3. Advice for fire-fighters

- Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

#### 6. Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection. Ventilate area.
- For non-emergency personnel** : Evacuate unnecessary personnel.

##### 6.2. Environmental precautions

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

##### 6.3. Methods and material for containment and cleaning up

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

##### 6.4. Reference to other sections

See section 8. Exposure controls/personal protection

#### 7. Handling and storage

##### 7.1. Precautions for safe handling

- Handling** : Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not breathe dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protective equipment as required.

## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 7. Handling and storage (continued)

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

##### 7.2. Conditions for safe storage, including any incompatibilities

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

##### 7.3. Specific end use(s)

**Specific end use(s)** : None.

#### 8. Exposure controls/personal protection

##### 8.1. Exposure controls

**Personal protection** : Avoid all unnecessary exposure.

- **Respiratory protection** : Wear respiratory protection.
- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

##### 8.2. Control parameters

**Occupational Exposure Limits** : No data available.

#### 9. Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

**Physical state at 20 °C** : Solid.

**Colour** : Dark red crystals

**Odour** : N/A

**Odour threshold** : No data available.

**pH value** : No data available.

**Melting point [°C]** : 260 - 262 °C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : N/A

**Flammability (solid, gas)** : N/A

**Flash point [°C]** : N/A

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### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 9. Physical and chemical properties (continued)

Boiling point [°C]	: N/A
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A
Density [g/cm <sup>3</sup> ]	: N/A
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: N/A
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: 4 - 7 at 25 °C
Viscosity at 40°C [mm <sup>2</sup> /s]	: N/A

#### 9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

#### 10. Stability and reactivity

##### 10.1. Reactivity

Reactivity	: Not established.
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##### 10.2. Chemical stability

Chemical stability	: Stable under recommended storage conditions.
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##### 10.3. Possibility of hazardous reactions

Hazardous reactions	: Not established.
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##### 10.4. Conditions to avoid

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
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##### 10.5. Incompatible materials

## MATERIAL SAFETY DATA SHEET (MSDS)

### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 10. Stability and reactivity (continued)

**Materials to avoid** : Strong acids. Strong bases.

##### 10.6. Hazardous decomposition products

**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.

#### 11. Toxicological information

##### 11.1. Information on toxicological effects

###### Acute toxicity

- Inhalation : Fatal if inhaled.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : Harmful if swallowed.

###### Corrosion

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

###### Irritation

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

###### Sensitization

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

###### Mutagenicity

: Suspected of causing genetic defects.

###### Carcinogenicity

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

###### Toxic for reproduction

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

###### STOT-single exposure

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

###### STOT-repeated exposure

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

###### Aspiration hazard

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

#### 12. Ecological information

##### 12.1. Toxicity

**Toxicity information** : Not established.

##### 12.2. Persistence - degradability

**Persistence - degradability** : Biodegradable.

##### 12.3. Bioaccumulative potential

**Bioaccumulative potential** : Not established.

##### 12.4. Mobility in soil

**Mobility in soil** : Not established.



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### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 12. Ecological information (continued)

##### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

##### 12.6. Other adverse effects

**Environmental precautions :** Avoid release to the environment.

#### 13. Disposal considerations

##### 13.1. Waste treatment methods

**General :** Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.  
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions :** Hazardous waste due to toxicity.

#### 14. Transport information

##### 14.1. Land transport (ADR-RID)

**Proper shipping name :** TOXIC SOLID, ORGANIC, N.O.S.  
**UN N° :** 2811  
**H.I. nr :** 66  
**ADR - Class :** 6.1  
**Labelling - Transport :** 6.1 : Toxic substances.



**ADR - Classification code :** T2  
**ADR - Group :** I  
**ADR - Packing instructions :** P002  
**ADR - Limited Quantity :** 0  
**ADR - Tunnel code :** C/E : Tank carriage: Passage forbidden through tunnels of category C, D and E.  
 Other carriage: Passage forbidden through tunnels of category E.



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### ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)

#### 14. Transport information (continued)



##### 14.2. Sea transport (IMDG) [English only]

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.  
 UN N° : 2811  
 IMO-IMDG - Class or division : 6.1 : Toxic substances.  
 IMO-IMDG - Packing group : I  
 IMO-IMDG - Packing instructions : P002  
 IMO-IMDG - Limited quantities : None  
 IMO-IMDG - Marine pollution : No  
 EMS-Nr : F-A S-A

##### 14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.  
 UN N° : 2811  
 IATA - Class or division : 6.1 : Toxic substances.  
 IATA - Packing group : I  
 IATA - Passenger and Cargo Aircraft : ALLOWED  
   - Passenger and Cargo - Packing instruction : 666  
   - Passenger and Cargo - Maximum Quantity/Packing : 5 kg  
 IATA - Cargo only : ALLOWED  
   - Cargo only - Packing instruction : 673  
   - Cargo only - Maximum Quantity/Packing : 50 kg  
 ERG-Nr : 6L

#### 15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.  
 REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

**MATERIAL SAFETY DATA SHEET (MSDS)**  
**ETHIDIUM BROMIDE (FOR MOLECULAR BIOLOGY)**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

**End of document**