SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-T-22293
Product Name	Ethidium Bromide
CAS No.	1239-45-8
Category	API
Synonyms	3,8-diamino-5-ethyl-6-phenylphenanthridin-5-ium bromide
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H302	Harmful if swallowed.
H330	Not available
H341	Not available
H331	Not available

Precautionary Statement(s)

Code	Statement
P203	Not available
P260	Not available
P264	Wash hands thoroughly after handling.
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Not available
P301+P317	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P316	Not available
P318	Not available
P320	Not available
P330	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P321	Specific treatment (see … on this label).

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Ethidium Bromide
CAS Number : 1239-45-8
Molecular Formula : C21H20BrN3
Molecular Weight : 394.31
Parent Chemical : Ethidium
Synonyms : 3,8-diamino-5-ethyl-6-phenylphenanthridin-5-ium bromide
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
General advice: Seek medical attention if symptoms occur or persist. Show this SDS to the physician.
Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.
Skin contact: Remove contaminated clothing and shoes. Wash skin with plenty of water and soap.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.
Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Not available.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Not available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media: Use extinguishing measures appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: Not available.

5.3 Advice for firefighters
Wear self-contained breathing apparatus and full protective gear. Avoid inhalation of combustion products. Cool containers with water spray if exposed to fire.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing dust. Avoid contact with skin and eyes. Use appropriate personal protective equipment.

6.2 Environmental precautions
Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up
Avoid generating dust. Collect spillage using methods that do not disperse dust. Place in a suitable, closed container for disposal. Clean contaminated area.

6.4 Reference to other sections
See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Store in a tightly closed container in a cool, dry, well-ventilated place. Protect from moisture. Incompatibilities: Not available.

7.3 Specific end use(s)
Not available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits: Not available.
Biological limit values: Not available.

8.2 Exposure controls
Engineering controls: Use local exhaust ventilation or other engineering controls to maintain airborne levels below applicable exposure limits (if established). Use in a well-ventilated area.
Personal protective equipment (PPE):
- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves. Protective clothing as appropriate.
- Respiratory protection: If dust or aerosols are generated, use appropriate respiratory protection.
Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.
Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available

Property	Value
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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
No data available.

10.4 Conditions to avoid
Avoid dust formation. Avoid incompatible materials. Other conditions: Not available.

10.5 Incompatible materials
Not available.

10.6 Hazardous decomposition products
Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: LC50 (rat) = 11,000-134,000 mg/m3/1hr /LABORATORY ANIMALS: Acute Exposure/ Homidium was a moderate eye irritant but not a skin irritant in the rabbit. /Homidium/
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ Peripheral nerve ultrastructure was assessed after single or multiple local injections of the intercalating dye ethidium bromide. Thirty-four adult Wistar rats of both sexes were divided into five groups and maintained in a controlled environment with rat chow and water ad libitum throughout the experiment. The experimental animals were injected with 1 microl of 0.1% ethidium bromide in 0.9% saline into the central third of the left sciatic nerve 1 (group 1), 2 (group 2), 4 (group 3), 6 (group 4) or 8 (group 5) times. In groups 2 to 5 the injections were made at 28-day intervals. Control animals received the same amount of 0.9% saline. The animals were killed at different times after injection: group 1 at 7 days (2 rats) and 15 days (2 rats); for groups 2, 3, 4 and 5, all rats were killed 10 days after the last injection and the lesions were investigated by light and transmission electron microscopy. In the acute lesions, intoxicated Schwann cells showed a vacuolated cytoplasm and separation of the sheaths from the axon. Myelin sheaths underwent progressive vesiculation and subsequent segmental demyelination. Myelin debris were withdrawn by macrophages and remyelination by Schwann cells was prominent. With the increase in the number of injections collagen fibers also increased in number and progressively enveloped smaller numbers of remyelinated axons composing new fascicles. Wallerian degeneration of fibers apparently not affected by ethidium bromide was more intense in the nerves from groups 4 and 5. The peripheral nerve repairs itself after demyelinating challenges with a profusion of collagen fibers and new fasciculations. This experimental model is valid to mimic recurrent demyelinating neuropathies.
- Aspiration hazard: No data available.

Likely routes of exposure
- No data available.

Symptoms related to the physical, chemical and toxicological characteristics
- /LABORATORY ANIMALS: Acute Exposure/ The major signs of toxicity noted after intravenous and subcutaneous dosing /in rats/ included tremors, prostration and sedation. /Homidium/

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
No data available.

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
Not available.

12.6 Endocrine disrupting properties
Not available.

12.7 Other adverse effects
No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge to drains.
Contaminated packaging: Dispose of as unused product or according to local regulations.
Waste codes: Not available.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number
Not available.

14.2 UN proper shipping name
Not available.

14.3 Transport hazard class(es)
Not available.

14.4 Packing group
Not available.

14.5 Environmental hazards
Not available.

14.6 Special precautions for user
Not available.

14.7 Maritime transport in bulk according to IMO instruments
Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Not available.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information

SECTION 16: Other information

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CAS No.: 1239-45-8
Catalog No.: CS-T-22293
Synonyms: 3,8-diamino-5-ethyl-6-phenylphenanthridin-5-ium bromide
Supplier: Clearsynth Labs Ltd., Mumbai, India
Emergency phone: +91-22-245045900

Revision date: Not available
Disclaimer: The information provided is believed to be accurate as of the date of preparation; however, no warranty is expressed or implied. Users should determine suitability for their particular purpose and comply with applicable laws and regulations.

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