Safety Data Sheet

Version 2
Revision Date 12/18/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Ethidium Bromide
Product Number: 2000, 2002, 20005
Brand: Edvotek
Supplier: Edvotek
1121 5th Street NW
Washington, DC 20001
Telephone: 1-800-338-6835 or 202-370-1500
Fax: 202-370-1501
Emergency Phone #: 202-370-1500

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 2)
Germ Cell mutagenicity (Category 2)
Skin irritant (Category 2)

Signal word
Danger

Pictograms

Hazard statement(s)
H302 Harmful if swallowed.
H330 Fatal if inhaled.
H341 Suspected of causing genetic defects.
Precautionary statement(s)
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P281 Use personal protective equipment as required.

P310
Immediately call a POISON CENTER or doctor/ physician

HMIS Classification:
Health hazard:  3
Flammability:  0
Physical hazard:  0

NFPA Rating:
Health hazard:  4
Fire:  0
Reactivity Hazard:  0

OSHA Hazards
Highly toxic by inhalation, Harmful by ingestion, Mutagen

Potential Health Effects:
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin- May be harmful if absorbed through skin. May cause skin irritation.
Eyes- May cause eye irritation.
Ingestion- Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: EtBr
3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide
Homidium bromide
Formula: C_{21}H_{20}BrN_{3}
Molecular Weight: 394.31 g/mol

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No.</th>
<th>CAS –No</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,8-Diamino-1-ethyl-6-phenylphenanthridinium bromide</td>
<td>214-984-6</td>
<td>1239-45-8</td>
<td>&lt; 25 ng/ul</td>
</tr>
</tbody>
</table>
### 4. FIRST AID MEASURES

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of eye contact**
Flush eyes with water as a precaution. Get medical attention immediately if irritation persists.

**In case of skin contact**
Immediately wash off with soap and plenty of water. Get medical attention if symptoms develop.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention if symptoms develop.

### 5. FIREFIGHTING MEASURES

**Conditions of flammability**
Not flammable or combustible.

**Suitable extinguishing media**
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**
Emits toxic fumes.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Prevent skin/eye contact. Use personal protective equipment as needed.

**Environmental precautions**
Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
Methods and materials for containment and cleaning up
Clean up spills immediately. Use absorbent materials if needed and dispose into a chemical waste container.

7. HANDLING AND STORAGE

Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice. Incompatible storage
Strong oxidizing agent

Conditions for safe storage
Keep in the dark in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment
Respiratory protection
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Wear protective gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Eye protection
Avoid eye contact with this material. Wear chemical safety goggles.

Skin and body protection
Use chemical gloves as needed. Use clean protective body covering clothing as needed to minimize contact with clothing and skin.
Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash and dry hands at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form chemical bound to paper
Colour no color

Safety data
pH 4.0-7.0
Melting point/freezing point no data available
Boiling point no data available
Flash point no data available
Ignition temperature no data available
Autoignition Temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density no data available
Water solubility no data available
Partition coefficient:
n-octanol/water no data available
Relative vapour Density no data available
Odour no data available
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No further relevant data available.

Conditions to avoid
No further relevant data available.

Materials to avoid
Strong oxidizing agents.

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas.

## 11. TOXICOLOGICAL INFORMATION

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<table>
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<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
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<tr>
<td>Oral LD50</td>
<td></td>
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<tr>
<td>LD50</td>
<td>Oral-rat-1,503 -2,177 mg/kg</td>
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<tr>
<td>Inhalation LC50</td>
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<tr>
<td>LC50</td>
<td>Inhalation-rat-1 h-11.8 -134 mg/l</td>
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<tr>
<td>Dermal LD50</td>
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<td>Reproductive toxicity</td>
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<td>Teratogenicity</td>
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<tr>
<td>Skin corrosion/irritation</td>
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<tr>
<td>Serious eye damage/eye irritation</td>
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<tr>
<td>Respiratory or skin sensitization</td>
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<tr>
<td>Germ cell mutagenicity</td>
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<td>In vitro tests showed mutagenic effects</td>
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<tr>
<td>Aspiration hazard</td>
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<td>Synergistic effects</td>
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## 12. ECOLOGICAL INFORMATION

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<tbody>
<tr>
<td><strong>Toxicity</strong></td>
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<tr>
<td><strong>Persistence and degradability</strong></td>
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<td>no data available</td>
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<tr>
<td><strong>Bioaccumulative potential</strong></td>
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<tr>
<td>Mobility in soil</td>
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<tr>
<td>PBT and vPvB assessment</td>
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</table>
Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Dispose of unused product, residues, and containers according to local, regional, state, and national regulations.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Highly toxic by inhalation, Harmful by ingestion. Mutagen

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.
16. OTHER INFORMATION

For educational use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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