



1121 5<sup>th</sup> Street NW  
Washington, DC 20001  
[www.edvotek.com](http://www.edvotek.com)

## Safety Data Sheet

Version 2  
Revision Date 08/09/2013

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Ethidium Bromide**  
Product Number: 2000, 2002, 20005  
Brand: Edvotek  
Supplier: Edvotek  
1121 5<sup>th</sup> Street NW  
Washington, DC  
20001

Telephone: 1-800-338-6835  
or 202-370-1500  
Fax: 202-370-1501  
Emergency Phone # (For both supplier  
and Manufacturer):  
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<sub>21</sub>H<sub>20</sub>BrN<sub>3</sub>

**Molecular Weight:** 394.31 g/mol

| Chemical name  | EC No.    | CAS –No   | Concentration |
|--|-----------|-----------|---------------|
| 3,8-Diamino-1-ethyl-6-phenylphenanthridinium bromide | 214-984-6 | 1239-45-8 |               |

## 4. FIRST AID MEASURES

### **If inhaled**

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

### **In case of skin contact**

Immediately wash off with soap and plenty of water. Get medical attention if symptoms develop.

### **In case of eye contact**

Flush eyes with water as a precaution. Get medical attention immediately if irritation persists.

### **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.

Keep in the dark in a dry and well-ventilated place.

**Conditions for safe storage****Incompatible storage**

Strong oxidizing agent

**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:<br>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.

### Materials to avoid

Strong oxidizing agents.

### Possibility of hazardous reactions

No further relevant data available.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Hydrogen bromide gas.

### Conditions to avoid

No further relevant data available.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Oral LD50**

LD50

Oral-rat-1,503 -2,177 mg/kg

**Inhalation LC50**

LC50

Inhalation-rat-1 h-11.8 -134 mg/l

**Dermal LD50**

no data available

no data available

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

In vitro tests showed mutagenic effects

**Aspiration hazard**

no data available

**Synergistic effects**

no data available

**12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Other adverse effects**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

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.

### **SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard.

**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. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.