SDS- Ethidium Bromide Page 1 of 8



1121 5<sup>th</sup> Street NW Washington, DC 20001 www.edvotek.com

## **Safety Data Sheet**

Version 2 Revision Date 12/18/2018

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Ethidium Bromide** 

Product Number: 2000, 2002, 20005

Edvotek Brand: 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 Clasification**

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.

SDS-Ethidium Bromide Page 2 of 8

## **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

Chemical name	EC No.	CAS -No	Concentration
3,8-Diamino-1-ethyl-6-	214-984-6	1239-45-8	< 25 ng/ul
phenylphenanthridinium			
bromide			

SDS-Ethidium Bromide Page 3 of 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.

SDS-Ethidium Bromide Page 4 of 8

#### 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 wellventilated 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.

SDS-Ethidium Bromide Page 5 of 8

#### 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

SDS-Ethidium Bromide Page 6 of 8

Hazardous decomposition products formed under fire conditions. Carbon

oxides, nitrogen oxides (NOx), Hydrogen bromide gas.

#### 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 avilable

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

Mobility in soil

no data available

PBT and vPvB assessment

no data available

SDS-Ethidium Bromide Page 7 of 8

#### 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.

SDS-Ethidium Bromide Page 8 of 8

#### SARA 311/312Hazards

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.