

# Material Safety Data Sheet

Version GHS 5.1  
Revision date : 1/22/2018

## 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name :** Ethidium Bromide Solution , 10mg/ml  
**Product Cat No :** E0205  
**CAS No :**  
**Manufacturer/Supplier :** GenDEPOT LLC  
PO Box 454  
Barker, Tx 77413  
Emergency Phone : 866.417.0078  
Fax : 281-579-6876


## 2. HAZARD IDENTIFICATION

### GHS Classification

Germ cell mutagenicity (Category 2), H341

For the full text of the H-Statements mentioned in this Section,  
see Section 16. 2222

### GHS Label elements, including precautionary statements

Pictogram : 

Signal word : Warning.

Hazard statement(s) :  
H341 Suspected of causing genetic defects.

Precautionary statement(s) :  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/ eye protection/ face protection.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant..

**Hazards not other classified (HNOC) or not covered by GHS**  
none

## 3. COMPOSITION/INFORMATION ON INGREDIENT

**Synonyms :** 3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide  
EtBr  
Homidium bromide

Component	Classification	Concentration
3,8-Diamino-5-ethyl-6-phenylphenanthridinium bromide		
CAS No	1239-45-8	~ 1%
EC No	214-984-6	
Acute Tox. 4; Acute Tox. 1; Muta. 2; H302, H330, H341		
Distilled Water		
CAS No	7732-18-5	~99 %
EC No	231-791-2	

## 4. FIRST AID MEASURES

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Inhalation:** If breathed in, move person into fresh air.  
If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water.  
Consult a physician.

**In case of eye contact :** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed :** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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

**Hazardous combustion products:** Not data available.

**Further information:** Not data available.

## 6 . ACCIDENTAL RELEASE MEASURES

**Personal precaution:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental precaution:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for contaminant and cleaning up:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## 7 . HANDLING AND STORAGE

**Precaution for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Condition for safe storage:** Keep container tightly closed in a dry and well-ventilated place.

**Recommended storage temperature:** Store between the following temperatures:  
Room temperature

## 8 . EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Contains no substances with occupational exposure limit values.  
Hazardous components without workplace control parameters

### Personal protective equipment:

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection:** Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Complete suit protecting against chemicals.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9 . PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Form	Liquid
Color	Dark red

### Safety data:

pH	4.0 - 7.0
Melting point	no data available
Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odor	Odorless
Odor 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 data available

### Condition to avoid

no 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  
Other decomposition products - No data available  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen bromide gas

## 11 . TOXICOLOGICAL INFORMATON

### Acute Toxicity

#### Oral LD50

Rat - 1,503 - 2,177 mg/kg , EtBr  
 Mouse - 110 mg/kg , EtBr

#### Inhalation LC50

Rat - 4 h - 0.00300 - 0.0335 mg/l , EtBr

#### Dermal LD50

no data available

#### Other information on acute toxicity

no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Mutagenicity (Germ cell mutagenicity)

no data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA

#### Reproductive toxicity

no data available

#### Teratogenicity

no data available

#### Aspiration hazard

no data available

#### Additional information

Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy.  
 Liver - Irregularities - Based on Human Evidence  
 Liver - Irregularities - Based on Human Evidence (Acrylamide)

#### Specific target organ toxicity— single exposure (GHS)

no data available

#### Specific target organ toxicity— repeated exposure (GHS)

no data available

#### Aspiration hazard

no data available

#### Potential health effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Ingestion** May be harmful if swallowed.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation

#### Aggravated Medical Condition

Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

#### Synergistic effects

no known significant effects or critical hazards.

#### Additional information

RTECS : KV7175000

## 12 . ECOLOGICAL INFORMATION

### Toxicity

**Product/ingredient name** 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

### Other adverse effect

no data available

## 13 . DISPOSAL CONSIDERATIONS

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14 . TRANSPORT INFORMATION

### DOT(US)

UN number: 2810 Class: 6.1 Packing group: III  
 Proper shipping name: Toxic, liquids, organic, n.o.s. (3,8-Diamino-1-ethyl-6-phenylphenantridinium bromide)

Poison Inhalation Hazard: No

### IMDG

UN number: 2810 Class: 6.1 Packing group: III EMS No: F-A, S-A  
 Proper shipping name: Toxic, liquids, organic, n.o.s. (3,8-Diamino-1-ethyl-6-phenylphenantridinium bromide)

### IATA

UN number: 2810 Class: 6.1 Packing group: III  
 Proper shipping name: Toxic, liquids, organic, n.o.s. (3,8-Diamino-1-ethyl-6-phenylphenantridinium bromide)

## 15 . REGULATORY INFORMATION

### United States

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 : Acute Health Hazard, Chronic Health Hazard

Clean Air Act Section 112(b) : not listed  
 Hazardous air pollutants (HAPs)

Clean Air Act Section 602 : not listed  
 Class I substances

Clean Air Act Section 602 : not listed  
 Class II substances

DEA List I Chemicals : not listed  
 (Precursor chemicals)

DEA List II Chemicals : not listed  
 (Essential chemicals)

### States Regulation

Massachusetts : None of the components are listed  
 New York : None of the components are listed  
 New Jersey : 3,8-Diamino-1-ethyl-6-phenylphenantridinium bromide  
 CAS-No 1239-45-8  
 Water CAS-No 7732-18-5  
 Pennsylvania : Water CAS-No 7732-18-5

California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### Canada

Not determined

#### Canadian lists

Canadian NPRI : Not determined  
 CEPA Toxic substances : Not determined

### International Regulation

Australia (AICS) :	Not determined.
China Inventory (IECSC) :	Not determined.
Japan Inventory :	Not determined
Korea Inventory :	Not determined
New Zealand Inventory of Chemicals (NZIoC):	Not determined
Philippines Inventory (PICCS) :	Not determined.
Malaysia Inventory (EHS Register):	Not determined.
Taiwan inventory (CSNN):	Not determined.

## 16 . OTHER INFORMATION

### HIMS Rating:

Health hazard : 4  
 Chronic Health Hazard : \*  
 Flammability : 0  
 Physical hazards: 0

### NFPA Rating:

Health Hazard: 4  
 Fire: 0  
 Reactivity Hazard: 0

### Full text of H-Statements referred to under sections 2 and 3.

H341 Suspected of causing genetic defects.

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish or legally valid contractual relationship. GenDEPOT LLC, shall not be held liable for any damage resulting from handling of or from with above product. The burden of safe use of this material rests entirely with the user.

Since the conditions of handling, storage and disposal of this material are beyond our control, it is the responsibility of the user to determine whether the material is fit for a particular purpose and/or suitable for the user's method of use or application, and to determine safe conditions for use of the material, and to assume full responsibility for loss, injury and expense arising out of or in connection with the use of material. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE MATERIAL DESCRIBED HEREIN SHALL BE CREATED BY OR INFERRED FROM ANY STATEMENT OR OMISSION FROM THIS MSDS.

Various government agencies and local authorities may have general or specific regulations applicable to the material which may not be covered in this MSDS. It is sole responsibility of the user to examine and confirm for its full compliance with any such regulations.

When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS:  
 GenDEPOT LLC  
 Safety Department