

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 06.11.2012

Revision: 09.10.2012

### 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Ethidium Bromide solution 10mg/ml
- **Article number:** 30-30-02
- **Registration number**  
A registration number is not available for this substance because the annual tonnage is less than that required for registration or the registration date is envisaged for a later registration deadline.
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Laboratory reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Severn Biotech Ltd.  
Unit 2,  
Park Lane,  
Kidderminster,  
Worcestershire.  
DY11 6TJ  
UK  
Tel: 0044 1562 825286  
Fax: 0044 1562 825284  
email: info@severnbiotech.com
- **Further information obtainable from:** Product safety department.
- **Emergency telephone number:** Tel: 0044 1562 825286 (not 24 hours)

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T; Toxic

R23: Toxic by inhalation.



Xn; Harmful

R68: Possible risk of irreversible effects.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS08

- **Signal word** Warning

- **Hazard-determining components of labelling:**

Ethidium bromide

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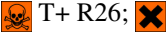
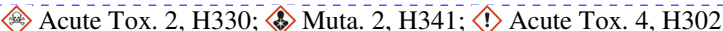
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- **Hazard statements**  
H341 Suspected of causing genetic defects.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read label before use.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P270 Do no eat, drink or smoke when using this product.  
P260 Do not breathe mist/vapours/spray.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
1239-45-8 Ethidium bromide
- **Identification number(s)**
- **EC number:** 214-984-6
- **Index number:** 612-278-00-6
- **Chemical characterization: Mixtures**
- **Description:** An aqueous solution of ethidium bromide.

- **Dangerous components:**

CAS: 1239-45-8 EINECS: 214-984-6	Ethidium bromide  T+ R26; Xn R22-68 Muta. Cat. 3  Acute Tox. 2, H330; Muta. 2, H341; Acute Tox. 4, H302
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- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
DO NOT DELAY!  
Call a doctor immediately.  
Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.  
Do not use mouth to mouth artificial respiration - use an Ambu Bag.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Check for and remove any contact lenses.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.

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- Do not induce vomiting; call for medical help immediately.
- **Information for doctor:** Treat symptomatically and supportively.
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
HBr
- **Advice for firefighters**
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Do not allow to penetrate the ground/soil.  
Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable receptacles.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Avoid direct contact (skin contact, ingestion and/or inhalation of fume/mist/dust) with the product.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidizing agents.

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- **Further information about storage conditions:**
  - Keep container tightly sealed.
  - Store in a banded area.
  - Protect from frost.
  - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.
- **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Do not inhale gases / fumes / aerosols.

A safe system of work must be formulated and followed to ensure that workers who may be pregnant or breastfeeding do not come into direct contact with the product.

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Ensure that eyewash stations and safety showers are close to the workstation location.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Area first aid kits should contain an Ambu Bag.
- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

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· **Body protection:** Impervious protective clothing

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Colour:</b>	Red
· <b>Odour:</b>	Mild
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	approx. 0 °C
· <b>Boiling point/Boiling range:</b>	approx. 100 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· <b>Density at 20 °C:</b>	1.0 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** Strong acids and oxidising agents

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- **Hazardous decomposition products:**  
Hydrogen bromide  
Carbon monoxide and carbon dioxide

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Toxic

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** Product is not expected to bioaccumulate.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Contact waste processors for recycling information.  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
- **European waste catalogue**  
Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.
- **Uncleaned packaging:**
- **Recommendation:** Container remains hazardous when empty. Continue to observe all precautions.

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· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· UN-Number	UN2810
· ADR, IMDG, IATA	
· UN proper shipping name	2810 TOXIC LIQUID, ORGANIC, N.O.S.
· ADR	2810 TOXIC LIQUID, ORGANIC, N.O.S.
· IMDG, IATA	TOXIC LIQUID, ORGANIC, N.O.S.
· Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	6.1 Toxic substances.
· Label	6.1
· Packing group	III
· ADR, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Toxic substances.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III

### 15 Regulatory information

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.

H330 Fatal if inhaled.

H341 Suspected of causing genetic defects.

R22 Harmful if swallowed.

R26 Very toxic by inhalation.

R68 Possible risk of irreversible effects.