

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 26.12.2023

Version number 5 (replaces version 4)

Revision: 12.07.2023

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

#### 1.1 Product identifier

Trade name: **Ethidium bromide 1%**

Article number: 0541

#### Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

UFI: GNA0-308Q-U00F-33JY

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

#### Application of the substance / the mixture

Chemical for research, development, manufacturing, laboratory chemical for analysis.

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer/Supplier:

Biosolve Chimie

20 Rue Roger Husson, 57260 Dieuze, France

Tel: +33 3 878 675 80/81/82/83/84/85

Email: [info@biosolvechimie.com](mailto:info@biosolvechimie.com)

Biosolve B.V.

Leenderweg 78, 5555 CE Valkenswaard, the Netherlands.

Tel: +31-(0)40-2071300

Fax: +31-(0)40-2048537

Email: [info@biosolve-chemicals.com](mailto:info@biosolve-chemicals.com)

Further information obtainable from: Product safety department.

#### 1.4 Emergency telephone number:

Contact list of appointed bodies for information relating to emergency health response, according to Art. 45(1) Reg. (EC) No 1272/2008.

See below section 16 or at <https://poisoncentres.echa.europa.eu/home>.

Help desk: <http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>.

Data from: ECHA - EUROPEAN CHEMICALS AGENCY

For more information see section 16.

### SECTION 2: Hazards identification

#### 2.1 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.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

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### · Hazard pictograms



GHS08

### · Signal word Warning

### · Hazard statements

H341 Suspected of causing genetic defects.

### · Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### · 2.3 Other hazards

### · Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

### · 3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.




### · Dangerous components:

CAS: 1239-45-8

EINECS: 214-984-6

Index number: 612-278-00-6

ethidium bromide

 Acute Tox. 2, H330;  Muta. 2, H341;  Acute Tox. 4, H302

≤2.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

### · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **6.4 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.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 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.

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- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.
- **Respiratory protection:** Not required.
- **Hand protection**  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



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/face protection** Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** Dark red
- **Odour:** Odourless
- **Odour threshold:** No data available.
- **Melting point/freezing point:** 0 °C
- **Boiling point or initial boiling point and boiling range** 100 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** No data available
- **Upper:** No data available
- **Flash point:** Not applicable.
- **Decomposition temperature:** No data available

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· <b>pH</b>	No data available
· <b>Viscosity:</b>	
· <b>Dynamic at 20 °C:</b>	0.952 mPas
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	No data available
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1 g/cm <sup>3</sup>
· <b>Relative density</b>	No data available
· <b>Vapour density</b>	No data available

· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Solution
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	99.0 %
· <b>Solids content:</b>	1.0 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	No data available

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

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### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

CAS: 1239-45-8 ethidium bromide

Oral	LD50	500 mg/kg (ATE)
Inhalative	LC50/4 h	0.05 mg/l (ATE)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Suspected of causing genetic defects.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.

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- **12.7 Other adverse effects**
- **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.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

HP11	Mutagenic
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- **14.1 UN number or ID number**

· <b>ADR, IMDG, IATA</b>	UN2810
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- **14.2 UN proper shipping name**

· <b>ADR</b>	UN2810 TOXIC LIQUID, ORGANIC, N.O.S. (ethidium bromide)
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· <b>IMDG, IATA</b>	TOXIC LIQUID, ORGANIC, N.O.S. (ethidium bromide)
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- **14.3 Transport hazard class(es)**

- **ADR**



- |                |                            |
|----------------|----------------------------|
| · <b>Class</b> | 6.1 (T1) Toxic substances. |
| · <b>Label</b> | 6.1                        |

- **IMDG, IATA**



- |                |                       |
|----------------|-----------------------|
| · <b>Class</b> | 6.1 Toxic substances. |
|----------------|-----------------------|

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· <b>Label</b>	6.1
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	Warning: Toxic substances. 60 F-A,S-A A SW2 Clear of living quarters.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	2 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

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#### · Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

#### · Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

#### · Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

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

## SECTION 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.

#### · Department issuing SDS: Product safety department

#### · Contact:

Austria German Vergiftungsinformationszentrale 01 406 43 43 <http://www.goeg.at/de/VIZ>

Belgium French Centre antipoison 070 245 245 <http://www.centreantipoisons.be>

Dutch Antigif centrum 070 245 245 <http://www.antigifcentrum.be>

German Giftnformationszentrum 070 245 245 <http://www.poissoncentre.be>

Bulgaria\* Bulgarian Токсикологични центрове 02 9154 411 <https://pirogov.eu/bg>

Croatia\* Croatian Centar za kontrolu otrovanja +385 1 2348 342 <https://www.imi.hr/en/jedinica/poison-control-centre>

Czech Rep Czech Toxikologické informační středisko +420 224 91 92 93; +420 224 91 54 02 <http://www.tis-cz.cz>

Denmark Danish Giflinien +45 8212 1212 <https://www.bispebjerghospital.dk/giflinien>

Estonia Estonian Mürgistusteabekeskus 16662; +372 7943 794 <https://www.16662.ee>

Finland Finnish Myrkytystietokeskus 0800 147 111; +358 9 471 977 <http://www.hus.fi/sairaanhoito/sairaanhoitopalvelut/myrkytystietokeskus/Sivut/default.aspx>

France French Angers +33 2 41 48 21 21 <http://www.centres-antipoison.net/angers/index.html>

Bordeaux +33 5 56 96 40 80 <http://www.centres-antipoison.net/bordeaux/index.html>

Lille +33 0800 59 59 59 <http://www.centres-antipoison.net/lille/index.html>

Lyon +33 4 72 11 69 11 <http://www.centres-antipoison.net/lyon/index.html>

Marseille +33 4 91 75 25 25 <http://www.centres-antipoison.net/marseille/index.html>

Nancy +33 3 83 22 50 50 <http://www.centres-antipoison.net/nancy/index.html>

Paris +33 1 40 05 48 48 <http://www.centres-antipoison.net/paris/index.html>

Strasbourg +33 3 88 37 37 37 <http://www.centres-antipoison.net/strasbourg/index.html>

Toulouse +33 5 61 77 74 47 <http://www.centres-antipoison.net/toulouse/index.html>

Germany German Berlin +49 30 19240 <https://giftnotruf.charite.de>

Bonn +49 228 19240 <http://www.gizbonn.de/index.php?id=272>

Erfurt +49 361 730730 <https://www.ggiz-erfurt.de/home.html>

Freiburg +49 761 19240 <https://www.uniklinik-freiburg.de/gifbberatung.html>

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Göttingen +49 551 19240 <https://www.giz-nord.de/cms/index.php>  
Homburg/Saar +49 6841 19240 [http://www.uniklinikumsaarland.de/de/einrichtungen/kliniken\\_institute/kinder\\_und\\_jugendmedizin/informations\\_und\\_behandlungszentrum\\_fuer\\_vergiftungen\\_des\\_saarlandes](http://www.uniklinikumsaarland.de/de/einrichtungen/kliniken_institute/kinder_und_jugendmedizin/informations_und_behandlungszentrum_fuer_vergiftungen_des_saarlandes)  
Mainz +49 6131 19240 <http://www.giftinfo.uni-mainz.de/index.php?id=24807>  
München +49 89 19240 <http://www.toxinfo.med.tum.de>  
Greece Greek κέντρο δηλητηριάσεων +30 213 200 9000 <http://www.aglaiakyriakou.gr/>; <http://0317.syzefxis.gov.gr>  
Hungary Hungarian Egészségügyi Toxikológiai Tájékoztató Szolgálat +36 6 80 20 11 99; +36 06 1 476 6464 <http://www.okbi.hu/page.php?trid=1&dz=103>  
Italy Italian Bergamo +39 800 88 33 00 [http://www.asst-pg23.it/section/259/Tossicologia\\_Centro\\_antiveleni](http://www.asst-pg23.it/section/259/Tossicologia_Centro_antiveleni)  
Firenze +39 55 794 78 19 <http://www.antiveleni.altervista.org>  
Milano +39 2 661 01 029 <http://www.centroantiveleni.org>  
Pavia +39 382 244 44 <http://www-3.unipv.it/reumatologia-tossicologia/cav>  
Napoli +39 81 747 28 70  
Foggia +39 881 732 326  
Roma +39 6 685 93 726 / +39 6 499 78 000 / +39 6 305 43 43 <http://www.corso-primo-soccorso-roma.it/centri/antiveleno-lazio.html>  
Ireland English Poisons information Centre of Ireland +353 1 809 21 66 <http://www.poisons.ie/Public>  
Latvia\* Latvian Saindēšanās informācijas centri +371 670 00 610 <https://www.aslimnica.lv/lv>  
Russian Латвия +371 67000610 <https://www.aslimnica.lv/lv>  
Lithuania Lithuanian Apsinuodijimų informacijos biuras + 370 5 236 20 52 <http://www.apsinuodijau.lt>  
Luxembourg German Giftinformationszentrum +49 800 255 00 <http://www.poissoncentre.be>  
French Centre antipoison +352 800 255 00 <http://www.centreantipoisons.be>

• **Date of previous version:** 19.10.2022

• **Version number of previous version:** 4

• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Muta. 2: Germ cell mutagenicity – Category 2

• **\* Data compared to the previous version altered.**