

SAFETY DATA SHEET

First edition	Revision date	Replaces	Performed by	Page
28/11/2011, R01	04/09/2020, R07	25/03/2019, R06	Trossa AB/JW	1 of 8

Olerup SSP® Ethidium Bromide Dropper Bottle

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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| 1.1 PRODUCT IDENTIFIER | Olerup SSP® Ethidium Bromide Dropper Bottle |
| 1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST | Ethidium bromide is used for staining DNA in the agarose gel electrophoresis. |
| 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET | CareDx AB
Franzégatan 5, 112 51 Stockholm, Sweden
Tel: +46 8 508 939 00
If you have questions about the safety data sheet, please contact:
techsupport-labproducts@caredx.com |
| 1.4 EMERGENCY TELEPHONE NUMBER | In emergency situations, EU: dial 112, USA and Canada: dial 911, Australia dial 000 or 112 and ask for Poison information. |

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE (CLP)

Health hazards:

The product is classified as hazardous to health.
Harmful if inhaled (Acute Tox. 4; H332).

Environmental hazards

The product is not classified as hazardous to the environment.

Physical hazards

The product is not classified for physical hazards.

2.2 LABEL ELEMENTS

Hazard Pictograms



Signal word

VARNING

Substances which contribute to the classification

3,8-diamino-1-ethyl-6-phenylphenantridinium-bromide (= Ethidium Bromide).

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Hazard statements

H332 Harmful if inhaled.

Precautionary statements

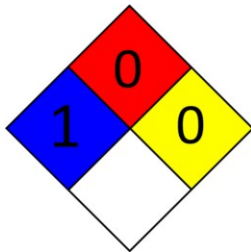
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P284 In case of inadequate ventilation wear respiratory protection.

P304+P340+312 IF INHALED: Remove person to fresh air and keep comfortable for breathing and call a POISON CENTER or doctor if you feel unwell.

Other labelling

NFPA-rating may be used.



Other regulations

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Other information

No information about the product PBT or vPvB properties.

Does not contain any SVHC-substances (= Substance of Very High Concern) \geq 0,1% from the Candidate list of EU.

2.3 OTHER HAZARDS

No other hazards are related to the product.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

Description of the mixture

Water solution of ethidium bromide (0,625 mg/ml).

Substances	EC No	CAS No	REACH No ²	Conc weight %	CLP-classification ¹	
3,8-diamino-1-ethyl-6-phenylphenantridinium-bromide (= Ethidium Bromide) ^a	214-984-6	1239-45-8	-	< 0,1	Acute Tox.4 Acute Tox.2 Muta.2	H302 H330 H341
Water	231-791-2	7732-18-5		> 99	-	-

a) EU-harmonized conclusive classification according to Annex VI, part 3, table 3.1 and 3.2, Regulation (EC) No 1272/2008 (CLP).

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Other information

For a full text of H- phrases: See section 16.

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES^{3,4}

Inhalation

Fresh air and rest. If respiratory problems, consult a doctor.

Skin contact

Take off contaminated clothes. Rinse with water. Consult a doctor if skin irritation or rash emerges.

Eye contact

Rinse with soft jet of water or eye wash for a few minutes. Use temperate water. Hold eyelids open, remove contact lenses. Consult a doctor if symptoms remain.

Ingestion

Rinse the mouth and drink water.

Information to medical advice

No specific information.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation: May cause nausea, dizziness, headache, impaired reactions, and at very high levels loss of consciousness.

Skin contact: Not expected to give any acute or delayed symptoms.

Eye contact: Probably causes discomfort but is not expected to give any serious symptoms.

Ingestion: Smaller amounts are not expected to give any acute or delayed symptoms.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

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SECTION 5. FIREFIGHTING MEASURES⁴

5.1 EXTINGUISHING MEDIA RELEVANT

Use the same extinguishing media as recommended for the surroundings. Do not use a water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE MIXTURE

Non-flammable. In case of fire, toxic and corrosive fumes such as carbon- and nitrogen oxides, hydrogen bromide and hydrogen gas can form.

5.3 ADVICE FOR FIREFIGHTERS

Precautions according to standard procedures in the presence chemical fires. Use breathing apparatus to protect against toxic and corrosive gases and suitable protective clothing.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid inhalation and direct contact with the product. Make sure ventilation is adequate, otherwise wear a respiratory mask with filter A. Wear protective gloves and clothing and eye protection when cleaning the product. Keep unprotected persons away.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid discharge into the sewer.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Absorb with a liquid binding material such as sand soil or similar. Collect and treat as conventional waste. Rinse away residues with plenty of water.

6.4 REFERENCE TO OTHER SECTIONS

See Section 8 for Exposure controls / personal protection and Section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid inhalation and direct contact with the product. Do not eat, drink and smoke when handling the product. Normal hand hygiene.

When handling the product, national regulations regarding chemical safety should apply.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in well closed container, protected from light at temperature indicated on package.

7.3 SPECIFIC END USE

See section 1.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 OCCUPATIONAL EXPOSURE LIMIT VALUES

Contains no substances with occupational exposure limits in the working environment according to GESTIS International Limit Values <http://limitvalue.ifa.dguv.de/>.

8.2 EXPOSURE CONTROLS

Appropriate technical measures

Methods are developed to prevent direct contact. Ensure good ventilation. In case of insufficient ventilation, mechanical ventilation with local exhaust ventilation used.

Possibility to rinse eyes shall be available at place of work. Also, safety shower shall be available if handling large amounts.

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Personal protection

Eye/face protection:	Use protective glasses if at risk for splashing.
Skin protection:	At risk for direct contact, wear protective gloves. Recommended glove material: Nitrile.
Respiratory protection:	Use a respirator when handling the product, e.g. half-mask with breathing filter A-brown.
Other protection:	Long coat
Thermal hazard.	Irrelevant.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

Avoid excessive release to the environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Product description ⁴

Appearance:	Red-orange, clear liquid
Odour:	None
pH:	4,4
Relative density:	1 g/cm ³
Solubility in water:	100%

Information about following is missing or is irrelevant: Odour threshold, melting-point, boiling-point, flashpoint, evaporation rate, flammability, flammability or explosive limits, vapour pressure, vapour density, solubility in organic solvents, partition coefficient (Log Pow), auto-ignition temperature, decomposition temperature, viscosity, explosive and oxidizing properties.

9.2 OTHER INFORMATION

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SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY

The product is not reactive in normal handling and storage as recommended in section 7.

10.2 CHEMICAL STABILITY

The product is stable under normal handling and storage as recommended in section 7.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None known.

10.4 CONDITIONS TO AVOID

None known.

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10.5 INOMPATIBLE MATERIALS

Strong oxidizing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No data.

SECTION 11. TOXICOLOGICAL INFORMATION

No toxicological data is available for the product; therefore, the evaluation is based on data for components. The product is classified as hazardous to the health. Specific effects are described below.

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity:	The product is harmful by inhalation.
Ethidium bromide ³	LD ₅₀ Oral: 1503 mg/kg (rat) LD ₅₀ Subcutaneous: 110 mg/kg (mouse) LC ₅₀ Inhalation: 0,0118 – 0,134 mg/l/1-6 h (rat)
Corrosive/Irritating on the skin:	Not classified as skin irritant.
Serious eye damage / irritation:	Not classified as irritating to the eyes.
Respiratory / skin sensitization:	Not classified as a sensitizer.
Germ cell mutagenicity:	The product is not classified as mutagenic, but it contains a small amount of ethidium bromide which has been examined in an extensively high number of tests and was found to be genotoxic in most of the in-vitro and in-vivo tests. ³
Carcinogenicity:	Not classified as a carcinogen.
Toxic to reproduction:	Not classified as toxic to reproduction.
Specific organ toxicity-single exposure:	No data.
Specific organ toxicity-repeated exposure:	No data.
Aspiration Hazard:	Not relevant.
Specific effects	None known.

11.2 OTHER INFORMATION

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SECTION 12. ECOLOGICAL INFORMATION

No toxicological data is available for the product nor its components. The product is not classified as a hazardous to the environment and is not expected to result in any negative environmental consequences but should be handled according to good industrial standards.

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12.1 TOXICITY

No data available.

12.2 PERSISTENCE AND DEGRADABILITY

No data available.

12.3 BIOACCUMULATIVE POTENTIAL

No data available.

12.4 MOBILITY IN SOIL

The product is water soluble.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

No information about the product PBT or vPvB properties.

12.6 OTHER ADVERSE EFFECTS

None known.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Product

Classified as conventional waste according to the Commission Regulation (EU) No 1357/2014 on waste. EWC-code: 18 01 07 (chemicals other than those mentioned in 18 01 06) according to the European Waste Catalogue). All disposal practices must be in accordance with local, regional, national, and international regulations.

Packaging

Empty containers are treated as conventional waste and sent for recycling or incineration.

SECTION 14. TRANSPORT INFORMATION

This product is not covered by the regulations for transportation of dangerous goods.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This safety data sheet is prepared in accordance with the EUROPEAN PARLIAMENT AND COUNCIL REGULATION (EC) No 1907/2006 of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH) and Commission Regulation (EU) No 2015/830 of 28 May 2015 amending the European Parliament and Council Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH).

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Regulations

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

GESTIS International Limit Values <http://limitvalue.ifa.dguv.de/>.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste.

European Waste Catalogue (EWC-codes): http://www.sepa.org.uk/media/163421/ewc_guidance.pdf.

15.2 CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16. OTHER INFORMATION

Classification procedure

Test-data is prioritized at classification of the product. In absence of such, the classification-rules in the regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP) been used.

Hazard statements in section 3

H302	Harmful if swallowed.	H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.		

Abbreviations

ECHA	European Chemical Agency
LC ₅₀	Lethal Concentration (= Concentration that would lead to 50 % deaths among the exposed test animals)
LD ₅₀	Lethal Dose (= Dose that would lead to 50 % deaths among the exposed test animals)
PBT	Persistent Bio-accumulative and Toxic substance
SVHC	Substance of Very High Concern
vPvB	very Persistent and very Bio-accumulative substance

Advice about education

To use this product, you should have an education that is relevant to the properties of the product and relevant use.

References

- 1) *Classification & Labelling Inventory Database, ECHA.*
- 2) *Registered substances, ECHA.*
- 3) *GESTIS Substance Database, IFA Germany.*
- 4) *Information from older safety document: MSDS, version 28/11/2011.*

Version description

This safety data sheet has been revised in accordance with title IV and annex II in the regulation (EC) No 1907/2006 of the European parliament and of the council (REACH).

Information has been modified under the following sections in the safety data sheet: 1.

The safety data sheet is dated 04/09/2020 and it replaces version dated 25/03/2019.