

## Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)  
Classification according to Regulation (EC) No. 1272/2008 [CLP]

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

#### Product identifier

<b>Product code</b>	C10422
<b>Product name</b>	CellROX™ Deep Red Reagent
<b>Unique Formula Identifier (UFI)</b>	Not Applicable
<b>Chemical Name</b>	Not Applicable
<b>REACH registration number</b>	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

<b>Relevant identified uses</b>	For research use only
<b>Use Description Code</b>	SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen), PROC15 - Use as laboratory reagent, PC21 - Laboratory chemicals, SU24 - Scientific research and development
<b>Uses advised against</b>	Not for consumer use.

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

##### Manufacturer / Supplier

LIFE TECHNOLOGIES EUROPE BV  
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NETHERLANDS  
31-(0)180 392 400  
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+44 (0)141 814 6100

#### Emergency telephone number

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent

**24 hour Emergency Response for Hazardous Materials** Within the USA + Canada: 1-800-424-9300 and  
**[or Dangerous Goods] Incident. Spill, Leak, Fire,** 1-703-527-3887  
**Exposure, or Accident. Call CHEMTREC** Outside the USA + Canada: 1-703-741-5970

**Country Specific Emergency Number (if available):**

CHEMTREC Ireland (Dublin) +(353)-19014670 (Greeting Language: English and Irish)  
CHEMTREC UK (London) +(44)-870-8200418 (Greeting Language: English)

SECTION 2: Hazards identification

**Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

**Physical hazards**

Not Hazardous

**Health hazards**

Not Hazardous

**Environmental hazards**

Not Hazardous

**Additional information**

Not Applicable

**Label elements**

**Labelling according to Regulation (EC) No 1272/2008 [CLP]**

**Hazard pictograms**

None

**Signal Word**

None

**Hazard Statements**

Not Applicable

**Precautionary Statements**

**Prevention**

Not Applicable

**Response**

Not Applicable

**Storage**

Not Applicable

**Disposal**

Not Applicable

**Other hazards**

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent

Not Applicable

### SECTION 3: Composition/information on ingredients

#### Mixtures

Chemical Name	CAS No	EINECS-No.	Weight-%	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dimethyl sulfoxide	67-68-5	200-664-3	95-100	-	Not classified

Chemical Name	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
Dimethyl sulfoxide	-	-	-

### SECTION 4: First aid measures

#### Description of first aid measures

<b>Skin contact</b>	Rinse skin with water. Immediate medical attention is not required.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Ingestion</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
<b>Inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
<b>Notes to Physician</b>	Treat symptomatically.

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

Not Applicable

#### Indication of any immediate medical attention and special treatment needed

None.

### SECTION 5: Firefighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Unsuitable extinguishing media</b>	No information available.

#### Special hazards arising from the substance or mixture

Not known

#### Advice for firefighters

Standard procedure for chemical fires.

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent

## SECTION 6: Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)

Use personal protection equipment

See section 8 for more information

### **Environmental precautions**

No special environmental precautions required.

### **Methods and material for containment and cleaning up**

Soak up with inert absorbent material.

### **Reference to other sections**

See section 8 for more information.

## SECTION 7: Handling and storage

### **Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

### **Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

### **Specific end use(s)**

For research use only.

## SECTION 8: Exposure controls/personal protection

### Control parameters

Chemical Name	EU OEL (TWA)	EU OEL (STEL)	EU Skin Notation
Dimethyl sulfoxide 67-68-5	None	None	None
Chemical Name	Austria	Belgium (TWA)	Czech Republic
Dimethyl sulfoxide 67-68-5	50 ppm 160 mg/m <sup>3</sup>	None	None
Chemical Name	Denmark (TWA)	Finland OEL (TWA)	France OEL (VME)
Dimethyl sulfoxide 67-68-5	50 ppm 160 mg/m <sup>3</sup>	None	None
Chemical Name	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
Dimethyl sulfoxide 67-68-5	50 ppm exposure factor 2 160 mg/m <sup>3</sup> exposure factor 2	None	None
Chemical Name	Lithuania OEL (TWA)	Netherlands OEL (MAC)	Norway
Dimethyl sulfoxide 67-68-5	50 ppm 150 mg/m <sup>3</sup>	None	None
Chemical Name	Poland	Portugal	Spain OEL (TWA)
Dimethyl sulfoxide 67-68-5	None	None	None
Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	United Kingdom
Dimethyl sulfoxide 67-68-5	50 ppm TLV NGV; 150 mg/m <sup>3</sup> TLV NGV	100 ppm STEL 320 mg/m <sup>3</sup> STEL 50 ppm TWA 160 mg/m <sup>3</sup> TWA	None

**Engineering Measures**      Ensure adequate ventilation, especially in confined areas.

### Exposure controls

#### Personal protection equipment

**Respiratory protection**      In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

**Hand protection**              Wear suitable gloves Glove material: Compatible chemical-resistant gloves.

**Eye protection**                 Tight sealing safety goggles.

**Skin and Body Protection**    Wear suitable protective clothing.

**Hygiene Measures**             Handle in accordance with good industrial hygiene and safety practice.

#### Environmental exposure controls

No special environmental precautions required.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Physical state	liquid	
Colour	No data	
Odour	No data	
Molecular Weight	No data	
Melting point / melting range	°C 18 - 19	°F 64.4 - 66.2
Boiling point / boiling range	°C 188 - 190	°F 370 - 374
Flammability (solid, gas)	No data	
Lower explosion limit	2.4% - 2.8%	
Upper explosion limit	61% - 64%	
Flash point	°C 87 - 89	°F 188.6 - 192.2
Autoignition Temperature	°C 214 - 216	°F 417.2 - 420.8
Decomposition temperature	°C No data	°F No data
pH	6-8	
Evaporation rate	No data	
Viscosity	No data	
Solubility	No data	
Partition coefficient: n-octanol/water	No data	
Vapour Pressure	No data	
Specific gravity	No data	
Relative density	No data	
Vapour density	No data	
Explosive properties	No data	
Oxidising properties	No data	
Particle characteristics	No data	

### Other information

#### Information with regards to physical hazard classes

No information available

#### Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	No information available.
Incompatible materials	Strong acids. Strong oxidising agents.
Hazardous decomposition products	No data available.

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent

## SECTION 11: Toxicological information

### Information on hazard classes as defined in Regulation (EC) No 1272/2008

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl sulfoxide	14500 mg/kg Oral LD50	>40000 mg/kg bw	>5000 mg/l

### Principal Routes of Exposure

**Skin corrosion/irritation** Mild skin irritant, Components of the product may be absorbed into the body through the skin

**Serious eye damage/irritation** Data are conclusive but insufficient for classification

**Respiratory or skin sensitisation** Data are conclusive but insufficient for classification

**Specific target organ toxicity (STOT) – single exposure** Data are conclusive but insufficient for classification

**Specific target organ toxicity (STOT) – repeated exposure** Data are conclusive but insufficient for classification

**Carcinogenicity** Data are conclusive but insufficient for classification

**Germ cell mutagenicity** Data are conclusive but insufficient for classification

**Reproductive Toxicity** Data are conclusive but insufficient for classification

**Aspiration Hazard** Data are conclusive but insufficient for classification

### Information on other hazards

#### Endocrine disrupting properties

No information available

#### Other information

No information available

## SECTION 12: Ecological information

### Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Dimethyl sulfoxide	No data available	No data available	No data available	No data available	logPow-1.35

**Persistence and degradability** Inherently biodegradable.

**Bioaccumulative potential** Material does not bioaccumulate.

**Mobility in soil** No information available.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

### Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## SECTION 14: Transport information

### IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

<b>UN number or ID number</b>	Not Applicable
<b>UN proper shipping name</b>	Not Applicable
<b>Transport hazard class(es)</b>	Not Applicable
<b>Packing group</b>	Not Applicable

### Special precautions for user

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent



Not Applicable

**Maritime transport in bulk according to IMO instruments**

Not Applicable.

SECTION 15: Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Substances of Very High Concern**

None

**Substance subject to authorisation per REACH Annex XIV**

None

**Restricted substances under EC 1907/2006, Annex XVII**

None

Chemical Name	Weight-%	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Dimethyl sulfoxide	95-100	Use restricted. See item 75.

**Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)**

**Regulation (EU) No 2019/1021 (Stockholm Convention – persistent organic pollutants)**

None

**EU - Substances Depleting the Ozone layer (1005/2009)**

**German Water hazard classes (Wassergefährdungsklassen)**

Chemical Name	Weight-%	Water hazard class (WGK)
Dimethyl sulfoxide	95-100	hazard class 1 - slightly hazardous to water

**Other International Inventories**

Chemical Name	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)	ENCS (Japan)	PICCS (Philippines)
Dimethyl sulfoxide	Listed	-	Listed	Listed

Chemical Name	AICS (Australia)	South Korea (KECL)	Canada (DSL)	NDSL
Dimethyl sulfoxide	Listed	Listed	Listed	-

**Chemical safety assessment**

Revision number 11  
Product code C10422

Revision date 30-Aug-2023  
Product name CellROX™ Deep Red Reagent

No Chemical safety assessment has been carried out.

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**Revision number** 11  
**Product code** C10422

**Revision date** 30-Aug-2023  
**Product name** CellROX™ Deep Red Reagent

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Page 10 / 11

**Reason for revision** Update according to Commission Regulation EU No. 2020/878  
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**References**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

Not classified

**Abbreviations and acronyms**

**TWA** - Time-Weighted Average

**OELs** - Occupational Exposure Limits

**STEL** - Short Term Exposure Limit

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

**EPA** - Environmental Protection Agency

**OSHA** - Occupational Safety and Health Administration of the US Department of Labour

**IATA** - International Air Transport Association

**DOT** - Department of Transportation

**IMDG** - International Maritime Dangerous Goods

**ACGIH** - American Conference of Governmental Industrial Hygienists

**NIOSH** - National Institute for Occupational Safety and Health

**AIHA** - American Industrial Hygiene Association

**HMIS** - Department of Defense Hazardous Materials Information System

**NTP** - National Toxicology Program

**IARC** - International Agency for Research on Cancer

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006.

"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 WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

**Revision number** 11  
**Product code** C10422

**Revision date** 30-Aug-2023  
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