

## SAFETY DATA SHEET

## CellBrite Cytoplasmic Membrane Dyes

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

CellBrite Cytoplasmic Membrane Dyes

## Other names / Synonyms

30021: CellBrite® Green Cytoplasmic Membrane Dye, 1 mL  
30022: CellBrite® Orange Cytoplasmic Membrane Dye, 1 mL  
30023: CellBrite® Red Cytoplasmic Membrane Dye, 1 mL

## Product no.

30021, 30022, 30023

## Other means of identification

CAS No.: 64-17-5

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

## Relevant identified uses of the substance or mixture

Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use.  
Restricted to professional users.

## Uses advised against

None known.

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

## Company and address

**Biotium, Inc.**

46117 Landing Parkway  
CA 94538 Fremont  
USA  
T: +1 510-265-1027  
Fax: +1 510-265-1352  
<http://www.biotium.com>

## E-mail

[techsupport@biotium.com](mailto:techsupport@biotium.com)

## SDS date

5/2/2024

## SDS Version

1.0

## Date of previous version

5/2/2024 (1.0)

## 1.4. Emergency telephone number

In an emergency call 911

Alberta / Northwestern Territories (PADIS): 1-800-332-1414

British Columbia (DPIC): 1-800-567-8911

Manitoba: 1-855-7POISON (1-855-776-4766)

New Brunswick: 911

Nova Scotia / Prince Edward Island (IWK): 1-800-565-8161

Ontario (OPC): 1-800-268-9017

Québec (CAPQ): 1-800-463-5060

Saskatchewan (PADIS): 1-866-454-1212

Yukon Territory: (867) 393-8700

Transport emergencies: Call CANUTEC at 1-888-CAN-UTEC (226-8832), 613-996-6666 or \*666 on a cellular phone (24 hours)

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

Classified according to WHMIS 2022.

### 2.1. Classification of the substance or mixture

Flam. Liq. 2; H225, Highly flammable liquid and vapour.

### 2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Highly flammable liquid and vapour. (H225)

Precautionary statement(s)

General

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Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)

Keep container tightly closed. (P233)

Response

In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)

Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

ethanol;ethyl alcohol

Additional labelling

Not applicable.

### 2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
ethanol;ethyl alcohol	CAS No.: 64-17-5	>99%%	Flam. Liq. 2, H225	

### 3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

#### Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

#### Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

#### Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Highly flammable liquid and vapour.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact a poison centre in order to obtain further advice. See section 1 "Emergency telephone number".

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

#### 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous

earth and place in container for disposal according to local regulations.  
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Ground and bond container and receiving equipment.  
Use explosion-proof [electrical/lighting/ventilating] equipment.  
Use non-sparking tools.  
Take action to prevent static discharges.  
Avoid contact during pregnancy and while nursing.  
Smoking, drinking and consumption of food is not allowed in the work area.  
See section 8 "Exposure controls/personal protection" for information on personal protection.

#### 7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.  
Take action to prevent static discharges.  
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

##### Recommended storage material

Always store in containers of the same material as the original container.

##### Storage temperature

Keep container tightly closed in a dry and well-ventilated place.  
Refrigerator 2°C to 8°C.  
Protect from light.

##### Incompatible materials

No specific requirements

#### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### ALBERTA

ethanol;ethyl alcohol  
Long term exposure limit (8 hours) (ppm): 1000  
Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 1880

Occupational Health and Safety Code 2009 Order, Alta Reg 87/2009 (revised in 2018)

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##### BRITISH COLUMBIA

ethanol;ethyl alcohol  
Short-Term Exposure Limit (STEL) / Ceiling Limit (C): 1000 ppm  
OHS Regulation Part 5: Chemical Agents and Biological Agents.

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##### ONTARIO

ethanol;ethyl alcohol  
Short-Term Exposure Limit (STEL) / Ceiling Limit (C): 1,000 ppm  
Regulation 833 (Control of Exposure to Biological or Chemical Agents) and Ontario Regulation 490/09 (Designated Substances)

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##### SASKATCHEWAN

ethanol;ethyl alcohol  
Long term exposure limit (8 hours) (ppm): 1000  
Short term exposure limit (15 minutes) (ppm): 1250  
The Occupational Health and Safety Regulations, 2020, Chapter S15.1 Reg 10.

#### 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

### General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

### Exposure scenarios

There are no exposure scenarios implemented for this product.

### Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

### Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

### Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

### Measures to avoid environmental exposure

No specific requirements.


### Individual protection measures, such as personal protective equipment

#### Generally

Use only protective equipment with a recognized certification mark, e.g. the UL mark.

#### Respiratory Equipment

Type	Class	Colour	Standards
Not required; except in case of aerosol formation.			N/A



#### Skin protection

Recommended	Type/Category	Standards
No specific requirements.	-	-


#### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
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

Type	Standards
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).	EN166



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Liquid

#### Colour

Testing not relevant or not possible due to the nature of the product.

#### Odour

Testing not relevant or not possible due to the nature of the product.

#### Odour threshold (ppm)

Testing not relevant or not possible due to the nature of the product.

#### pH

Testing not relevant or not possible due to the nature of the product.

#### Density (g/cm<sup>3</sup>)

Testing not relevant or not possible due to the nature of the product.

#### Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point (°C)

Testing not relevant or not possible due to the nature of the product.

##### Boiling point (°C)

Testing not relevant or not possible due to the nature of the product.

##### Vapour pressure

Testing not relevant or not possible due to the nature of the product.

##### Relative vapour density

Testing not relevant or not possible due to the nature of the product.

##### Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

#### Data on fire and explosion hazards

##### Flash point (°C)

Testing not relevant or not possible due to the nature of the product.

##### Flammability (°C)

The material is ignitable.

##### Auto-ignition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

##### Explosion limits (% v/v)

Testing not relevant or not possible due to the nature of the product.

#### Solubility

##### Solubility in water

Soluble

##### n-octanol/water coefficient (LogKow)

Testing not relevant or not possible due to the nature of the product.

##### Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

### 9.2. Other information

#### Other physical and chemical parameters

No data available.

#### Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.  
Heat, flames and sparks.

#### 10.5. Incompatible materials

No specific requirements

#### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

Based on available data, the classification criteria are not met.

##### 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 sensitisation

Based on available data, the classification criteria are not met.

##### Skin sensitisation

Based on available data, the classification criteria are not met.

##### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

##### 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.

##### Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

##### Other information

None known.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data available.

#### 12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

#### 12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

#### 12.6. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### Waste treatment methods




None of the components are listed

#### Specific labelling

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

### SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
TDG	UN1170	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 1 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1170	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	Limited quantities: 1 L EmS: F-E S-D See below for additional information.
IATA	UN1170	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1 	II	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

#### Additional information

TDG / See Schedule 1 for any information on special provisions, requirements, or warnings in connection with transport. See part 3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture



## 15.2. Canadian lists

### DSL / NDSL

ethanol;ethyl alcohol is listed

## 15.4. Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

## 15.5. Demands for specific education

No specific requirements.

## Additional information

Not applicable.

## 15.7. Chemical safety assessment

No

## Sources

Hazardous Products Regulations (SOR/2022-272)

## SECTION 16: Other information

### Full text of H-phrases as mentioned in section 3

H225, Highly flammable liquid and vapour.

### The full text of identified uses as mentioned in section 1

None known.

### Abbreviations and acronyms

ANSI = American National Standards Institute

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

DSL = Domestic Substances List

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HHNOC = Health Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NDSL = Non-domestic substances list

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PHNOC = Physical Hazards Not Otherwise Classified

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

SCL = A specific concentration limit.

SOR = Statutory Orders and Regulations

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TDG = Transportation of Dangerous Goods

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

WHIMS = Workplace Hazardous Materials Information System

### Additional information

The classification of the mixture in regard to physical hazards has been based on experimental data.

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Biotium shall not be held liable for any damage resulting from handling or contact with the above product.

▼ The safety data sheet is validated by

Eric Torres

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: CA-en