

## SAFETY DATA SHEET

# CellBrite® Steady Membrane Labeling Kits

## **SECTION 1: Identification**

### 1.1. Product identifier

## Trade name

CellBrite® Steady Membrane Labeling Kits

## Other names / Synonyms

30105-T: CellBrite® Steady 405 Membrane Labeling Kit, 100 labeling reactions 30105: CellBrite® Steady 405 Membrane Labeling Kit, 500 labeling reactions 30106-T: CellBrite® Steady 488 Membrane Labeling Kit, 100 labeling reactions 30106: CellBrite® Steady 488 Membrane Labeling Kit, 500 labeling reactions 30107-T: CellBrite® Steady 550 Membrane Labeling Kit, 100 labeling reactions 30107: CellBrite® Steady 550 Membrane Labeling Kit, 500 labeling reactions 30108-T: CellBrite® Steady 650 Membrane Labeling Kit, 500 labeling reactions 30108-T: CellBrite® Steady 650 Membrane Labeling Kit, 100 labeling reactions 30108-T: CellBrite® Steady 650 Membrane Labeling Kit, 100 labeling reactions 30108: CellBrite® Steady 650 Membrane Labeling Kit, 500 labeling reactions 30109-T: CellBrite® Steady 685 Membrane Labeling Kit, 500 labeling reactions 30109-T: CellBrite® Steady 685 Membrane Labeling Kit, 500 labeling reactions

#### Kit Components:

30105A-100uL: CellBrite<sup>™</sup> Steady 405 Dye, 1000X in DMSO, 100 uL 30105A-20uL: CellBrite<sup>™</sup> Steady 405 Dye, 1000X in DMSO, 20 uL 30106A-100uL: CellBrite<sup>™</sup> Steady 488 Dye, 1000X in DMSO, 20 uL 30106A-20uL: CellBrite<sup>™</sup> Steady 488 Dye, 1000X in DMSO, 20 uL 30107A-100uL: CellBrite<sup>™</sup> Steady 550 Dye, 1000X in DMSO, 100 uL 30107A-20uL: CellBrite<sup>™</sup> Steady 550 Dye, 1000X in DMSO, 20 uL 30108A-100uL: CellBrite<sup>™</sup> Steady 650 Dye, 1000X in DMSO, 20 uL 30108A-20uL: CellBrite<sup>™</sup> Steady 650 Dye, 1000X in DMSO, 20 uL 30109A-100uL: CellBrite<sup>™</sup> Steady 650 Dye, 1000X in DMSO, 20 uL 30109A-20uL: CellBrite<sup>™</sup> Steady 685 Dye, 1000X in DMSO, 20 uL 30109A-20uL: CellBrite<sup>™</sup> Steady 685 Dye, 1000X in DMSO, 20 uL 99855-20uL: CellBrite<sup>™</sup> Steady Enhancer, 1000X in DMSO, 20 uL

## Product no.

30105-T, 30105, 30106-T, 30106, 30107-T, 30107, 30108-T, 30108, 30109-T, 30109

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

Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use. 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 SDS date 3/27/2025 SDS Version 1.0



#### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case See also section 4 "First aid measures".

SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture See individual kit component SDS attached. Not classified according to HCS (29 CFR 1910.1200) 2.2. Label elements See individual kit component SDS attached. Hazard pictogram(s) Not applicable. Signal word Not applicable. Hazard statement(s) Precautionary statement(s) General Prevention Response Storage Disposal Additional labelling Not applicable. 2.3. Other hazards See individual kit component SDS attached.

SECTION 3: Composition/Information on Ingredients

#### 3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Does not contain any substances required to report

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

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

#### Other information

See individual kit component SDS attached.

## 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

In case of discomfort: bring the person into fresh air.



## Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

## Eye contact

Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

## Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

Burns

#### Not applicable.

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

## None known.

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

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.

## 5.3. Advice for firefighters

No specific requirements.

## SECTION 6: Accidental release measures

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

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

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

## Recommended storage material

No specific requirements

#### Storage conditions

Refer to section 7 of each kit component SDS (appended) for proper storage conditions for each kit component.

## 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

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

## 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**

Occupational exposure limits have not been defined for the substances in this product.

## Appropriate technical measures

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

Hygiene measures

Wash hands after use.

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

| Туре   | Class | Colour | Standards |  |
|--|-------|--------|-----------|--|
| Not required; e<br>case of aerosol<br>formation. | •     |        | N/A       |  |

## Skin protection

No specific requirements.

## Hand protection

| Material  | Glove thickness (mm) | Breakthrough time<br>(min.) | Standards |  |
|---|----------------------|-----------------------------|-----------|--|
| Handle with gloves.<br>Gloves must be<br>inspected prior to use.<br>Use proper glove<br>removal technique<br>(without touching<br>glove's outer surface)<br>to avoid skin contact<br>with this product.<br>Dispose of<br>contaminated gloves<br>after use in accordance<br>with applicable laws<br>and good laboratory<br>practices. Wash and<br>dry hands. |                      |                             |           |  |

| Туре   | Standards |  |
|--|-----------|--|
| Safety glasses with<br>side-shields<br>conforming to EN166.<br>Use equipment for eye<br>protection tested and<br>approved under<br>appropriate<br>government standards<br>such as NIOSH (US) or<br>EN 166(EU). | EN166     |  |
|  |           |  |



SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties
   Physical state
      Liquid
   Color
      No data available
   Odor
      No data available
   Odor threshold (ppm)
      No data available
  рΗ
      No data available
   Density (g/cm<sup>3</sup>)
      No data available
   Relative density
      No data available
   Kinematic viscosity
      No data available
   Particle characteristics
      No data available
Phase changes
   Melting point/freezing point (°F)
      No data available
   Softening point/range (°F)
      Does not apply to liquids.
   Boiling point (°F)
      No data available
  Vapor pressure
      No data available
   Relative vapor density
      No data available
   Decomposition temperature (°F)
      No data available
Data on fire and explosion hazards
  Flash point (°F)
      No data available
   Flammability (°F)
      No data available
   Auto-ignition temperature (°F)
      No data available
   Explosion limits (% v/v)
      No data available
Solubility
   Solubility in water
      Soluble
   n-octanol/water coefficient (LogKow)
      No data available
  Solubility in fat (g/L)
      No data available
9.2. Other information
   Evaporation rate (n-butylacetate = 100)
      No data available
   Other physical and chemical parameters
      No data available.
   Oxidizing properties
      No data available
```



### 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, including those associated with foreseeable emergencies
- None known.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials No specific requirements

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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

None known.

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

## RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

## 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<br>UN / II   | 14.2<br>D UN proper shipping name  | 14.3<br>Hazard class(es) | 14.4<br>PG* | 14.5<br>Env** | Other<br>informatio<br>n: |
|---|---|--|--------------------------|-------------|---------------|---------------------------|
| DOT   | -   | -  | -                        | -           | -             | -                         |
| IMDG  | -   | -  | -                        | -           | -             | -                         |
| ΙΑΤΑ  | -   | -  | -                        | -           | -             | -                         |
| 14.6. Speci<br>Not app  | ental ha<br>informa<br>gerous g<br>al preca<br>licable.<br>port in l  | tion<br>goods according to DOT, IATA and I<br>utions for user<br>bulk according to IMO instruments   | IMDG.                    |             |               |                           |
| SECTION <sup>2</sup>  | 15: Requ  | llatory information  |                          |             |               |                           |
| None<br>Clean Ai<br>None<br>EPCRA S<br>None<br>EPCRA S<br>None<br>EPCRA s<br>None<br>CERCLA<br>None<br>Hazardo<br>This<br>State regul<br>Californ<br>None<br>Massach<br>None<br>New Jer<br>None | e non-co<br>e of the o<br>r Act<br>e of the o<br>fection 3<br>e of the o<br>fection 3<br>e of the o<br>ection 3<br>e of the o<br>ection 3<br>e of the o<br>product<br>ations<br>ia / Prop<br>e of the o<br>sey / Rig<br>e of the o<br>rk / Righ | components are listed<br>components are listed<br>components are listed<br>components are listed<br>components are listed<br>13<br>components are listed<br>components are listed<br>nical inventory reporting<br>is not subject to Tier II reporting. |                          |             |               |                           |



None of the components are listed 15.4. Restrictions for application Restricted to professional users. 15.5. Demands for specific education No specific requirements. 15.6. Additional information Not applicable. 15.7. Chemical safety assessment No 15.8. Sources OSHA Hazard Communication Standard (29 CFR 1910.1200) **SECTION 16: Other information** The full text of identified uses as mentioned in section 1 None known. Abbreviations and acronyms ACGIH = American Conference of Governmental Industrial Hygienists ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS = Chemical Abstracts Service CERCLA = Comprehensive Environmental Response Compensation and Liability Act DOT = Department of Transportation EINECS = European Inventory of Existing Commercial chemical Substances EPCRA = Emergency Planning and Community Right-To-Know Act GHS = Globally Harmonized System of Classification and Labelling of Chemicals HCIS = Hazardous Chemical Information System HNOC = 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) NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health OECD = Organisation for Economic Co-operation and Development OSHA = Occupational Safety and Health Administration PBT = Persistent, Bioaccumulative and Toxic RCRA = Resource Conservation and Recovery Act RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number SARA = Superfund Amendments and Reauthorization Act SCL = A specific concentration limit. STEL = Short-term exposure limits STOT-RE = Specific Target Organ Toxicity - Repeated Exposure STOT-SE = Specific Target Organ Toxicity - Single Exposure TSCA = The Toxic Substances Control Act 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 Additional information In accordance with HCS (29 CFR 1910.1200(g)), a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis to distribute relevant information. 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

Julianne Davis

## 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: US-en



SAFETY DATA SHEET

# CellBrite<sup>™</sup> Steady Dye, 1000X in DMSO

**SECTION 1: Identification** 1.1. Product identifier Trade name CellBrite<sup>™</sup> Steady Dye, 1000X in DMSO Other names / Synonyms 30105A-100uL: CellBrite<sup>™</sup> Steady 405 Dye, 1000X in DMSO, 100 uL 30105A-20uL: CellBrite<sup>™</sup> Steady 405 Dye, 1000X in DMSO, 20 uL 30106A-100uL: CellBrite™ Steady 488 Dye, 1000X in DMSO, 100 uL 30106A-20uL: CellBrite<sup>™</sup> Steady 488 Dye, 1000X in DMSO, 20 uL 30107A-100uL: CellBrite<sup>™</sup> Steady 550 Dye, 1000X in DMSO, 100 uL 30107A-20uL: CellBrite<sup>™</sup> Steady 550 Dye, 1000X in DMSO, 20 uL 30108A-100uL: CellBrite<sup>™</sup> Steady 650 Dye, 1000X in DMSO, 100 uL 30108A-20uL: CellBrite™ Steady 650 Dye, 1000X in DMSO, 20 uL 30109A-100uL: CellBrite<sup>™</sup> Steady 685 Dye, 1000X in DMSO, 100 uL 30109A-20uL: CellBrite<sup>™</sup> Steady 685 Dye, 1000X in DMSO, 20 uL Product no. 30105A-100uL, 30105A-20uL, 30106A-100uL, 30106A-20uL, 30107A-100uL, 30107A-20uL, 30108A-100uL, 30108A-20uL, 30109A-100uL, 30109A-20uL Other means of identification CAS No.: 67-68-5 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 SDS date 3/25/2025 **SDS Version** 1.0 1.4. Emergency telephone number Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case See also section 4 "First aid measures". SECTION 2: Hazard(s) identification 2.1. Classification of the substance or mixture Not classified according to HCS (29 CFR 1910.1200)

## 2.2. Label elements



Hazard pictogram(s) Not applicable. Signal word Not applicable. Hazard statement(s) Precautionary statement(s) General -Prevention -Response -Storage -Disposal -Additional labelling

Not applicable.

SECTION 3: Composition/Information on Ingredients

#### 3.1. Substances

Does not contain any substances required to report

#### 3.2. Mixtures

Not applicable. This product is a substance.

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

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

#### Other information

No ingredients present at concentrations classified as harmful to health or the environment.

## 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

In case of discomfort: bring the person into fresh air.

## Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

#### Eye contact

Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

#### Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

Burns

Not applicable.

#### 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

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:

. Sulphur oxides Carbon oxides (CO / CO2)

## 5.3. Advice for firefighters

No specific requirements.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures 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

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

## Recommended storage material

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

## Storage conditions

Refrigerator 2°C to 8°C.

Protect from light.

Keep container tightly closed in a dry and well-ventilated place.

# Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

## 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

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)



| 2. Exposure controls  |                                    |                             |                       |  |
|---|------------------------------------|-----------------------------|-----------------------|--|
| Apply general control to  |                                    | xposure                     |                       |  |
| General recommendation  | ns<br>d consumption of food        | is not allowed in the w     | vork area             |  |
| Exposure scenarios  | u consumption or roou              | is not allowed in the w     | VOLK died.            |  |
|   | e scenarios implement              | ed for this product.        |                       |  |
| Exposure limits   | I                                  | I                           |                       |  |
|   | re limits have not been            | defined for the substa      | nces in this product. |  |
|   | easures<br>utions during use of th | e product. Avoid inhala     | ation of vapours.     |  |
| Hygiene measures<br>Wash hands after use  |                                    |                             |                       |  |
| Measures to avoid enviro<br>No specific requireme   |                                    |                             |                       |  |
| dividual protection measu   | ires, such as personal p           | protective equipment        |                       |  |
| Generally   |                                    |                             |                       |  |
|   | quipment with a recogr             | nized certification mark    | <, e.g. the UL mark.  |  |
| Respiratory Equipment   | Class                              | Colour                      | Standards             |  |
| Туре  | Class                              | Colour                      |                       |  |
| Not required; except in case of aerosol formation.  |                                    |                             | N/A                   |  |
|   |                                    |                             |                       |  |
| Skin protection<br>No specific requireme  | ents.                              |                             |                       |  |
|   | ents.                              |                             |                       |  |
| No specific requireme   | ents.<br>Glove thickness (mm)      | Breakthrough time<br>(min.) | Standards             |  |
| No specific requirement<br>Hand protection<br>Material<br>Handle with gloves.<br>Gloves must be<br>inspected prior to use.<br>Use proper glove<br>removal technique<br>(without touching<br>glove's outer surface)<br>to avoid skin contact<br>with this product.<br>Dispose of<br>contaminated gloves<br>after use in accordance<br>with applicable laws<br>and good laboratory<br>practices. Wash and<br>dry hands.                   |                                    |                             | Standards             |  |
| No specific requirement<br>Hand protection<br>Material<br>Handle with gloves.<br>Gloves must be<br>inspected prior to use.<br>Use proper glove<br>removal technique<br>(without touching<br>glove's outer surface)<br>to avoid skin contact<br>with this product.<br>Dispose of<br>contaminated gloves<br>after use in accordance<br>with applicable laws<br>and good laboratory<br>practices. Wash and<br>dry hands.<br>Eye protection | Glove thickness (mm)               |                             | Standards             |  |
| No specific requirement<br>Hand protection<br>Material<br>Handle with gloves.<br>Gloves must be<br>inspected prior to use.<br>Use proper glove<br>removal technique<br>(without touching<br>glove's outer surface)<br>to avoid skin contact<br>with this product.<br>Dispose of<br>contaminated gloves<br>after use in accordance<br>with applicable laws<br>and good laboratory<br>practices. Wash and<br>dry hands.                   |                                    |                             | Standards             |  |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state

Liquid



Color No data available. Odor No data available. Odor threshold (ppm) No data available. pН No data available. Density (q/cm<sup>3</sup>) No data available. **Kinematic viscosity** No data available. Particle characteristics Does not apply to liquids. Phase changes Melting point/freezing point (°F) No data available. Softening point/range (°F) Does not apply to liquids. Boiling point (°F) No data available. Vapor pressure No data available. Relative vapor density No data available. Decomposition temperature (°F) No data available. Data on fire and explosion hazards Flash point (°F) No data available. Flammability (°F) No data available. Auto-ignition temperature (°F) No data available. Explosion limits (% v/v) No data available. Solubility Solubility in water Soluble in water n-octanol/water coefficient (LogKow) No data available. Solubility in fat (g/L) No data available. 9.2. Other information Other physical and chemical parameters No data available. Oxidizing properties No data available.

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, including those associated with foreseeable emergencies 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

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

|                           | lological effects        |  |
|---------------------------|--------------------------|--|
| Acute toxicity            |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 401                 |  |
| Species:                  | Rat, male/female         |  |
|                           |                          |  |
| Route of exposure:        | Oral                     |  |
| Test:                     | LD50                     |  |
| Result:                   | 28,300 mg/kg             |  |
|                           |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 403                 |  |
| Species:                  | Rat, male/female         |  |
| Route of exposure:        | Inhalation               |  |
| Test:                     | LC50                     |  |
| Result:                   | 4h - > 5.33 mg/L         |  |
| Result.                   | 411 - 2 5.55 HIG/L       |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Species:                  | Rat, male/female         |  |
| Route of exposure:        | Dermal                   |  |
|                           |                          |  |
| Test:                     | LD50                     |  |
| Result:                   | 40,000 mg/kg             |  |
| Skin corrosion/irritation |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
|                           |                          |  |
| Test method:              | OECD 404                 |  |
| Species:                  | Rabbit                   |  |
| Description:              | Slight irritation 4 h    |  |
| Serious eye damage/irrita | tion                     |  |
| Product/substance         | Dimethyl sulfoxide       |  |
|                           |                          |  |
| Test method:              | OECD 405                 |  |
| Species:                  | Rabbit                   |  |
| Description:              | Slight irritation - 24 h |  |
| Respiratory sensitisation |                          |  |
|                           |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 406                 |  |
| Species:                  | Guinea pig               |  |
| Description:              | Negative                 |  |
|                           |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 429                 |  |
| Species:                  | Mouse                    |  |
| Description:              | Negative                 |  |
|                           | 2                        |  |
| Skin sensitisation        |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 406                 |  |
| Species:                  | Guinea pig               |  |
| Description:              | Negative                 |  |
| 2 cochperoni              |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
| Test method:              | OECD 429                 |  |
|                           |                          |  |
| Species:                  | Mouse                    |  |
| Description:              | Negative                 |  |
| Germ cell mutagenicity    |                          |  |
| Product/substance         | Dimethyl sulfoxide       |  |
|                           |                          |  |



| Test method:<br>Species:<br>Description:                      | OECD 471<br>S. typhimurium<br>Negative   |  |
|---|--|--|
| Product/substance<br>Test method:<br>Species:<br>Description: | Dimethyl sulfoxide<br>OECD Test Guideline 479<br>Chinese Hamster Ovary (CHO)<br>Negative |  |
| Product/substance<br>Test method:<br>Species:<br>Description: | Dimethyl sulfoxide<br>OECD 473<br>Chinese Hamster Ovary (CHO)<br>Negative                |  |
| Product/substance<br>Test method:                             | Dimethyl sulfoxide<br>OECD 474   |  |

| Product/substance | Dimethyl sulfoxide |
|-------------------|--------------------|
| Test method:      | OECD 474           |
| Species:          | Rat                |
| Description:      | Negative           |

## 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

| Product/substance | Dimethyl sulfoxide                     |
|-------------------|--|
| Test method:      | OECD 203                               |
| Species:          | Fish, Danio rerio                      |
| Duration:         | 96 hours                               |
| Test:             | LC50                                   |
| Result:           | 25,000 mg/L                            |
| Product/substance | Dimethyl sulfoxide                     |
| Test method:      | OECD 202                               |
| Species:          | Daphnia                                |
| Duration:         | 48 hours                               |
| Test:             | EC50                                   |
| Result:           | 24,600 mg/L                            |
| Product/substance | Dimethyl sulfoxide                     |
| Test method:      | OECD 201                               |
| Species:          | Algae, Pseudokirchneriella subcapitata |
| Duration:         | 72 hours                               |
| Test:             | ErC50                                  |
| Result:           | 17,000 mg/L                            |
| Product/substance | Dimethyl sulfoxide                     |
| Test method:      | ISO 8192                               |



| Duration: 30 min.<br>Test: EC50 | lant |
|---------------------------------|------|
| Result: 10 - 100 mg/L           |      |

# 12.2. Persistence and degradability

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

#### 12.3. Bioaccumulative potential

| Product/substance | Dimethyl sulfoxide            |
|-------------------|-------------------------------|
| Conclusion:       | Potential for bioaccumulation |
| Test:             | OECD Test Guideline 301D      |

## 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

This product contains substances with the potential of bioaccumulation resulting in the risk of accumulation in the food chain. Bioaccumulative substances are concentrated in adipose tissue and are not easily secreted.

SECTION 13: Disposal considerations

## RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

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 14.2<br>UN / ID UN proper shipping name | 14.3<br>Hazard class(es) | 14.4<br>PG* | 14.5 Other<br>Env** informati<br>n: |
|------|--|--------------------------|-------------|-------------------------------------|
| DOT  |  | -                        | -           |                                     |
| IMDG |  | -                        | -           |                                     |
| IATA |  | -                        | -           |                                     |

#### \* Packing group

#### \*\* Environmental hazards

Additional information

Not dangerous goods according to DOT, IATA and IMDG.

- 14.6. Special precautions for user
- Not applicable.
- 14.7. Transport in bulk according to IMO instruments No data available.

SECTION 15: Regulatory information

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

# 15.2. U.S. Federal regulations TSCA (the non-confidential portion) Dimethyl sulfoxide is listed Clean Air Act None of the components are listed EPCRA Section 302 None of the components are listed EPCRA Section 304 None of the components are listed

**EPCRA** section 313 None of the components are listed CERCLA None of the components are listed Hazardous chemical inventory reporting This product is not subject to Tier II reporting. State regulations California / Prop. 65 None of the components are listed Massachusetts / Right To Know Act None of the components are listed New Jersey / Right To Know Act Dimethyl sulfoxide / Substance number: 4145 Dimethyl sulfoxide is on the Special Health Hazard Substance List New York / Right To Know Act None of the components are listed Pennsylvania / Right To Know Act None of the components are listed 15.4. Restrictions for application Restricted to professional users. 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. 15.6. Additional information Not applicable. 15.7. Chemical safety assessment No 15.8. Sources OSHA Hazard Communication Standard (29 CFR 1910.1200) **SECTION 16: Other information** The full text of identified uses as mentioned in section 1 None known. Abbreviations and acronyms ACGIH = American Conference of Governmental Industrial Hygienists ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS = Chemical Abstracts Service CERCLA = Comprehensive Environmental Response Compensation and Liability Act DOT = Department of Transportation EINECS = European Inventory of Existing Commercial chemical Substances EPCRA = Emergency Planning and Community Right-To-Know Act GHS = Globally Harmonized System of Classification and Labelling of Chemicals HCIS = Hazardous Chemical Information System HNOC = 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) NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health OECD = Organisation for Economic Co-operation and Development OSHA = Occupational Safety and Health Administration PBT = Persistent, Bioaccumulative and Toxic



RCRA = Resource Conservation and Recovery Act

- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SARA = Superfund Amendments and Reauthorization Act
- SCL = A specific concentration limit.
- STEL = Short-term exposure limits
- STOT-RE = Specific Target Organ Toxicity Repeated Exposure
- STOT-SE = Specific Target Organ Toxicity Single Exposure
- TSCA = The Toxic Substances Control Act
- 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

## Additional information

In accordance with HCS (29 CFR 1910.1200(g)), a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis to distribute relevant information.

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

## Julianne Davis

## 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: US-en



## SAFETY DATA SHEET

# CellBrite<sup>™</sup> Steady Enhancer, 1000X in DMSO

```
SECTION 1: Identification
1.1. Product identifier
  Trade name
      CellBrite<sup>™</sup> Steady Enhancer, 1000X in DMSO
  Other names / Synonyms
     99855-20uL: CellBrite<sup>™</sup> Steady Enhancer, 1000X in DMSO, 20 uL
     99855-100uL: CellBrite<sup>™</sup> Steady Enhancer, 1000X in DMSO, 100 uL
  Product no.
     99855-20uL, 99855-100uL
  Other means of identification
      CAS No.: 67-68-5
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
     Use as laboratory reagent. For research use only. Not for food, drug, household, or cosmetic use.
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
  SDS date
     3/27/2025
  SDS Version
     1.0
1.4. Emergency telephone number
  Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org)
  to get specific guidance for your case
  See also section 4 "First aid measures".
SECTION 2: Hazard(s) identification
2.1. Classification of the substance or mixture
  Not classified according to HCS (29 CFR 1910.1200)
2.2. Label elements
  Hazard pictogram(s)
     Not applicable.
  Signal word
      Not applicable.
  Hazard statement(s)
  Precautionary statement(s)
      General
```



Prevention

Response

Storage

-Disposal

Additional labelling Not applicable.

SECTION 3: Composition/Information on Ingredients

#### 3.1. Substances

Does not contain any substances required to report

#### 3.2. Mixtures

Not applicable. This product is a substance.

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

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

#### Other information

No ingredients present at concentrations classified as harmful to health or the environment.

#### 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

In case of discomfort: bring the person into fresh air.

#### Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

#### Eye contact

Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

#### Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

Burns

Not applicable.

## 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

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:

Sulphur oxides

Carbon oxides (CO / CO2)

## 5.3. Advice for firefighters

No specific requirements.

## SECTION 6: Accidental release measures

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

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

#### Recommended storage material

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

Storage conditions

## Refrigerator 2°C to 8°C.

Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

#### 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

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

#### 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**

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

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

## Hygiene measures

Wash hands after use.

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

| Туре  | Class   | Colour | Standards |  |
|---|---------|--------|-----------|--|
| Not required; ex<br>case of aerosol<br>formation. | cept in |        | N/A       |  |

#### Skin protection

No specific requirements.

Hand protection

| Material  | Glove thickness (mm) | Breakthrough time<br>(min.) | Standards |  |
|---|----------------------|-----------------------------|-----------|--|
| Handle with gloves.<br>Gloves must be<br>inspected prior to use.<br>Use proper glove<br>removal technique<br>(without touching<br>glove's outer surface)<br>to avoid skin contact<br>with this product.<br>Dispose of<br>contaminated gloves<br>after use in accordance<br>with applicable laws<br>and good laboratory<br>practices. Wash and<br>dry hands. |                      |                             |           |  |

## Eye protection

| Туре   | Standards |
|--|-----------|
| Safety glasses with<br>side-shields<br>conforming to EN166.<br>Use equipment for eye<br>protection tested and<br>approved under<br>appropriate<br>government standards<br>such as NIOSH (US) or<br>EN 166(EU). | EN166     |



SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Physical state Liquid Color No data available. Odor No data available. Odor threshold (ppm) No data available. pH No data available. Density (g/cm<sup>3</sup>)



No data available. **Kinematic viscosity** No data available. Particle characteristics Does not apply to liquids. Phase changes Melting point/freezing point (°F) No data available. Softening point/range (°F) Does not apply to liquids. Boiling point (°F) No data available. Vapor pressure No data available. Relative vapor density No data available. Decomposition temperature (°F) No data available. Data on fire and explosion hazards Flash point (°F) No data available. Flammability (°F) No data available. Auto-ignition temperature (°F) No data available. Explosion limits (% v/v) No data available. Solubility Solubility in water Soluble in water n-octanol/water coefficient (LogKow) No data available. Solubility in fat (g/L) No data available. 9.2. Other information Other physical and chemical parameters No data available. Oxidizing properties No data available.

#### 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, including those associated with foreseeable emergencies 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

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Acute toxicity<br>Product/substance            | Dimethyl sulfoxide                            |
|--|---|
| Test method:<br>Species:                       | OECD 401<br>Rat, male/female                  |
| Route of exposure:<br>Test:                    | Oral<br>LD50                                  |
| Result:  | 28,300 mg/kg                                  |
| Product/substance<br>Test method:              | Dimethyl sulfoxide<br>OECD 403                |
| Species:<br>Route of exposure:                 | Rat, male/female<br>Inhalation                |
| Test:<br>Result:                               | LC50<br>4h - > 5.33 mg/L                      |
| Product/substance                              | Dimethyl sulfoxide                            |
| Species:<br>Route of exposure:                 | Rat, male/female<br>Dermal                    |
| Test:<br>Result:                               | LD50<br>40,000 mg/kg                          |
| Skin corrosion/irritation<br>Product/substance | Dimethyl cylfovide                            |
| Test method:                                   | Dimethyl sulfoxide<br>OECD 404<br>Rabbit      |
| Species:<br>Description:                       | Slight irritation 4 h                         |
| Serious eye damage/irrita<br>Product/substance | tion<br>Dimethyl sulfoxide                    |
| Test method:<br>Species:                       | OECD 405<br>Rabbit                            |
| Description:                                   | Slight irritation - 24 h                      |
| Respiratory sensitisation<br>Product/substance | Dimethyl sulfoxide                            |
| Test method:<br>Species:                       | OECD 406<br>Guinea pig                        |
| Description:                                   | Negative                                      |
| Product/substance<br>Test method:              | Dimethyl sulfoxide<br>OECD 429                |
| Species:<br>Description:                       | Negative                                      |
| ·  | a, the classification criteria are not met.   |
| Skin sensitisation<br>Product/substance        | Dimethyl sulfoxide                            |
| Test method:<br>Species:                       | OECD 406<br>Guinea pig                        |
| Description:                                   | Negative                                      |
| Product/substance<br>Test method:              | Dimethyl sulfoxide<br>OECD 429                |
| Species:<br>Description:                       | Negative                                      |
|  | a, the classification criteria are not met.   |
| Germ cell mutagenicity<br>Product/substance    | Dimethyl sulfoxide                            |
| Test method:<br>Species:                       | OECD 471<br>S. typhimurium                    |
| Description:                                   | Negative                                      |
| Product/substance<br>Test method:              | Dimethyl sulfoxide<br>OECD Test Guideline 479 |
| Species:                                       | Chinese Hamster Ovary (CHO)                   |
| Description:                                   | Negative                                      |
|  |   |



| Product/substance | Dimethyl sulfoxide |  |
|-------------------|--------------------|--|
| Test method:      | OECD 474           |  |
| Species:          | Rat                |  |
| Description:      | Negative           |  |

## 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

| Dimethyl sulfoxide                     |
|--|
| OECD 203                               |
| Fish, Danio rerio                      |
| 96 hours                               |
| LC50                                   |
| 25,000 mg/L                            |
| Dimethyl sulfoxide                     |
| OECD 202                               |
| Daphnia                                |
| 48 hours                               |
| EC50                                   |
| 24,600 mg/L                            |
| Dimethyl sulfoxide                     |
| OECD 201                               |
| Algae, Pseudokirchneriella subcapitata |
| 72 hours                               |
| ErC50                                  |
| 17,000 mg/L                            |
| Dimethyl sulfoxide                     |
| ISO 8192                               |
| Bacteria                               |
| Activated Sludge Plant                 |
| 30 min.                                |
| EC50                                   |
| 10 - 100 mg/L                          |
|  |

#### 12.2. Persistence and degradability

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



#### 12.3. Bioaccumulative potential

| Produ | ct/substance |
|-------|--------------|
| Concl | usion:       |
| Test: |              |

Dimethyl sulfoxide Potential for bioaccumulation OECD Test Guideline 301D

## 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

This product contains substances with the potential of bioaccumulation resulting in the risk of accumulation in the food chain. Bioaccumulative substances are concentrated in adipose tissue and are not easily secreted.

SECTION 13: Disposal considerations

## RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

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 14.2<br>UN / ID UN proper shipping name | 14.3<br>Hazard class(es) | 14.4 14.5 Other<br>PG* Env** inform<br>n: |
|------|--|--------------------------|---|
| DOT  |  | -                        |   |
| IMDG |  | -                        |   |
| IATA |  | -                        |   |
|      |  |                          |   |

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to DOT, IATA and IMDG.

14.6. Special precautions for user

## Not applicable.

14.7. Transport in bulk according to IMO instruments No data available.

## SECTION 15: Regulatory information

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

#### 15.2. U.S. Federal regulations

TSCA (the non-confidential portion) Dimethyl sulfoxide is listed Clean Air Act None of the components are listed EPCRA Section 302 None of the components are listed EPCRA Section 304 None of the components are listed EPCRA section 313 None of the components are listed CERCLA None of the components are listed Hazardous chemical inventory reporting This product is not subject to Tier II reporting. State regulations



California / Prop. 65 None of the components are listed Massachusetts / Right To Know Act None of the components are listed New Jersey / Right To Know Act Dimethyl sulfoxide / Substance number: 4145 Dimethyl sulfoxide is on the Special Health Hazard Substance List New York / Right To Know Act None of the components are listed Pennsylvania / Right To Know Act None of the components are listed 15.4. Restrictions for application Restricted to professional users. 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. 15.6. Additional information Not applicable. 15.7. Chemical safety assessment No 15.8. Sources OSHA Hazard Communication Standard (29 CFR 1910.1200) SECTION 16: Other information The full text of identified uses as mentioned in section 1 None known. Abbreviations and acronyms ACGIH = American Conference of Governmental Industrial Hygienists ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS = Chemical Abstracts Service CERCLA = Comprehensive Environmental Response Compensation and Liability Act DOT = Department of Transportation EINECS = European Inventory of Existing Commercial chemical Substances EPCRA = Emergency Planning and Community Right-To-Know Act GHS = Globally Harmonized System of Classification and Labelling of Chemicals HCIS = Hazardous Chemical Information System HNOC = 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) NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health OECD = Organisation for Economic Co-operation and Development OSHA = Occupational Safety and Health Administration PBT = Persistent, Bioaccumulative and Toxic RCRA = Resource Conservation and Recovery Act RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number SARA = Superfund Amendments and Reauthorization Act SCL = A specific concentration limit. STEL = Short-term exposure limits STOT-RE = Specific Target Organ Toxicity - Repeated Exposure STOT-SE = Specific Target Organ Toxicity - Single Exposure



TSCA = The Toxic Substances Control Act 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

Additional information

In accordance with HCS (29 CFR 1910.1200(g)), a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis to distribute relevant information.

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

Julianne Davis

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: US-en