

## SAFETY DATA SHEET

## VersaBlot™ Total Protein Normalization Kits

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

VersaBlot™ Total Protein Normalization Kits

## Other names / Synonyms

33025-T: VersaBlot™ CF@680T Total Protein Normalization Kit, 200 labelings  
33025: VersaBlot™ CF@680T Total Protein Normalization Kit, 1000 labelings  
33026-T: VersaBlot™ CF@770T Total Protein Normalization Kit, 200 labelings  
33026: VersaBlot™ CF@770T Total Protein Normalization Kit, 1000 labelings

## Kit Components:

92400A: Reactive CF@680T, 1 x 1 vial or 5 x 1 vial  
92401A: Reactive CF@770T, 1 x 1 vial or 5 x 1 vial  
99841: WB Prestaining Buffer, 1 x 1 mL or 2 x 1 mL  
99842: High Sensitivity Prestaining Buffer, 1x 1 mL or 2 x 1 mL  
99852-T: Reversal Buffer, 100 mL  
99852: Reversal Buffer, 500 mL  
99853-T: Dye Reversal Agent, 100 uL  
99853: Dye Reversal Agent, 500 uL  
99953: DMSO, Anhydrous, 150 uL

## Product no.

33025-T, 33025, 33026-T, 33026

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

## SDS date

5/30/2025

## SDS Version

1.0

## Date of previous version

5/30/2025 (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

### 2.1. Classification of the substance or mixture

See individual kit component SDS attached.

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

### 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**

-

**Hazardous substances**

Does not contain any substances required to report

**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

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

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

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 in any provincial list of substances with an occupational exposure limit.

### 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

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

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



#### Skin protection

No specific requirements.

#### Hand protection

| Material  | Glove thickness (mm) | Breakthrough time (min.) | Standards |
|---|----------------------|--------------------------|-----------|
| Handle with gloves.<br>Gloves must be inspected prior to use.<br>Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.<br>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

No data available

#### Odour

No data available

#### Odour threshold (ppm)

No data available

#### pH

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 (°C)

No data available

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°C)

No data available

##### Vapour pressure

No data available

##### Relative vapour density

No data available

##### Decomposition temperature (°C)

No data available

#### Data on fire and explosion hazards

##### Flash point (°C)

No data available

##### Flammability (°C)

No data available

##### Auto-ignition temperature (°C)

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**

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**

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

## SECTION 16: Other information

### 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

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: CA-en



## SAFETY DATA SHEET

## Reactive CF®680T, Reactive CF®770T

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

Reactive CF®680T, Reactive CF®770T

## Other names / Synonyms

92400A: Reactive CF®680T, 1 x 1 vial or 5 x 1 vial

92401A: Reactive CF®770T, 1 x 1 vial or 5 x 1 vial

## Product no.

92400A, 92401A

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

## SDS date

5/28/2025

## SDS Version

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

## 2.1. Classification of the substance or mixture

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

## 2.2. Label elements

**Hazard pictogram(s)**

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)****Precautionary statement(s)****General**

-

**Prevention**

-

**Response**

-

**Storage**

-

**Disposal**

-

**Hazardous substances**

Does not contain any substances required to report

**Additional labelling**

Not applicable.

**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

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**

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

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

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

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

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

#### Storage conditions

Freezer -10°C to -35°C.

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

Protect from light.

Desiccate.

#### 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 in any provincial list of substances with an occupational exposure limit.

### 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

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Airborne gas and dust concentrations 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 emergency eyewash and showers are clearly marked.

#### 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

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



##### Skin protection

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

Solid

#### Colour

No data available.

#### Odour

No data available.

Odour threshold (ppm)

No data available.

pH

No data available.

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

No data available.

Kinematic viscosity

Does not apply to solids.

Particle characteristics

No data available.

Phase changes

Melting point/Freezing point (°C)

No data available.

Softening point/range (°F)

Does not apply to solids.

Boiling point (°C)

Does not apply to solids.

Vapour pressure

No data available.

Relative vapour density

Does not apply to solids.

Decomposition temperature (°C)

No data available.

Data on fire and explosion hazards

Flash point (°C)

Does not apply to solids.

Flammability (°C)

No data available.

Auto-ignition temperature (°C)

No data available.

Explosion limits (% v/v)

Does not apply to solids.

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

None known.

10.4. Conditions to avoid

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

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

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

### SECTION 16: Other information

#### 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

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: CA-en



## SAFETY DATA SHEET

# Reversal Buffer

### SECTION 1: Identification

#### 1.1. Product identifier

##### Trade name

Reversal Buffer

##### Other names / Synonyms

99852-T: Reversal Buffer, 100 mL

99852: Reversal Buffer, 500 mL

##### Product no.

99852-T, 99852

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

##### SDS date

5/20/2025

##### SDS Version

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

#### 2.1. Classification of the substance or mixture

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

#### 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

## Signal word

Not applicable.

## Hazard statement(s)

## Precautionary statement(s)

## General

-

## Prevention

-

## Response

-

## Storage

-

## Disposal

-

## Hazardous substances

Does not contain any substances required to report

## Additional labelling

Not applicable.

## SECTION 3: Composition/Information on Ingredients

## 3.1. Substances

Not applicable. This product is a mixture.

## 3.2. Mixtures

| Product/substance                  | Identifiers        | % w/w | Classification   | Note |
|------------------------------------|--------------------|-------|--|------|
| hydrogen peroxide solution<br>...% | CAS No.: 7722-84-1 | 1-5%  | Ox. Liq. 1, H271 (SCL: 70.00 %)<br>Ox. Liq. 2, H272 (SCL: 50.00 %)<br>Acute Tox. 4, H302<br>Skin Corr. 1A, H314 (SCL: 70.00 %)<br>Skin Corr. 1B, H314 (SCL: 50.00 %)<br>Skin Irrit. 2, H315 (SCL: 35.00 %)<br>Eye Dam. 1, H318 (SCL: 8.00 %)<br>Eye Irrit. 2, H319 (SCL: 5.00 %)<br>Acute Tox. 4, H332<br>STOT SE 3, H335 (SCL: 35.00 %) |      |

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**

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**

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**

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

#### ALBERTA

hydrogen peroxide solution ...%

Long term exposure limit (8 hours) (ppm): 1

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 1.4

Annotations:

3 = Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.

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

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#### BRITISH COLUMBIA

hydrogen peroxide solution ...%

Time-Weighted Average Limit (TWA): 1 ppm

OHS Regulation Part 5: Chemical Agents and Biological Agents.

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#### ONTARIO

hydrogen peroxide solution ...%

Time-Weighted Average Limit (TWA): 1 ppm

Regulation 833 (Control of Exposure to Biological or Chemical Agents) and Ontario Regulation 490/09 (Designated Substances)

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#### QUEBEC

hydrogen peroxide solution ...%

Long term exposure limit (8 hours) (ppm): 1

Annotations:

Note 3 = Where the use of these products is permitted.

Regulation respecting occupational health and safety (Chapter S-2.1, r. 13)

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#### SASKATCHEWAN

hydrogen peroxide solution ...%

Long term exposure limit (8 hours) (ppm): 1

Short term exposure limit (15 minutes) (ppm): 2

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

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

| Type   | Class                | Colour                   | Standards |   |
|--|----------------------|--------------------------|-----------|---|
| Not required; except in case of aerosol formation.   |                      |                          | N/A       |    |
| <b>Skin protection</b>   |                      |                          |           |   |
| No specific requirements.  |                      |                          |           |   |
| <b>Hand protection</b>   |                      |                          |           |   |
| 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. |                      |                          |           |    |
| <b>Eye protection</b>  |                      |                          |           |   |
| 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

No data available.

#### Odour

No data available.

#### Odour threshold (ppm)

No data available.

#### pH

<3.7

#### 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 (°C)

-33

##### Softening point/range (°F)

Does not apply to liquids.

Boiling point (°C)

108

Vapour pressure

No data available.

Relative vapour density

No data available.

Decomposition temperature (°C)

No data available.

Data on fire and explosion hazards

Flash point (°C)

No data available.

Flammability (°C)

No data available.

Auto-ignition temperature (°C)

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

Decomposition temperature (Self-reactive substances and mixtures) (°C)

100

Evaporation rate (n-butylacetate = 100)

>1

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

None known.

10.4. Conditions to avoid

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

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

hydrogen peroxide solution ...% has been classified by IARC as a group 3 carcinogen.

### SECTION 12: Ecological information

#### 12.1. Toxicity

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

hydrogen peroxide solution ...%

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

### SECTION 16: Other information

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

H271, May cause fire or explosion; strong oxidiser.

H272, May intensify fire; oxidiser.

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

H335, May cause respiratory irritation.

#### 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

Not applicable.

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: CA-en

## SAFETY DATA SHEET

## High Sensitivity Prestaining Buffer

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

High Sensitivity Prestaining Buffer

## Other names / Synonyms

99842: High Sensitivity Prestaining Buffer, 1x 1 mL or 2 x 1 mL

## Product no.

99842

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

## SDS date

5/28/2025

## SDS Version

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

## 2.1. Classification of the substance or mixture

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)**

**Precautionary statement(s)**

**General**

-

**Prevention**

-

**Response**

-

**Storage**

-

**Disposal**

-

**Hazardous substances**

Does not contain any substances required to report

**Additional labelling**

Not applicable.

## 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

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

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

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

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

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

Refrigerator 2°C to 8°C.

#### 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 in any provincial list of substances with an occupational exposure limit.

### 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

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

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


##### Skin protection

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

No data available.

#### Odour

No data available.

#### Odour 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 (°C)**

No data available.

**Softening point/range (°F)**

Does not apply to liquids.

**Boiling point (°C)**

No data available.

**Vapour pressure**

No data available.

**Relative vapour density**

No data available.

**Decomposition temperature (°C)**

No data available.

**Data on fire and explosion hazards****Flash point (°C)**

No data available.

**Flammability (°C)**

No data available.

**Auto-ignition temperature (°C)**

No data available.

**Explosion limits (% v/v)**

No data available.

**Solubility****Solubility in water**

No data available.

**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**

None known.

**10.4. Conditions to avoid**

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

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

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

### SECTION 16: Other information

#### 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

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: CA-en

## SAFETY DATA SHEET

## WB Prestaining Buffer

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

WB Prestaining Buffer

## Other names / Synonyms

99841: WB Prestaining Buffer, 1 x 1 mL or 2 x 1 mL

## Product no.

99841

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

## SDS date

5/28/2025

## SDS Version

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

## 2.1. Classification of the substance or mixture

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)**

**Precautionary statement(s)**

**General**

-

**Prevention**

-

**Response**

-

**Storage**

-

**Disposal**

-

**Hazardous substances**

Does not contain any substances required to report

**Additional labelling**

Not applicable.

## 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

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

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

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

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

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

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

#### Storage conditions

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

Refrigerator 2°C to 8°C.

#### 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 in any provincial list of substances with an occupational exposure limit.

### 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

Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations 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 emergency eyewash and showers are clearly marked.

#### 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

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


##### Skin protection

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

Solid

#### Colour

No data available.

#### Odour

No data available.

#### Odour threshold (ppm)

No data available.

**pH**

No data available.

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

No data available.

**Kinematic viscosity**

Does not apply to solids.

**Particle characteristics**

No data available.

**Phase changes****Melting point/Freezing point (°C)**

No data available.

**Softening point/range (°F)**

Does not apply to solids.

**Boiling point (°C)**

Does not apply to solids.

**Vapour pressure**

No data available.

**Relative vapour density**

Does not apply to solids.

**Decomposition temperature (°C)**

No data available.

**Data on fire and explosion hazards****Flash point (°C)**

Does not apply to solids.

**Flammability (°C)**

No data available.

**Auto-ignition temperature (°C)**

No data available.

**Explosion limits (% v/v)**

Does not apply to solids.

**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**

None known.

**10.4. Conditions to avoid**

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

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

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

### SECTION 16: Other information

#### 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

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: CA-en

## SAFETY DATA SHEET

## Anhydrous DMSO

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

Anhydrous DMSO

## Other names / Synonyms

90082: Anhydrous DMSO, 10 mL  
99938: Anhydrous DMSO, 500 uL  
99953: Anhydrous DMSO, 150 uL  
99953-1: Anhydrous DMSO, 250 uL

## Product no.

90082 , 99938, 99953, 99953-1

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

## SDS date

5/29/2025

## SDS Version

3.0

## Date of previous version

2/1/2025 (2.0)

## 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 as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

### 2.1. ▼ Classification of the substance or mixture

Flam. Liq. 4; H227, Combustible liquid

### 2.2. Label elements

#### ▼ Hazard pictogram(s)

Not applicable.

#### ▼ Signal word

Warning

#### ▼ Hazard statement(s)

Combustible liquid (H227)

#### Precautionary statement(s)

General

-

#### ▼ Prevention

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

#### Response

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

#### ▼ Storage

-

#### ▼ Disposal

-

#### ▼ Hazardous substances

Does not contain any substances required to report

#### Additional labelling

Not applicable.

## SECTION 3: Composition/Information on Ingredients

### 3.1. ▼ Substances

| Product/substance  | Identifiers      | % w/w   | Classification | Note |
|--------------------|------------------|---------|----------------|------|
| Dimethyl sulfoxide | CAS No.: 67-68-5 | 95-100% |                |      |

### 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

-

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

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

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

Combustible liquid

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:

Sulphur oxides

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

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

Avoid static electricity.

Protect electrical equipment in accordance with current standards. To divert static electricity during transmission, containers must be grounded and connected by wire with the receiving containers. Do not use spark-forming tools.

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.

#### Recommended storage material

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

#### Storage conditions

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

Desiccate.

Room temperature or below. For Biotium products where the label indicates room temperature or RT, this implies storage in ambient conditions between 20°C and 30°C.

#### 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 in any provincial list of substances with an occupational exposure limit.

### 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).



## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Colour

Clear

#### Odour

Mild

#### ▼ Odour 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 (°C)

16-19

#### Softening point/range (°F)

Does not apply to liquids.

#### Boiling point (°C)

189

#### ▼ Vapour pressure

No data available.

#### Relative vapour density

1.1 g/mL

#### ▼ Decomposition temperature (°C)

No data available.

#### Data on fire and explosion hazards

Flash point (°C)

0

▼ Flammability (°C)

No data available.

Auto-ignition temperature (°C)

300 - 302

▼ Explosion limits (% v/v)

No data available.

#### Solubility

▼ Solubility in water

No data available.

n-octanol/water coefficient (LogKow)

0

▼ Solubility in fat (g/L)

No data available.

#### 9.2. Other information

Decomposition temperature (Self-reactive substances and mixtures) (°C)

> 190

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

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

|                    |                    |
|--------------------|--------------------|
| 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   |

|                   |                    |
|-------------------|--------------------|
| Product/substance | Dimethyl sulfoxide |
|-------------------|--------------------|

Species: Rat, male/female  
Route of exposure: Dermal  
Test: LD50  
Result: 40,000 mg/kg

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

#### ▼ Skin corrosion/irritation

Product/substance Dimethyl sulfoxide  
Test method: OECD 404  
Species: Rabbit  
Description: Slight irritation 4 h

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

#### ▼ Serious eye damage/irritation

Product/substance Dimethyl sulfoxide  
Test method: OECD 405  
Species: Rabbit  
Description: Slight irritation - 24 h

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

#### ▼ 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

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

#### ▼ Skin 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

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

#### ▼ Germ cell mutagenicity

Product/substance Dimethyl sulfoxide  
Test method: OECD 471  
Species: S. typhimurium  
Description: Negative

Product/substance Dimethyl sulfoxide  
Test method: OECD Test Guideline 479  
Species: Chinese Hamster Ovary (CHO)  
Description: Negative

Product/substance Dimethyl sulfoxide  
Test method: OECD 473  
Species: Chinese Hamster Ovary (CHO)  
Description: Negative

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

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

|                   |                    |
|-------------------|--------------------|
| 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               |
| Species:          | Bacteria               |
| Compartment:      | Activated Sludge Plant |
| Duration:         | 30 min.                |
| Test:             | EC50                   |
| Result:           | 10 - 100 mg/L          |

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

### 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

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

\* Packing group

\*\* Environmental hazards

### ▼ Additional information

Not dangerous goods according to TDG, IATA and IMDG.

### 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

#### NDSL

None of the components are listed

#### ▼ DSL

Dimethyl sulfoxide

### 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.

### Additional information

Not applicable.

### 15.7. Chemical safety assessment

No

### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

## SECTION 16: Other information

### 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

Not applicable.

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

## SAFETY DATA SHEET

# Dye Reversal Agent

### SECTION 1: Identification

#### 1.1. Product identifier

##### Trade name

Dye Reversal Agent

##### Other names / Synonyms

99853-T: Dye Reversal Agent, 100 uL

99853: Dye Reversal Agent, 500 uL

##### Product no.

99853-T, 99853

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

##### SDS date

5/30/2025

##### SDS Version

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

#### 2.1. Classification of the substance or mixture

Not classified as hazardous according to Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272).

#### 2.2. Label elements

**Hazard pictogram(s)**

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)****Precautionary statement(s)****General**

-

**Prevention**

-

**Response**

-

**Storage**

-

**Disposal**

-

**Hazardous substances**

Does not contain any substances required to report

**Additional labelling**

Not applicable.

**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

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**

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

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

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

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

Refrigerator 2°C to 8°C.

#### 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 in any provincial list of substances with an occupational exposure limit.

### 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

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

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



#### Skin protection

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

No data available.

#### Odour

No data available.

#### Odour 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 (°C)

No data available.

Softening point/range (°F)

Does not apply to liquids.

Boiling point (°C)

No data available.

Vapour pressure

No data available.

Relative vapour density

No data available.

Decomposition temperature (°C)

No data available.

Data on fire and explosion hazards

Flash point (°C)

No data available.

Flammability (°C)

No data available.

Auto-ignition temperature (°C)

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

None known.

10.4. Conditions to avoid

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

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

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

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

\* Packing group

\*\* Environmental hazards

#### Additional information

Not dangerous goods according to TDG, IATA and IMDG.

#### 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

##### NDSL

None of the components are listed

##### DSL

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### Sources

Hazardous Products Regulation SOR/2015-17 (as amended by SOR/2022-272)

### SECTION 16: Other information

#### 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

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.

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