

## SAFETY DATA SHEET

## DNAzure® 2.0 Visible Blue DNA Gel Stain Kit

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

DNAzure® 2.0 Visible Blue DNA Gel Stain Kit

## Other names / Synonyms

41045-T: DNAzure® 2.0 Visible Blue DNA Gel Stain Kit (Trial Size), 1 kit

41045: DNAzure® 2.0 Visible Blue DNA Gel Stain Kit, 1 kit

## Kit Components:

41045-TA: DNAzure® 2.0 Component A, 100X, 2 mL

41045A: DNAzure® 2.0 Component A, 100X, 10 mL

41045-TB: DNAzure® 2.0 Component B, 100X, 2 mL

41045B: DNAzure® 2.0 Component B, 100X, 10 mL

41045-TC: DNAzure® 2.0 Component C, 10X, 20 mL

41045C: DNAzure® 2.0 Component C, 10X, 100 mL

99859: 6X DNA Loading Buffer (Orange), 1.5 mL

## Product no.

41045-T, 41045

## 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 and industrial use.

## 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

6/11/2026

## SDS Version

1.0

## Date of previous version

6/8/2026 (1.0)

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

- 2.1. Classification of the substance or mixture**  
See individual kit component SDS attached.  
Not classified according to HCS (29 CFR 1910.1200)
- 2.2. Label elements**  
See individual kit component SDS attached.
- Hazard pictogram(s)**  
Not applicable.
- Signal word**  
Not applicable.
- Hazard statement(s)**
- Precautionary statement(s)**
- General**  
Not applicable.
- Prevention**  
Not applicable.
- Response**  
Not applicable.
- Storage**  
Not applicable.
- Disposal**  
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**  
Contains no substances that need to be listed on the label.

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

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

### Other information

-  
See individual kit component SDS attached.

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

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

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

#### Inhalation

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

None known.

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

Treat symptomatically.

#### Information to medics

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

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

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

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

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

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

#### 5.3. Advice for firefighters

No specific requirements.

### SECTION 6: Accidental release measures

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

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

**Recommended storage material**

No specific requirements

**Storage conditions**

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

**Incompatible materials**

No specific requirements

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

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

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

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

No substances are listed with a permissible exposure limit CIB 66 [NIOSH 2014-100]

**8.2. Exposure controls**

Apply general control to prevent unnecessary exposure

**General recommendations**

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

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

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

**Appropriate technical measures**

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

**Hygiene measures**

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**

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			



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

#### Color

No data available

#### Odor

No data available

#### Odor threshold (ppm)

No data available

#### pH

No data available

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

No data available

#### Relative density

No data available

#### Kinematic viscosity

No data available

#### Particle characteristics

No data available

#### Phase changes

##### Melting point/freezing point (°F)

No data available

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°F)

No data available

##### Vapor pressure

No data available

##### Relative vapor density

No data available

##### Decomposition temperature (°F)

No data available

#### Data on fire and explosion hazards

Flash point (°F)

No data available

Flammability (°F)

No data available

Auto-ignition temperature (°F)

No data available

Explosion limits (% v/v)

No data available

Solubility

Solubility in water

No data available.

n-octanol/water coefficient (LogKow)

No data available

Solubility in fat (g/L)

No data available

9.2. Other information

Evaporation rate (n-butylacetate = 100)

No data available

Other physical and chemical parameters

No data available.

Oxidizing properties

No data available

## SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No specific requirements

10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

**Carcinogenicity**

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

**Reproductive toxicity**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Long term effects**

None known.

**Other information**

None known.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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**

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

None of the components are listed

**Specific labelling**

**Contaminated packing**

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

**SECTION 14: Transport information**

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other information:</b>
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to IMO instruments**

No data available.

## SECTION 15: Regulatory information

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

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

##### TSCA (the non-confidential portion)

None of the components are listed

##### Clean Air Act

None of the components are listed

##### EPCRA Section 302

None of the components are listed

##### EPCRA Section 304

None of the components are listed

##### EPCRA section 313

None of the components are listed

##### CERCLA

None of the components are listed

##### Hazardous chemical inventory reporting

#### 15.3. State regulations

##### California / Prop. 65

None of the components are listed

##### Massachusetts / Right To Know Act

None of the components are listed

##### New Jersey / Right To Know Act

None of the components are listed

##### New York / Right To Know Act

None of the components are listed

##### Pennsylvania / Right To Know Act

None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

#### 15.5. Demands for specific education

No specific requirements.

#### 15.6. Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: Other information

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

None known.

### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogKow = logarithm of the n-octanol/water coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

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: US-en

## SAFETY DATA SHEET

## DNAzure® 2.0 Component A, 100X

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

DNAzure® 2.0 Component A, 100X

## Other names / Synonyms

41045-TA: DNAzure® 2.0 Component A, 100X, 2 mL

41045A: DNAzure® 2.0 Component A, 100X, 10 mL

## Product no.

41045-TA, 41045A

## 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 and industrial use.

## Uses advised against

None known.

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

## Company and address

**Biotium, Inc.**

46117 Landing Parkway

CA 94538 Fremont

USA

T: +1 510-265-1027

Fax: +1 510-265-1352

<http://www.biotium.com>

## E-mail

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

## SDS date

6/4/2026

## SDS Version

1.0

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

## Signal word

Not applicable.

## Hazard statement(s)

### Precautionary statement(s)

#### General

Not applicable.

#### Prevention

Not applicable.

#### Response

Not applicable.

#### Storage

Not applicable.

#### Disposal

Not applicable.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Contains no substances that need to be listed on the label.

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

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

### Other information

-

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

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

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

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

#### Inhalation

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

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

No specific requirements.

### SECTION 6: Accidental release measures

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

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid contact during pregnancy and while nursing.

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

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

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

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 with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

No substances are listed with a permissible exposure limit CIB 66 [NIOSH 2014-100]

### 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

#### General recommendations

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

#### Exposure scenarios

There are no exposure scenarios implemented for this product.

#### Exposure limits

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

#### Appropriate technical measures

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

#### Hygiene measures

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

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
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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
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## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Color

Yellow

#### Odor

No data available.

#### Odor threshold (ppm)

No data available.

#### pH

No data available.

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

No data available.

#### Kinematic viscosity

No data available.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/freezing point (°F)

No data available.

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°F)

No data available.

##### Vapor pressure

No data available.

##### Relative vapor density

No data available.

##### Decomposition temperature (°F)

No data available.

#### Data on fire and explosion hazards

##### Flash point (°F)

No data available.

##### Flammability (°F)

No data available.

##### Auto-ignition temperature (°F)

No data available.

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

No data available.

#### Solubility

#### Solubility in water

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, including those associated with foreseeable emergencies

None known.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

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

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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

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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

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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

None known.

SECTION 13: Disposal considerations

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

None of the components are listed

Specific labelling

Contaminated packing

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

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

Additional information

Not dangerous goods according to DOT, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

15.2. U.S. Federal regulations

TSCA (the non-confidential portion)

Dimethyl sulfoxide is listed

Propane-1,2-diol is listed

Clean Air Act

None of the components are listed

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

None of the components are listed

CERCLA

None of the components are listed

Hazardous chemical inventory reporting

15.3. State regulations

California / Prop. 65

None of the components are listed

Massachusetts / Right To Know Act

None of the components are listed

New Jersey / Right To Know Act

Dimethyl sulfoxide / Substance number: 4145  
Dimethyl sulfoxide is on the Special Health Hazard Substance List

—  
Propane-1,2-diol / Substance number: 3595

—  
[New York / Right To Know Act](#)

None of the components are listed

[Pennsylvania / Right To Know Act](#)

Propane-1,2-diol is listed

—  
**15.4. Restrictions for application**

Restricted to professional users.

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

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

Not applicable.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: Other information

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

None known.

**Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogKow = logarithm of the n-octanol/water coefficient

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

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

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

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

TWA = Time weighted average

UN = United Nations

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

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

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: US-en

## SAFETY DATA SHEET

## DNAzure® 2.0 Component B, 100X

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

DNAzure® 2.0 Component B, 100X

## Other names / Synonyms

41045-TB: DNAzure® 2.0 Component B, 100X, 2 mL

41045B: DNAzure® 2.0 Component B, 100X, 10 mL

## Product no.

41045-TB, 41045B

## 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 and industrial use.

## Uses advised against

None known.

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

## Company and address

**Biotium, Inc.**

46117 Landing Parkway

CA 94538 Fremont

USA

T: +1 510-265-1027

Fax: +1 510-265-1352

<http://www.biotium.com>

## E-mail

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

## SDS date

6/11/2026

## SDS Version

2.0

## Date of previous version

6/10/2026 (2.0)

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

## Signal word

Not applicable.

Hazard statement(s)

Precautionary statement(s)

General

Not applicable.

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Contains no substances that need to be listed on the label.

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

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

### Other information

-

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

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

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

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

#### Inhalation

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

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

No specific requirements.

### SECTION 6: Accidental release measures

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

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid contact during pregnancy and while nursing.

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

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

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

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 with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

No substances are listed with a permissible exposure limit CIB 66 [NIOSH 2014-100]

**8.2. Exposure controls**

Apply general control to prevent unnecessary exposure

**General recommendations**

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

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

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

**Appropriate technical measures**

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

**Hygiene measures**

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			



Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
and good laboratory practices. Wash and dry hands.			
<b>Eye protection</b>			
<b>Type</b>	<b>Standards</b>		
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

#### Color

Yellow

#### Odor

No data available.

#### Odor threshold (ppm)

No data available.

#### pH

No data available.

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

No data available.

#### Kinematic viscosity

No data available.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/freezing point (°F)

No data available.

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°F)

No data available.

##### Vapor pressure

No data available.

##### Relative vapor density

No data available.

##### Decomposition temperature (°F)

No data available.

#### Data on fire and explosion hazards

##### Flash point (°F)

No data available.

##### Flammability (°F)

No data available.

Auto-ignition temperature (°F)

No data available.

Explosion limits (% v/v)

No data available.

#### Solubility

Solubility in water

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, including those associated with foreseeable emergencies

None known.

#### 10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

Heat, flames and sparks.

#### 10.5. Incompatible materials

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

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

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**

None known.

**SECTION 13: Disposal considerations**

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

None of the components are listed

**Specific labelling**

**Contaminated packing**

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

**SECTION 14: Transport information**

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other information:</b>
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to IMO instruments**

No data available.

**SECTION 15: Regulatory information**

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

**15.2. U.S. Federal regulations**

**TSCA (the non-confidential portion)**

Dimethyl sulfoxide is listed

Propane-1,2-diol is listed

**Clean Air Act**

None of the components are listed

**EPCRA Section 302**

None of the components are listed

**EPCRA Section 304**

None of the components are listed

**EPCRA section 313**

None of the components are listed

**CERCLA**

None of the components are listed

**Hazardous chemical inventory reporting**

### 15.3. State regulations

#### California / Prop. 65

None of the components are listed

#### Massachusetts / Right To Know Act

None of the components are listed

#### New Jersey / Right To Know Act

Dimethyl sulfoxide / Substance number: 4145

Dimethyl sulfoxide is on the Special Health Hazard Substance List

—  
Propane-1,2-diol / Substance number: 3595

#### New York / Right To Know Act

None of the components are listed

#### Pennsylvania / Right To Know Act

Propane-1,2-diol is listed

### 15.4. Restrictions for application

Restricted to professional users.

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

### 15.5. Demands for specific education

No specific requirements.

### 15.6. Additional information

Not applicable.

### 15.7. Chemical safety assessment

No

### 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: Other information

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

None known.

### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogKow = logarithm of the n-octanol/water coefficient

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

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

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: US-en

## SAFETY DATA SHEET

## DNAzure® 2.0 Component C, 10X

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

DNAzure® 2.0 Component C, 10X

## ▼ Other names / Synonyms

41045-TC: DNAzure® 2.0 Component C, 10X, 20 mL

41045C: DNAzure® 2.0 Component C, 10X, 100 mL

## Product no.

41045-TC, 41045C

## 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 and industrial use.

## Uses advised against

None known.

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

## Company and address

**Biotium, Inc.**

46117 Landing Parkway

CA 94538 Fremont

USA

T: +1 510-265-1027

Fax: +1 510-265-1352

<http://www.biotium.com>

## E-mail

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

## SDS date

6/8/2026

## SDS Version

1.0

## Date of previous version

6/4/2026 (1.0)

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

## Signal word

Not applicable.

Hazard statement(s)

Precautionary statement(s)

General

Not applicable.

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Contains no substances that need to be listed on the label.

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

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

### Other information

-

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

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

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

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

#### Inhalation

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

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

#### 5.3. Advice for firefighters

No specific requirements.

### SECTION 6: Accidental release measures

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

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

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 with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

No substances are listed with a permissible exposure limit CIB 66 [NIOSH 2014-100]

**8.2. Exposure controls**

Apply general control to prevent unnecessary exposure

**General recommendations**

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

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

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

**Appropriate technical measures**

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

**Hygiene measures**

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**

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

#### Color

Clear

#### Odor

No data available.

#### Odor threshold (ppm)

No data available.

#### pH

No data available.

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

No data available.

#### Kinematic viscosity

No data available.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/freezing point (°F)

No data available.

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°F)

No data available.

##### Vapor pressure

No data available.

##### Relative vapor density

No data available.

##### Decomposition temperature (°F)

No data available.

#### Data on fire and explosion hazards

##### Flash point (°F)

No data available.

##### Flammability (°F)

No data available.

##### Auto-ignition temperature (°F)

No data available.

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

No data available.

#### Solubility

#### Solubility in water

Soluble in water

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

No data available.

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

No data available.

### 9.2. Other information

#### Other physical and chemical parameters

No data available.

#### Oxidizing properties

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

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

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

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

#### Respiratory sensitisation

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

#### Skin sensitisation

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

#### Germ cell mutagenicity

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

#### Carcinogenicity

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

#### Reproductive toxicity

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

#### STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

#### Long term effects

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

**Other information**

2,2',2''-nitritotriethanol has been classified by IARC as a group 3.

**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**

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

None of the components are listed

**Specific labelling**

**Contaminated packing**

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

**SECTION 14: Transport information**

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other information:</b>
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to IMO instruments**

No data available.

**SECTION 15: Regulatory information**

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

**15.2. U.S. Federal regulations**

TSCA (the non-confidential portion)

2,2',2''-nitritotriethanol is listed

**Clean Air Act**

None of the components are listed

**EPCRA Section 302**

None of the components are listed

**EPCRA Section 304**

None of the components are listed

**EPCRA section 313**

None of the components are listed

**CERCLA**

None of the components are listed

**Hazardous chemical inventory reporting**

**15.3. State regulations**

**California / Prop. 65**

None of the components are listed

**Massachusetts / Right To Know Act**

None of the components are listed

**New Jersey / Right To Know Act**

2,2',2''-nitritotriethanol / Substance number: 4094

—

**New York / Right To Know Act**

None of the components are listed

**Pennsylvania / Right To Know Act**

2,2',2''-nitritotriethanol is listed

—

**15.4. Restrictions for application**

Restricted to professional users.

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

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

Not applicable.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 16: Other information**

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

None known.

**Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogKow = logarithm of the n-octanol/water coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

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: US-en

## SAFETY DATA SHEET

## 6X DNA Loading Buffers (Blue or Orange)

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

6X DNA Loading Buffers (Blue or Orange)

## Other names / Synonyms

99859: 6X DNA Loading Buffer (Orange), 1.5 mL

99859-1: 6X DNA Loading Buffers (Orange), 4 x 1.5 mL

99962-1: 6X DNA Loading Buffers (Blue), 4 x 1.5 mL

## Product no.

99859, 99859-1, 99962-1

## 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 and industrial use.

## Uses advised against

None known.

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

## Company and address

**Biotium, Inc.**

46117 Landing Parkway

CA 94538 Fremont

USA

T: +1 510-265-1027

Fax: +1 510-265-1352

<http://www.biotium.com>

## E-mail

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

## SDS date

6/5/2026

## SDS Version

1.0

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

## 2.1. Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

## 2.2. Label elements

## Hazard pictogram(s)

Not applicable.

## Signal word

Not applicable.

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

Not applicable.

**Prevention**

Not applicable.

**Response**

Not applicable.

**Storage**

Not applicable.

**Disposal**

Not applicable.

**SECTION 3: Composition/Information on Ingredients****3.1. Substances**

Not applicable. This product is a mixture.

**3.2. Mixtures**

Contains no substances that need to be listed on the label.

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

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

**Other information**

-

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

**SECTION 4: First-aid measures****4.1. Description of first aid measures****General information**

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

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

**Inhalation**

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

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

Not applicable.

#### 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

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

Freezer -10°C to -35°C.

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

##### Incompatible materials

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

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

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

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

### Glycerol

Long term exposure limit (OSHA Table Z-1) (mg/m<sup>3</sup>): 15 (total dust) / 5 (Respirable fraction)

Long term exposure limit (NIOSH REL) (mg/m<sup>3</sup>): 10

No substances are listed with a permissible exposure limit CIB 66 [NIOSH 2014-100]

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

## 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

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

#### Color

No data available.

#### Odor

No data available.

#### Odor threshold (ppm)

No data available.

#### pH

No data available.

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

No data available.

#### Kinematic viscosity

No data available.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/freezing point (°F)

No data available.

##### Softening point/range (°F)

Does not apply to liquids.

##### Boiling point (°F)

No data available.

##### Vapor pressure

No data available.

##### Relative vapor density

No data available.

##### Decomposition temperature (°F)

No data available.

#### Data on fire and explosion hazards

##### Flash point (°F)

No data available.

##### Flammability (°F)

No data available.

##### Auto-ignition temperature (°F)

No data available.

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

No data available.

## Solubility

### Solubility in water

Soluble in water

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

No data available.

### Solubility in fat (g/L)

No data available.

## 9.2. Other information

### Other physical and chemical parameters

No data available.

### Oxidizing properties

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

### 10.4. Conditions to avoid

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**

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

None of the components are listed

**Specific labelling**

**Contaminated packing**

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

**SECTION 14: Transport information**

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other information:</b>
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to IMO instruments**

No data available.

**SECTION 15: Regulatory information**

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

**15.2. U.S. Federal regulations**

**TSCA (the non-confidential portion)**

Glycerol is listed

**Clean Air Act**

None of the components are listed

#### EPCRA Section 302

None of the components are listed

#### EPCRA Section 304

None of the components are listed

#### EPCRA section 313

None of the components are listed

#### CERCLA

None of the components are listed

#### Hazardous chemical inventory reporting

### 15.3. State regulations

#### California / Prop. 65

None of the components are listed

#### Massachusetts / Right To Know Act

Glycerol is listed

#### New Jersey / Right To Know Act

Glycerol / Substance number: 3319

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#### New York / Right To Know Act

None of the components are listed

#### Pennsylvania / Right To Know Act

Glycerol is listed

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### 15.4. Restrictions for application

Restricted to professional users.

### 15.5. Demands for specific education

No specific requirements.

### 15.6. Additional information

Not applicable.

### 15.7. Chemical safety assessment

No

### 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: Other information

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

None known.

### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogKow = logarithm of the n-octanol/water coefficient

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

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

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

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

TWA = Time weighted average

UN = United Nations

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

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

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.

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