

**SAFETY DATA SHEET**

Date: October 27, 2022

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** FITC Annexin V  
**Catalog Number:** 99903  
**Unit Size:** 250 uL  
**Manufacturer/Supplier:** Biotium, Inc.  
46117 Landing Parkway, Fremont, CA 94538, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

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

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**2. HAZARDS IDENTIFICATION****GHS classification**

Acute Tox. 2  
Acute Tox.1  
STOT RE 2  
Aquatic Acute 1  
Aquatic Chronic 1  
M-Factor - Aquatic Acute:1  
M-Factor – Aquatic Chronic: 1

**Signal word** Danger**Health hazards**

Acute toxicity, Oral (Category 2), H300  
Acute toxicity, Inhalation (Category 2), H330  
Acute toxicity, Dermal (Category 1), H310  
Specific target organ toxicity - repeated exposure, Oral (Category 2), Brain, H373  
Short-term (acute) aquatic hazard (Category 1), H400  
Long-term (chronic) aquatic hazard (Category 1), H410

**Physical hazards**

Contact with acids liberates very toxic gas. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides.

**Hazard statements**

H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled.  
H373 May cause damage to organs (Brain) through prolonged or repeated exposure if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P260 Do not breathe dust.  
P262 Do not get in eyes, on skin, or on clothing.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing.  
P284 Wear respiratory protection.  
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.  
P302 + P350 + P310 IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/ physician.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P314 Get medical advice/ attention if you feel unwell.  
P362 Take off contaminated clothing and wash before reuse.  
P391 Collect spillage.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

### GHS hazard pictogram



### WHMIS classification

Acute toxicity - oral - Category 2  
Specific target organ toxicity - single exposure - Category 1  
Specific target organ toxicity - repeated exposure - Category 1



Danger  
Fatal if swallowed (H300)  
Causes damage to organs (H370)  
Causes damage to organs through prolonged or repeated exposure (H372)

### NFPA Rating

Health hazard: 4  
Fire: 1  
Reactivity Hazard: 3

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

Acute Tox. 2 \*  
Aquatic Acute 1  
Aquatic Chronic 1

### Labeling according to Regulation (EC) No 1272/2008[CLP]

### Hazard pictogram



### Signal word

Danger

### Hazard statements

H300 Fatal if swallowed  
H400 Very toxic to aquatic life,  
H410 Very toxic to aquatic life with long lasting effects

### Precautionary statements

P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink, or smoke when using this product. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P330 Rinse mouth.

P405 Store locked up.  
P501 Dispose of contents/container to approved hazardous waste disposal plant.  
P273 Avoid release to the environment.  
P391 Collect spillage

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No.	EC No.	Weight %	Classification
Sodium azide	26628-22-8	247-852-1	0.1%	Acute Tox. 2 Acute Tox.1 STOT RE 2 Aquatic Acute 1 Aquatic Chronic 1 M-Factor - Aquatic Acute:1 M-Factor – Aquatic Chronic: 1  See Section 2

### 4. FIRST-AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIREFIGHTING MEASURES

**Extinguishing media****Suitable extinguishing media**

Sand, Special powder against metal fire, Cement

**Unsuitable extinguishing media**

Foam, Water

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

Sodium oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

**Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### Reference to other sections

For disposal see section 13.

Store at 4°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Substance: Sodium azide

CAS no. 26628-22-8 (as NaN<sub>3</sub>)

Country	Australia	Austria	Belgium	Canada (Ontario)	Canada (Quebec)	Denmark	European Union	Finland	France
Limit value, 8hours	--	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup> (1)(2)	--	--	0,1 mg/m <sup>3</sup> (1)	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>
Limit value, short term	0,11 ppm 0,13 mg/m <sup>3</sup> (1)(2)	0,3 mg/m <sup>3</sup>	0,3 mg/m <sup>3</sup> (1)(2)(3)	0,29 mg/m <sup>3</sup> (1)	0,29 ppm (1)	0,2 mg/m <sup>3</sup> (1)(2)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)

Country	Germany (AGS)	Germany (DFG)	Hungary	Ireland	Italy	Latvia	New Zealand	Norway	Peoples Republic of China	Poland
Limit value, 8hours	0,2 mg/m <sup>3</sup>	0,2 mg/m <sup>3</sup> (1)	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup> (1)	0,1 mg/m <sup>3</sup>	--	0,1 mg/m <sup>3</sup>	--	0,1 mg/m <sup>3</sup>
Limit value, short term	0,4 mg/m <sup>3</sup> (1)	0,4 mg/m <sup>3</sup> (1)(2)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)(2)	0,3 mg/m <sup>3</sup> (1)	0,11 ppm (1) 0,29 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup>

Country	Romania	South Africa	South Korea	Spain	Sweden	Switzerland	The Netherlands	Turkey	United Kingdom	USA-NIOSH
Limit value, 8 hours	0,1 mg/m <sup>3</sup>	--	--	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>	0,2 mg/m <sup>3</sup> inhalable aerosol	0,1 mg/m <sup>3</sup> (1)	0,1 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>	0,3 ppm (1)(2)
Limit value, short term	0,3 mg/m <sup>3</sup> (1)	0,6 mg/m <sup>3</sup> (1)(2)	0,29 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup>	0,3 mg/m <sup>3</sup> (1)	0,4 mg/m <sup>3</sup> inhalable aerosol	0,3 mg/m <sup>3</sup> (1)(2)	0,3 mg/m <sup>3</sup> (1)	0,3 mg/m <sup>3</sup>	--

Australia (1) Ceiling limit value (2) For the two substances marked with this footnote (Benomyl, and Sodium azide), the exposure standards are established as gravimetric (mg/m<sup>3</sup>) values and converted into volumetric values.

Belgium (1) Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (2) Additional indication "M" means that irritation occurs when the exposure exceeds the limit value or there is a risk of acute poisoning. The work process must be designed in such a way that the exposure never exceeds the limit value. For evaluation, the sampled period should be as short as possible. However, the sampled period shall be long enough to perform a reliable measurement. The measured result shall be related to the considered period. (3) 15 minutes average value

Canada - Ontario (1) Ceiling limit value

Canada - Québec (1) Ceiling limit value

Denmark (1) Skin (2) 15 minutes average value

European Union (1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)

Finland (1) 15 minutes average value

France Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value

Germany (AGS) (1) 15 minutes average value

Germany (DFG) (1) Inhalable fraction (2) 15 minutes average value

Hungary (1) 15 minutes average value

Ireland (1) 15 minutes reference period

Italy (1) Skin (2) 15 minutes average value

Latvia (1) 15 minutes average value

New Zealand (1) Ceiling limit value

Norway (1) 15 minutes average value

People's Republic of China (1) Ceiling Limit value

Romania (1) 15 minutes average value

South Africa (1) Ceiling limit value (2) Skin

South Korea (1) Ceiling limit value

Spain skin

Sweden (1) 15 minutes average value

The Netherlands (1) Skin (2) 15 minutes average

Turkey (1) 15 minutes average value

USA - NIOSH (1) Ceiling limit value (2) Skin

## Precautions for safe handling

### Advice on safe handling

Work under hood. Do not inhale substance/mixture.

### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Conditions for safe storage, including any incompatibilities

#### Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Do not store near acids.

#### Storage class

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

#### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Store at 4°C.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	FITC Annexin V
Appearance	Liquid
Odor	No data available
Odor threshold	No data available
pH	7-8
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available
Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Highly reactive

Risk of dust explosion.

Contact with acids liberates very toxic gas.

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

Heavy metals

Bromine

Dimethylsulfate

Acid

Dichloromethane

Carbon disulfide

Sulfuric acid

Halogenated hydrocarbon

Copper

Lead

Chromyl chloride

Generates dangerous gases or fumes in contact with:

Acids

Water with Heat.

Violent reactions possible with:

Nitrates

Benzoyl chloride

Generates dangerous gases or fumes in contact with:

Acids

### Conditions to avoid

An explosion occurred when a mixture of sodium azide, methylene chloride, dimethyl sulfoxide, and sulfuric acid were being concentrated on a rotary evaporator.

Strong heating (decomposition).

### Exposure to moisture.

no information available

**Incompatible materials**

Aluminum, Heavy metals

**Hazardous decomposition products**

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

LD50 Oral - Rat - 27 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - male and female - 4 h - 0.054 - 0.52 mg/l - dust/mist (US-EPA)

LD50 Dermal - Rabbit - 20 mg/kg

Remarks: (RTECS)

No data available

**Skin corrosion/irritation**

Skin - In vitro study

Result: No skin irritation

(OECD Test Guideline 439)

**Serious eye damage/eye irritation**

Eyes - Bovine cornea

Result: No eye irritation - 4 h

(OECD Test Guideline 437)

**Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

**Germ cell mutagenicity**

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: unscheduled DNA synthesis assay

Test system: Chinese hamster lung cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 482

Result: negative

Test Type: sister chromatid exchange assay

Test system: Chinese hamster ovary cells

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 479

Result: negative

**Carcinogenicity**

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

Oral - May cause damage to organs through prolonged or repeated exposure. - Brain

**Aspiration hazard**

No data available

**Additional Information**

RTECS: VY8050000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Nausea, Headache, Vomiting, Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 2.75 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0.35 mg/l - 96 h (OECD Test Guideline 201)

**Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganicsubstances.

**Bioaccumulative potential** No data available**Mobility in soil** No data available**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Endocrine disrupting properties** No data available**Other adverse effects** No data available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

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**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 1687

Class: 6.1 Packing group: II

Proper shipping name: Sodium azide

Reportable Quantity (RQ): 1000 lbs

Poison Inhalation Hazard: No

**IMDG**

UN number: 1687

Class: 6.1

Packing group: II

EMS-No: F-A, S-A

Proper shipping name: SODIUM AZIDE

Marine pollutant : yes



**IATA**

UN number: 1687  
Class: 6.1  
Packing group: II  
Proper shipping name: Sodium azide

**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code**      None

**Special precaution for user**      None

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**15. REGULATION INFORMATION****US Federal Regulations**

US Toxic Substances Control Act (TSCA): Not listed

SARA 302 Components sodium azide CAS-No. 26628-22-8 Revision Date 2007-07-01

SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313: sodium azide CAS-No. 26628-22-8 Revision Date 2007-07-01

SARA 311/312 Hazards: Acute Health Hazard

**WHMIS Hazard Class**

Acute toxicity - oral - Category 2  
Specific target organ toxicity - single exposure - Category 1  
Specific target organ toxicity - repeated exposure - Category 1

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**16. OTHER INFORMATION**

Classification according to Regulation (EC) Nr. 1272/2008  
Refer to section 2 and section 3

Prepared by:      Regulatory Department  
                         Biotium Inc.

Version no.      4

Revision date (Initials)      10/27/2022 (JD)

Reason for revision      Updated reportable components.

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.

## SAFETY DATA SHEET

Date: October 27, 2022

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 5X Annexin Binding Buffer  
**Catalog Number:** 99902  
**Unit Size:** 15 mL  
**Manufacturer/Supplier:** Biotium, Inc.  
46117 Landing Parkway, Fremont, CA 94538, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

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

### 2. HAZARDS IDENTIFICATION

**GHS classification**

**Signal word** None  
**Health hazards** None  
**Physical hazards** None  
**Hazard statements** None  
**Precautionary statements** None  
**GHS hazard pictogram** None

**WHMIS classification** None**NFPA Rating**

Health hazard: 0  
Fire: 0  
Reactivity Hazard: 0

**Classification according to Regulation (EC) No 1272/2008[CLP]** None**Labeling according to Regulation (EC) No 1272/2008[CLP]**

**Hazard pictogram** None  
**Signal word** None  
**Hazard statements** None  
**Precautionary statements** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

No components present at concentrations classified as hazardous to health or the environment.

### 4. FIRST-AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for firefighting if necessary.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

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## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

**Conditions for safe storage**

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

Store at 4°C.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

None

**Personal protective equipment****Hand protection**

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.

**Respiratory protection**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye protection**

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).

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	5X Annexin Binding Buffer
Appearance	Liquid
Odor	No data available
Odor threshold	No data available
pH	7-8
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available

Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

Heat, flames and sparks.

### Materials to avoid

No data available

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50** None

**Inhalation LC50** None

**Dermal LD50** None

**Other information on acute toxicity** No data available

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** No data available

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity** No data available

### Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

### Aspiration hazard

No data available

### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

**Additional Information**

RTECS: None

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**12. ECOLOGICAL INFORMATION**

**Toxicity** No information available  
**Persistence and degradability** No information available  
**Bioaccumulative potential** No information available  
**Mobility in soil** No information available  
**Results of PBT and vPvB assessment** No information available  
**Other adverse effects** No information available  
**Additional information** No information available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local, state, or national regulation for proper disposal.

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**14. TRANSPORT INFORMATION**

**IATA, IMDG, DOT (US), TDG** Not dangerous goods during transportation  
**UN number** None  
**UN proper shipping name** None  
**Transport hazard class** None  
**Packing group** None  
**Environmental hazards** None  
**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** None  
**Special precaution for user** None

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**15. REGULATION INFORMATION****US Federal Regulations**

US Toxic Substances Control Act (TSCA): Not listed  
SARA 302: No chemicals were found.  
SARA 313: No chemicals were found.  
SARA 311/312: No chemicals were found

**WHMIS Hazard Class** None

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**16. OTHER INFORMATION**

Classification according to Regulation (EC) Nr. 1272/2008  
Refer to section 2 and section 3

Prepared by: Regulatory Department  
Biotium Inc.  
Version no. 5  
Revision date (Initials) 10/27/22 (JD)  
Reason for revision Updated to new document template.

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.

**SAFETY DATA SHEET**

Date: October 27, 2022

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Ethidium Homodimer III  
**Catalog Number:** 99904  
**Unit Size:** 250 uL  
**Manufacturer/Supplier:** Biotium, Inc.  
46117 Landing Parkway, Fremont, CA 94538, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

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

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**2. HAZARDS IDENTIFICATION****GHS classification**

**Signal word** None  
**Health hazards** None  
**Physical hazards** None  
**Hazard statements** None  
**Precautionary statements** None  
**GHS hazard pictogram** None

**WHMIS classification** None**NFPA Rating**

Health hazard: 0  
Fire: 0  
Reactivity Hazard: 0

**Classification according to Regulation (EC) No 1272/2008[CLP]** None**Labeling according to Regulation (EC) No 1272/2008[CLP]**

**Hazard pictogram** None  
**Signal word** None  
**Hazard statements** None  
**Precautionary statements** None

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

No components present at concentrations classified as hazardous to health or the environment.

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**4. FIRST-AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for firefighting if necessary.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

---

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

**Conditions for safe storage**

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

Store at 4°C.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

None

**Personal protective equipment****Hand protection**

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.

**Respiratory protection**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye protection**

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).

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Ethidium Homodimer III
Appearance	Red solution
Odor	No data available
Odor threshold	No data available
pH	7-8
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available

Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

Heat, flames and sparks.

### Materials to avoid

No data available

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50** None

**Inhalation LC50** None

**Dermal LD50** None

**Other information on acute toxicity** No data available

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** No data available

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity** No data available

### Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

### Aspiration hazard

No data available

### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.



**Additional Information**

RTECS: None

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**12. ECOLOGICAL INFORMATION**

**Toxicity** No information available  
**Persistence and degradability** No information available  
**Bioaccumulative potential** No information available  
**Mobility in soil** No information available  
**Results of PBT and vPvB assessment** No information available  
**Other adverse effects** No information available  
**Additional information** No information available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local, state, or national regulation for proper disposal.

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**14. TRANSPORT INFORMATION**

**IATA, IMDG, DOT (US), TDG** Not dangerous goods during transportation  
**UN number** None  
**UN proper shipping name** None  
**Transport hazard class** None  
**Packing group** None  
**Environmental hazards** None  
**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** None  
**Special precaution for user** None

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**15. REGULATION INFORMATION****US Federal Regulations**

US Toxic Substances Control Act (TSCA): Not listed  
SARA 302: No chemicals were found.  
SARA 313: No chemicals were found.  
SARA 311/312: No chemicals were found

**WHMIS Hazard Class** None

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**16. OTHER INFORMATION**

Classification according to Regulation (EC) Nr. 1272/2008  
Refer to section 2 and section 3

Prepared by: Regulatory Department  
Biotium Inc.  
Version no. 5  
Revision date (Initials) 10/27/22 (JD)  
Reason for revision Updated to new document template.

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.

## SAFETY DATA SHEET

Date: June 20, 2019

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Hoechst 33342  
**Catalog Number:** 30018C  
**Unit Size:** 250 uL  
**Manufacturer/Supplier:** Biotium, Inc.  
46117 Landing Parkway, Fremont, CA 94538, USA  
Phone: 1-510-265-1027, Fax: 1-510-265-1352  
Web: <http://www.biotium.com>

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

### 2. HAZARDS IDENTIFICATION

**GHS classification**

**Signal word** None  
**Health hazards** None  
**Physical hazards** None  
**Hazard statements** None  
**Precautionary statements** None  
**GHS hazard pictogram** None

**WHMIS classification** None**NFPA Rating**

Health hazard: 0  
Fire: 0  
Reactivity Hazard: 0

**Classification according to Regulation (EC) No 1272/2008[CLP]** None**Labeling according to Regulation (EC) No 1272/2008[CLP]**

**Hazard pictogram** None  
**Signal word** None  
**Hazard statements** None  
**Precautionary statements** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

No components present at concentrations classified as hazardous to health or the environment.

### 4. FIRST-AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for firefighting if necessary.

---

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

---

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

**Conditions for safe storage**

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

Store at 4°C.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

None

**Personal protective equipment****Hand protection**

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.

**Respiratory protection**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye protection**

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).

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Hoechst 33342
Appearance	Liquid
Odor	No data available
Odor threshold	No data available
pH	7-8
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporate rate	No data available

Flammability	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

Heat, flames and sparks.

### Materials to avoid

No data available

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50** None

**Inhalation LC50** None

**Dermal LD50** None

**Other information on acute toxicity** No data available

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** No data available

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity** No data available

### Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

### Aspiration hazard

No data available

### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

**Additional Information**

RTECS: None

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**12. ECOLOGICAL INFORMATION**

**Toxicity** No information available  
**Persistence and degradability** No information available  
**Bioaccumulative potential** No information available  
**Mobility in soil** No information available  
**Results of PBT and vPvB assessment** No information available  
**Other adverse effects** No information available  
**Additional information** No information available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local, state, or national regulation for proper disposal.

---

**14. TRANSPORT INFORMATION**

**IATA, IMDG, DOT (US), TDG** Not dangerous goods during transportation  
**UN number** None  
**UN proper shipping name** None  
**Transport hazard class** None  
**Packing group** None  
**Environmental hazards** None  
**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** None  
**Special precaution for user** None

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**15. REGULATION INFORMATION****US Federal Regulations**

US Toxic Substances Control Act (TSCA): Not listed  
SARA 302: No chemicals were found.  
SARA 313: No chemicals were found.  
SARA 311/312: No chemicals were found

**WHMIS Hazard Class** None

---

**16. OTHER INFORMATION**

Classification according to Regulation (EC) Nr. 1272/2008  
Refer to section 2 and section 3

Prepared by: Regulatory Department  
Biotium Inc.  
Version no. 4  
Revision date (Initials) 10/27/2022 (JD)  
Reason for revision Updated to new document template.

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