

# SAFETY DATA SHEET

Date: October 26, 2022

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Caspase-3 Inhibitor Ac-DEVD-CHO, 2 mM in DMSO  
**Catalog Number:** 99969  
**Unit Size:** 100 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** None  
**Signal word** None  
**Health hazards** None  
**Physical hazards** None  
**Hazard statements** None  
**Precautionary statements** None  
**GHS hazard pictogram** None

**WHMIS classification**  
Flammable liquids - Category 4

**NFPA Rating**  
Health hazard: 2  
Fire: 2  
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

Name	CAS No.	EC No.	Weight %	Classification
DMSO	67-68-5	200-664-3	>99%	Flammable liquids - Category 4 (WHMIS)

## 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**

Substance: Dimethylsulfoxide

CAS no. 67-68-5

Country	Austria	Denmark	Finland	Germany (AGS)	Germany (DFG)	Sweden	Switzerland
Limit value, 8hours	50 ppm 160 mg/m3	50 ppm 160 mg/m3	50 ppm	50 ppm (1) 160 mg/m3 (1)	50 ppm (1) 160 mg/m3 (1)	50 ppm 150 mg/m3	50 ppm 160 mg/m3
Limit value, short term	-	100 ppm 320 mg/m3	-	100 ppm (1)(2) 320 mg/m3 (1)(2)	100 ppm (1)(2) 320 mg/m3 (1)(2)	150 ppm (1) 500 mg/m3 (1)	100 ppm 320 mg/m3

Germany (AGS): (1) Skin (2) 15 minutes average value

Germany (DFG): (1) Skin (2) 15 minutes average value

Sweden: (1) 15 minutes average value

**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	Ac-DEVD-CHO, 2 mM in DMSO
Appearance	Solution
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling point	No information available
Flash point	No information available
Evaporate rate	No information available
Flammability	No information available
Explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

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**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

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

**Oral LD50** Rat – male and female – 28,300 mg/kg (OECD Test Guideline 401)  
**Inhalation LC50** Rat – male and female – 4 h - > 5.33 mg/l (OECD Test Guideline 403)  
**Dermal LD50** Rat – male and female – 40,000 mg/kg Remarks: (ECHA)  
**Other information on acute toxicity** No data available

**Skin corrosion/irritation**

Skin – Rabbit  
Result: slight irritation – 4 h  
(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes – Rabbit  
Result: slight irritation – 24 h  
(OECD Test Guideline 405)

**Respiratory or skin sensitization**

Maximization Test – Guinea pig  
Result: negative  
(OECD Test Guideline 406)  
Local lymph node assay (LLNA) – Mouse  
Result: negative  
(OECD Test Guideline 429)

**Germ cell mutagenicity**

Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 479  
Result: negative  
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: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)  
Species: Rat

Application Route: Intraperitoneal  
Method: OECD Test Guideline 474  
Result: negative

**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**

Repeated dose toxicity - Rat - male and female - Oral - 18 Months - NOAEL (No observed adverse effect level) - 3,300 mg/kg - LOAEL (Lowest observed adverse effect level) - 9,900 mg/kg

Repeated dose toxicity - Monkey - male and female - Dermal - 18 Months - NOAEL (No observed adverse effect level) -  $\geq$  8,910 mg/kg - LOAEL (Lowest observed adverse effect level) - 990 mg/kg

Exposure to large amounts can cause: redness of skin, Itching, burning, sedation, Headache, Nausea, Dizziness

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

Eyes - Eye disease - Based on Human Evidence

RTECS: PV6210000 (DMSO)

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## 12. ECOLOGICAL INFORMATION

**Toxicity**

Toxicity to fish: static test LC50 - Danio rerio (zebra fish) -  $>$  25,000 mg/l - 96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - 24,600 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 17,000 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria EC50 - activated sludge - 10 - 100 mg/l - 30 min  
(ISO 8192)

**Persistence and degradability**

No information available

**Bioaccumulative potential**

aerobic - Exposure time 28 d

Result: 31 % - Not readily biodegradable.

(OECD Test Guideline 301D)

**Mobility in soil**

No information available

**Results of PBT and vPvB assessment**

No information available

**Other adverse effects**

No information available

**Additional information**

Stability in water - 0.12 - 1.2 h at 30 °C pH 7

Remarks: Hydrolyzes readily.

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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: DMSO: fire hazard, chronic health hazard

**WHMIS Hazard Class** Flammable liquids - Category 4

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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. 7

Revision date (Initials) 10/26/2022 (JD)

Reason for revision Update 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 26, 2022

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** NucView 488 Caspase-3 Substrate, 0.2 mM in DMSO  
**Catalog Number:** 99925  
**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** None  
**Signal word** None  
**Health hazards** None  
**Physical hazards** None  
**Hazard statements** None  
**Precautionary statements** None  
**GHS hazard pictogram** None

**WHMIS classification**  
Flammable liquids - Category 4

**NFPA Rating**  
Health hazard: 2  
Fire: 2  
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

Name	CAS No.	EC No.	Weight %	Classification
DMSO	67-68-5	200-664-3	>99%	Flammable liquids - Category 4 (WHMIS)

## 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**

Substance: Dimethylsulfoxide

CAS no. 67-68-5

Country	Austria	Denmark	Finland	Germany (AGS)	Germany (DFG)	Sweden	Switzerland
Limit value, 8hours	50 ppm 160mg/m <sup>3</sup>	50 ppm 160mg/m <sup>3</sup>	50 ppm	50 ppm (1) 160 mg/m <sup>3</sup> (1)	50 ppm (1) 160 mg/m <sup>3</sup> (1)	50 ppm 150 mg/m <sup>3</sup>	50 ppm 160mg/m <sup>3</sup>
Limit value, short term	-	100 ppm 320mg/m <sup>3</sup>	-	100 ppm (1)(2) 320mg/m <sup>3</sup> (1)(2)	100 ppm (1)(2) 320mg/m <sup>3</sup> (1)(2)	150 ppm (1) 500 mg/m <sup>3</sup> (1)	100 ppm 320mg/m <sup>3</sup>

Germany (AGS): (1) Skin (2) 15 minutes average value

Germany (DFG): (1) Skin (2) 15 minutes average value

Sweden: (1) 15 minutes average value

**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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	NucView 488 Caspase-3 Substrate, 0.2 mM in DMSO
Appearance	Solution
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling point	No information available
Flash point	No information available
Evaporate rate	No information available
Flammability	No information available
Explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Solubility	Water soluble
Partition coefficient:n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information 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** Rat - male and female - 28,300 mg/kg (OECD Test Guideline 401)  
**Inhalation LC50** Rat - male and female - 4 h - > 5.33 mg/l (OECD Test Guideline 403)  
**Dermal LD50** Rat - male and female - 40,000 mg/kg Remarks: (ECHA)  
**Other information on acute toxicity** No data available

**Skin corrosion/irritation**

Skin - Rabbit  
Result: slight irritation - 4 h  
(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit  
Result: slight irritation - 24 h  
(OECD Test Guideline 405)

**Respiratory or skin sensitization**

Maximization Test - Guinea pig  
Result: negative  
(OECD Test Guideline 406)  
Local lymph node assay (LLNA) - Mouse  
Result: negative  
(OECD Test Guideline 429)

**Germ cell mutagenicity**

Ames test  
Salmonella typhimurium  
Result: negative  
sister chromatid exchange assay  
Chinese hamster ovary cells  
Result: negative  
Mutagenicity (mammal cell test): chromosome aberration.  
Chinese hamster ovary cells  
Result: negative  
OECD Test Guideline 474  
Rat - male and female  
Result: negative

**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**

Repeated dose toxicity - Rat - male and female - Oral - 18 Months - NOAEL (No observed adverse effect level) - 3,300 mg/kg - LOAEL (Lowest observed adverse effect level) - 9,900 mg/kg

Repeated dose toxicity - Monkey - male and female - Dermal - 18 Months - NOAEL (No observed adverse effect level) - >= 8,910 mg/kg - LOAEL (Lowest observed adverse effect level)

level) - 990 mg/kg  
RTECS: PV6210000  
Exposure to large amounts can cause: redness of skin, Itching, burning, sedation, Headache, Nausea, Dizziness  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Eyes - Eye disease - Based on Human Evidence  
Eyes - Eye disease - Based on Human Evidence  
  
RTECS: PV6210000 (DMSO)

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## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish: static test LC50 - Danio rerio (zebra fish) - > 25,000 mg/l - 96 h (OECD Test Guideline 203)  
Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - 24,600 mg/l - 48 h (OECD Test Guideline 202)  
Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 17,000 mg/l - 72 h (OECD Test Guideline 201)  
Toxicity to bacteria EC50 - activated sludge - 10 - 100 mg/l - 30 min (ISO 8192)

**Persistence and degradability** No information available  
**Bioaccumulative potential** aerobic - Exposure time 28 d  
Result: 31 % - Not readily biodegradable.  
(OECD Test Guideline 301D)

**Mobility in soil** No information available  
**Results of PBT and vPvB assessment** No information available  
**Other adverse effects** No information available

**Additional information**  
Stability in water - 0.12 - 1.2 h at 30 °C pH 7  
Remarks: Hydrolyzes readily.

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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: DMSO : fire hazard, chronic health hazard

**WHMIS Hazard Class** Flammable liquids - Category 4

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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. 7

Revision date (Initials) 10/26/2022 (JD)

Reason for revision Update 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: September 29, 2023

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sulforhodamine 101 (Texas Red) Annexin V  
**Catalog Number:** 30030B  
**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 ingredients present at concentrations classified as harmful 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.

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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**

Substance: 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	Sulforhodamine 101 (Texas Red) 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

### 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) 9/29/2023 (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 26, 2022

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## 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.

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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.

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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

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### Aspiration hazard

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### Potential health effects

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**Additional information** No information available

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**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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Refer to section 2 and section 3

Prepared by: Regulatory Department  
Biotium Inc.  
Version no. 5  
Revision date (Initials) 10/26/22 (JD)  
Reason for revision Update to new document template.

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