

## Safety Data Sheet

**MITOMYCIN C****EFFECTIVE DATE: 2015-05-16**

### 1 Product and Company Identification

- 1.1 **Product Name:** Mitomycin C
- 1.2 **Product Identifier:** mitomycin
- 1.3 **Catalog Number:** 73272, 73274
- 1.4 **Product Use:** Laboratory Chemical
- 1.5 **Manufacturer/Supplier:** STEMCELL Technologies  
Suite 500-1618 Station Street  
Vancouver, British Columbia V6A 1B6 Canada
- 1.6 **In Case of Emergency Call:** 1-800-667-0322

### 2 Hazards Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity: Oral, Category 2  
Carcinogenicity, Category 2  
Serious Eye Damage/Eye Irritation, Category 2A  
Target Organ Systemic Toxicity (single exposure), Category 3  
Skin Corrosion/Irritation, Category 2

#### 2.2 Label elements

##### Pictogram



**Signal word** Danger

##### Hazard statement(s)

H300 Fatal if swallowed.  
H351 Suspected of causing cancer.  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation.  
H315 Causes skin irritation.

##### Precautionary statement(s)

P264 Wash {hands} thoroughly after handling.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P281 Use personal protective equipment as required.  
P280 Wear {protective gloves/protective clothing/eye protection/face protection}.  
P261 Avoid breathing {dust/fume/gas/mist/vapours/spray}.  
P270 Do not eat, drink or smoke when using this product.

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P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P308+313	IF exposed or concerned: Get medical attention/advice.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313	If eye irritation persists get medical advice/attention.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P332+313	If skin irritation occurs, get medical advice/attention.
P362	Take off contaminated clothing and wash it before reuse.
<b>2.3 Other hazards</b>	No data available

### 3 Composition / Information on Ingredients

#### 3.1 Substances

<b>Synonyms</b>	6-amino-8-[[aminocarbonyl]oxy]methyl]-1,1aS,2,8S,8aR,8bS-hexahydro-8a-methoxy-5-methyl-azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione; Ametycine; MitoExtra; Mitonco; Mitoplus; MMC; NSC 26980
<b>Molecular formula</b>	C <sub>15</sub> H <sub>18</sub> N <sub>4</sub> O <sub>5</sub>
<b>Molecular weight</b>	334.3

Hazardous Components (Chemical Name)	CAS #	Concentration	EC #
6-amino-8-[[aminocarbonyl]oxy]methyl]-1,1aS,2,8S,8aR,8bS-hexahydro-8a-methoxy-5-methyl-azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione	50-07-7	100%	200-008-6

### 4 First Aid Measures

#### 4.1 Description of first aid measures

##### 4.1.1 If inhaled

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

##### 4.1.2 In case of skin contact

Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

##### 4.1.3 In case of eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

##### 4.1.4 If swallowed

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Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

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

The toxicological properties of this product have not been fully evaluated.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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**5 Fire Fighting Measures****5.1 Extinguishing Media****5.1.1 Suitable Extinguishing Media**

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Use water spray to cool fire-exposed containers.

**5.1.2 Unsuitable Extinguishing Media**

A solid water stream may be inefficient.

**5.2 Special hazards arising from the substance or mixture****5.2.1 Flammable Properties and Hazards**

No data available

**5.2.2 Flash Pt**

No data available

**5.2.3 Autoignition Pt**

No data available

**5.2.4 Explosive Limits**

LEL: No data available

UEL: No data available

**5.2.5 Hazardous Combustion Products**

No data available

**5.3 Fire Fighting Instructions**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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**6 Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid raising and breathing dust, and provide adequate ventilation.

As conditions warrant, wear a NIOSH approved (or equivalent) self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental precautions**

Take steps to avoid release into the environment, if safe to do so.

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

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Contain spill and collect, as appropriate.  
 Transfer to a chemical waste container for disposal in accordance with local regulations.

### 7 Handling and Storage

#### 7.1 Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Avoid prolonged or repeated exposure.

#### 7.2 Conditions for safe storage

Keep container tightly closed.  
 Store in accordance with information listed on the product insert.

### 8 Exposure Controls/Personal Protection

#### 8.1 Exposure limits

Component	CAS #	Value	Control parameters
6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1aS,2,8S,8aR,8bS-hexahydro-8a-methoxy-5-methyl-azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione	50-07-7	No data available	No data available

#### 8.2 Engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

#### 8.3 Personal protective equipment

##### 8.3.1 Eye/face protection

Safety glasses

##### 8.3.2 Skin protection

Compatible chemical-resistant gloves  
 Lab coat

##### 8.3.3 Respiratory protection

NIOSH (US) or CEN (EU) approved respirator, as conditions warrant.

##### 8.3.4 General hygiene considerations

Do not take internally.  
 Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
 Wash thoroughly after handling.

##### 8.3.5 Environmental exposure controls

No data available

### 9 Physical and Chemical Properties

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

Appearance

A crystalline solid

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Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point/boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility	~0.5 mg/mL in PBS (pH 7.2); ~0.1 mg/mL in EtOH; ~20 mg/mL in DMF & DMSO
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

### 10 Stability and Reactivity

<b>10.1 Reactivity</b>	No data available
<b>10.2 Chemical stability</b>	Stable
<b>10.3 Possibility of hazardous reactions</b>	No data available
<b>10.4 Conditions to avoid</b>	No data available
<b>10.5 Incompatible materials</b>	Strong acids Strong bases Strong oxidizing agents
<b>10.6 Hazardous decomposition products</b>	Carbon dioxide Carbon monoxide Hydrogen chloride gas Nitrogen oxides Sodium oxides

### 11 Toxicological Information

<b>11.1 Acute toxicity</b>	
Oral:	Oral LD50 (rat): 30 mg/kg; Oral LD50 (mouse): 23 mg/kg
Inhalation:	No data available
Dermal:	No data available
Other:	No data available
<b>11.2 Skin corrosion/irritation</b>	No data available
<b>11.3 Serious eye damage/eye irritation</b>	

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No data available

**11.4 Respiratory and/or skin sensitization**

No data available

**11.5 Germ cell mutagenicity****11.6 Investigated as a mutagen****11.7 Carcinogenicity**

IARC: 2B - Group 2B: Possible human carcinogen (Mitomycin C)

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.

**11.8 Reproductive toxicity**

Investigated as a reproductive effector

**11.9 Specific target organ toxicity - single exposure**

No data available

**11.10 Specific target organ toxicity - repeated exposure**

No data available

**11.11 Aspiration hazard**

No data available

**11.12 Potential health effects**

Inhalation: Causes respiratory system irritation. Material is irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation.

Ingestion: Very toxic if swallowed.

Skin: Causes skin irritation. May be harmful by skin absorption.

Eyes: Causes eye irritation.

**11.13 Signs and symptoms of exposure**

Exposure may cause: nausea, vomiting, diarrhea, alopecia

Inhalation may cause: pulmonary fibrosis and permanent damage

Investigated as a tumorigen

Limited evidence of carcinogenic effect.

May cause adverse reproductive effects in males and/or females.

May cause harm to the unborn child.

Target Organs: Bone marrow, Kidneys, Liver

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

**11.14 RTECS #** CN0700000

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**12 Ecological Information****12.1 Toxicity**

Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

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<b>12.2 Persistence and degradability</b>	No data available
<b>12.3 Bioaccumulative potential</b>	No data available
<b>12.4 Mobility in soil</b>	No data available
<b>12.5 Other adverse effects</b>	No data available

### 13 Disposal Considerations

- 13.1 Waste disposal method**  
 Dispose in accordance with local, provincial/state, and federal regulations.
- 13.2 Contaminated packaging**  
 Dispose of as unused product.

### 14 Transport Information

<b>14.1 UN number</b>	DOT	3462
	ADR/RID	3462
	IMDG	No data available
	IATA	3462
<b>14.2 UN proper shipping name</b>	DOT	Toxins, extracted from living sources, solid, n.o.s. (Mitomycin C)
	ADR/RID	Toxins, extracted from living sources, solid, n.o.s. (Mitomycin C)
	IMDG	Not dangerous goods
	IATA	Toxins, extracted from living sources, solid, n.o.s. (Mitomycin C)
<b>14.3 Transport hazard class(es)</b>	DOT	6.1 - POISON
	ADR/RID	6.1 - POISON
	IMDG	No data available
	IATA 6.1	6.1 - POISON
<b>14.4 Packing group</b>	DOT	II
	ADR/RID	II
	IMDG	No data available
	IATA 6.1	II
<b>14.5 Environmental hazards</b>	No data available	
<b>14.6 Special precautions</b>	No data available	

### 15 Regulatory Information

#### 15.1 US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)
6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1aS,2,8S,8aR,8bS-hexahydro-8a-methoxy-5-methyl-azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione	50-07-7	Yes 500 LB	Yes 10 LB	No

#### 15.2 Other US EPA or State Lists



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Hazardous Components (Chemical Name)	CAS #	CAA HAP, ODC	CWA NPDES	TSCA	CA PROP.65
6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1aS,2,8S,8aR,8bS-hexahydro-8a-methoxy-5-methyl-azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione	50-07-7	No	No	Inventory, 5A(2), 12(b)	Yes

**15.3 EU**

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

**15.4 Canada**

WHMIS Classification:                      D1A                      Very Toxic Material Causing Immediate and Serious Toxic Effects.

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

**16 Other Information**

**16.1 Prepared by:** Quality Control, STEMCELL Technologies Inc.

**16.2 Revision:** N/A

**16.3 Notice:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to amendment by STEMCELL Technologies Inc.

**16.4 Disclaimer:** **THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**