



# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Bleomycin (Sulfate)

### Other means of identification

**Catalog Number** 100-0550 100-0551

**Document Number** 10000009276

**Synonym** Blenoxane

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory chemical

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

#### Manufacturer/Supplier

STEMCELL Technologies Canada Inc.  
Suite 500 - 1618 Station Street  
Vancouver, British Columbia V6A 1B6 Canada

### Emergency telephone number

**Emergency Telephone** 1-800-667-0322

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 2
Reproductive toxicity	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements



# SAFETY DATA SHEET

Revision Date 21-Sep-2023

Revision Number 1.1

100-0550 100-0551 - Bleomycin (Sulfate)

## Danger

### Hazard statements

May cause genetic defects

Suspected of causing cancer

Suspected of damaging fertility or the unborn child



**Appearance** Crystalline

**Physical state** Solid

**Odor** No data available

### Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

### Precautionary statements - Response

IF exposed or concerned: Get medical advice/attention

### Precautionary Statements - Storage

Store locked up

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### Other Information

Not Applicable

### Unknown acute toxicity

100 % of the mixture consists of ingredient(s) of unknown toxicity

100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

**Synonym**

Blenoxane.



# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

Chemical name	CAS No.	Weight-%
Bleomycin, sulfate (salt)	9041-93-4	100

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

### Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

### Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
----------	---------------------------

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

Note to physicians	Treat symptomatically.
--------------------	------------------------

## 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.



# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

**Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions**

Ensure adequate ventilation.

**Other Information**

Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions**

See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

**Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions**

Store in accordance with information listed on the Product Information Sheet (PIS).

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other



# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

## Appropriate engineering controls

**Engineering controls**      Showers  
Eyewash stations  
Ventilation systems.

## Individual protection measures, such as personal protective equipment

**Eye/face protection**      No special protective equipment required.

**Hand protection**      Wear suitable gloves.

**Skin and body protection**      Wear suitable protective clothing.

**Respiratory protection**      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**      Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Physical state**      Solid  
**Appearance**      Crystalline  
**Color**      No information available  
**Odor**      No data available  
**Odor threshold**      No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	Product is not flammable.	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No data available	None known



# SAFETY DATA SHEET

Revision Date 21-Sep-2023

Revision Number 1.1

## 100-0550 100-0551 - Bleomycin (Sulfate)

Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	~10 mg/mL in PBS (pH 7.2); ~13 mg/mL in DMSO; ~2 mg/mL in DMF	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No information available	

### Other Information

Softening point	No information available
Molecular weight	1415.6
Molecular formula	C <sub>55</sub> H <sub>84</sub> N <sub>17</sub> O <sub>21</sub> S <sub>3</sub> • XHSO <sub>4</sub>
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under recommended transport or storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Hydrogen sulfide. Nitrogen oxides (NO <sub>x</sub> ).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.



# SAFETY DATA SHEET

Revision Date 21-Sep-2023

Revision Number 1.1

100-0550 100-0551 - Bleomycin (Sulfate)

## Ingestion

Specific test data for the substance or mixture is not available.

## Symptoms related to the physical, chemical and toxicological characteristics

### Symptoms

No information available.

## Numerical measures of toxicity

### Acute toxicity

#### Unknown acute toxicity

100 % of the mixture consists of ingredient(s) of unknown toxicity

100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Product Information

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

### Skin corrosion/irritation

No information available.

Product Information

### Serious eye damage/eye irritation

No information available.

Product Information

### Respiratory or skin sensitization

No information available.

Product Information

### Germ cell mutagenicity

Classification based on data available for ingredients. Contains a known or suspected mutagen.

Product Information

### Carcinogenicity

Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Bleomycin, sulfate (salt) 9041-93-4	-	Group 2B	-	X

### Reproductive toxicity

Classification based on data available for ingredients.

Product Information

### STOT - single exposure

No information available.

Product Information



# SAFETY DATA SHEET

Revision Date 21-Sep-2023

Revision Number 1.1

100-0550 100-0551 - Bleomycin (Sulfate)

STOT - repeated exposure No information available.

Product Information

Aspiration hazard No information available.  
RTECS # EC5991990

## 12. ECOLOGICAL INFORMATION

Ecotoxicity The environmental impact of this product has not been fully investigated.

Product Information

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

## 14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated





# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

TSCA	Does not comply
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).



# SAFETY DATA SHEET

100-0550 100-0551 - Bleomycin (Sulfate)

Revision Date 21-Sep-2023

Revision Number 1.1

## CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

## U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Prepared By, Quality Control. STEMCELL Technologies Canada Inc.

Revision Date 21-Sep-2023

Revision Note No information available.

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

**End of Safety Data Sheet**