

MATERIAL SAFETY DATA SHEET

GENTAMICIN (50MG/ML)  
 INVITROGEN CORPORATION  
 MSDS ID: 15750

Page 1 of 8  
 Revised 9/03/02  
 Replaces 6/18/02  
 Printed 9/10/02

1. PRODUCT AND COMPANY INFORMATION

INVITROGEN CORPORATION  
 1600 FARADAY AVE.  
 CARLSBAD, CA 92008  
 760/603-7200

GIBCO PRODUCTS  
 INVITROGEN CORPORATION  
 3175 STALEY ROAD P.O. BOX 68  
 GRAND ISLAND, NY 14072  
 716/774-6700

INVITROGEN CORPORATION  
 3 FOUNTAIN DR.  
 INCHINNAN BUSINESS PARK  
 PAISLEY, PA4 9RF  
 SCOTLAND  
 44-141 814-6100

INVITROGEN CORPORATION  
 P.O. BOX 12-502  
 PENROSE  
 AUCKLAND 1135  
 NEW ZEALAND  
 64-9-579-3024

INVITROGEN CORPORATION  
 2270 INDUSTRIAL ST.  
 BURLINGTON, ONT  
 CANADA L7P 1A1  
 905/335-2255

EMERGENCY NUMBER (SPILLS, EXPOSURES): 301/431-8585 (24 HOUR)  
 800/451-8346 (24 HOUR)  
 NON-EMERGENCY INFORMATION: 800/955-6288

Product Name:  
 GENTAMICIN REAGENT SOLUTION (50 MG/ML), LIQUID

NOTE: If this product is a kit or is supplied with more than one material,  
 please refer to the MSDS for each component for hazard information.

Product Use:  
 These products are for laboratory research use only and are not intended for  
 human or animal diagnostics, therapeutic, or other clinical uses.

Synonyms:  
 Not available.

2. COMPOSITION, INFORMATION ON INGREDIENTS

The following list shows components of this product classified as hazardous  
 based on physical properties and health effects:

Component	CAS No.	Percent
GENTAMICIN SULFATE COMPLEX	1405-41-0	1 - 5

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MATERIAL SAFETY DATA SHEET

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Page 2 of 8  
Revised 9/03/02  
Replaces 6/18/02  
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**3. HAZARDS IDENTIFICATION**

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## \*\*\*\*\* EMERGENCY OVERVIEW \*\*\*\*\*

Danger!

Irritant.

Toxic if swallowed. May cause organ failure or death.

Toxic if absorbed.

Toxic by inhalation.

May cause sensitization.

Possible reproductive system hazard based on animal data.

\*\*\*\*\*

Potential Health Effects:

Eye:

Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Skin:

Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

May cause sensitization.

Upon prolonged or repeated exposure, toxic if absorbed through the skin.

Likely to cause systemic damage.

Inhalation:

Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

May cause allergic respiratory reaction.

Toxic! Can cause systemic damage (see "Target Organs"). Respiratory failure is possible at high doses.

Ingestion:

Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

Toxic if swallowed. May cause target organ failure and/or death.

Chronic:

No data on cancer.

Contains a substance(s) that is a possible reproductive system hazard based on high dose tests with laboratory animals.

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**4. FIRST AID MEASURES**

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Eye:

Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin:

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MATERIAL SAFETY DATA SHEET

---

GENTAMICIN (50MG/ML)  
INVITROGEN CORPORATION  
MSDS ID: 15750

Page 3 of 8  
Revised 9/03/02  
Replaces 6/18/02  
Printed 9/10/02

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**4. FIRST AID MEASURES (CONT.)**

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Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Inhalation:**

Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

**Ingestion:**

Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS.

**Note To Physician:**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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Flashpoint Deg C:

Not available.

Upper Flammable Limit %:

Not available.

Lower Flammable Limit %:

Not available.

Autoignition Temperature Deg C:

Not available.

**Extinguishing Media:**

Not combustible. Use extinguishing media appropriate for surrounding fire.

**Firefighting Techniques/Equipment:**

Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

**Hazardous Combustion Products:**

Includes carbon dioxide, carbon monoxide, dense smoke.

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**6. ACCIDENTAL RELEASE MEASURES**

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Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to Section 8 for personal protection equipment recommendations.

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GENTAMICIN (50MG/ML)  
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 MSDS ID: 15750

Page 4 of 8  
 Revised 9/03/02  
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6. ACCIDENTAL RELEASE MEASURES (CONT.)

## Spill Cleanup:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Ventilate the contaminated area.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Storage of some materials is regulated by federal, state, and/or local laws.

Storage Pressure:  
 Ambient

## Handling Procedures:

Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

Keep closed or covered when not in use.

## Storage Procedures:

Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed.

Suitable for most general chemical storage areas.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

## Exposure Limits:

Component	OSHA PEL (ppm)	AGCIH TWA (ppm)
GENTAMICIN SULFATE COMPLEX	Not established.	Not established.

## Engineering Controls:

Local exhaust ventilation, process enclosures, or other engineering controls are necessary when handling or using this product to avoid overexposure.

## Personal Protective Equipment:

Eye:

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MATERIAL SAFETY DATA SHEET

---

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MSDS ID: 15750

Page 5 of 8  
Revised 9/03/02  
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8. EXPOSURE CONTROLS, PERSONAL PROTECTION (CONT.)

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Safety glasses should be the minimum eye protection.  
Wear chemical goggles.

Skin:

Prevent contact with this product. Wear protective gloves, apron, face and further skin protection depending upon condition of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment thoroughly after each use. Do not wear surgical style latex gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Gloves should be used as minimum hand protection.

Respiratory:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

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9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance/physical state:	Colorless liquid.
Odor:	No odor.
Boiling Point (C):	213.8      100.99
Melting Point (C):	30.2        -1
Solubility in water:	Not established.
pH:	Not established.
Vapor Pressure:	22.2 @ 25C
Vapor Density:	0.625
Specific Gravity/Density:	1.0
Octanol/water Partition Coeff:	<0.5
Volatiles:	8.3 @ 25C
Evaporation Rate:	~0.9
Viscosity:	0.95 @ 25C

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10. STABILITY AND REACTIVITY

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Stability:

Stable under normal conditions.

Conditions to Avoid:

Strong oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide. Carbon dioxide. Sulfur containing gases. Nitrogen oxides.

Hazardous Polymerization:

Hazardous polymerization will not occur.

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MSDS ID: 15750

Page 6 of 8  
Revised 9/03/02  
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**10. STABILITY AND REACTIVITY (CONT.)**

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**11. TOXICOLOGICAL INFORMATION**

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Acute Toxicity:

Dermal/Skin:  
Not determined.

Inhalation/Respiratory:  
Not determined.

Oral/Ingestion:  
>5 GM/KG

Target Organs: Kidneys.

Carcinogenicity:

NTP:  
Not tested.

IARC:  
Not listed.

OSHA:  
Not regulated.

Other Toxicological Information  
Contains a substance(s) that is a possible reproductive system hazard  
based on high dose tests with laboratory animals.

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**12. Ecological Information**

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Ecotoxicological Information: No ecological information available.

Environmental Fate (Degradation, Transformation, and Persistence):  
Bioconcentration is not expected to occur.

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**13. DISPOSAL CONSIDERATIONS**

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Regulatory Information:  
Not applicable.

Disposal Method:  
Clean up and dispose of waste in accordance with all federal, state, and

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---

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Page 7 of 8  
Revised 9/03/02  
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13. DISPOSAL CONSIDERATIONS (CONT.)

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local environmental regulations.

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14. TRANSPORT INFORMATION

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Proper Shipping Name: Not listed in Title 49 of the U.S. Code of Federal Regulations Section 171.8 as a hazardous material. Falls outside the toxicity specifications of Hazard Class 6, 49 CFR Part 173.132 (a)(1). (Gentamicin sulfate complex)

Hazard Class:  
Subsidiary Hazards:  
ID Number:  
Packing Group:  
Label Required:

Not applicable.

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15. REGULATORY INFORMATION

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UNITED STATES:

TSCA:  
This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.

Prop 65 Listed Chemicals: PROP 65 PERCENT  
No Prop 65 Chemicals.

No 313 Chemicals

CANADA:

DSL/NDSL:  
Not determined.

COMPONENT WHMIS Classification  
GENTAMICIN SULFATE COMPLEX D2B

EUROPEAN UNION:

PRODUCT RISK PHRASES: None assigned.  
PRODUCT SAFETY PHRASES: None assigned.  
PRODUCT CLASSIFICATION:

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Page 8 of 8  
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**15. REGULATORY INFORMATION (CONT.)**

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Not classified.

Component	EINECS Number
GENTAMICIN SULFATE COMPLEX	215-778-9

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**16. OTHER INFORMATION**

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HMIS Rating 0-4:

FIRE: Not determined.  
HEALTH: Not determined.  
REACTIVITY: Not determined.

Abbreviations

N/A - Data is not applicable or not available  
SARA - Superfund and Reauthorization Act  
HMIS - Hazard Material Information System  
WHMIS - Workplace Hazard Materials Information System  
NTP - National Toxicology Program  
OSHA - Occupational Health and Safety Administration  
IARC - International Agency for Research on Cancer  
PROP 65 - California Safe Drinking Water and  
Toxic Enforcement Act of 1986  
EINECS - European Inventory of Existing Commercial  
Chemical Substances

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since Invitrogen Corporation cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.