

Material Safety Data Sheet G418 Antibiotic Solution

Section 1 - Chemical Product and Company Identification

MSDS Name:

G418 Antibiotic Solution

Catalog Numbers:

SV30068

Synonyms:

None Known.

Company Identification:

Hyclone Laboratories Inc.
925 West 1800 South
Logan, UT 84321

Company Phone Number:

(435) 792-8000

Emergency Phone Number:

(435) 792-8000

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS
108321-42-2	G418 Antibiotic	5.0	Not available.
7732-18-5	Water	Balance	231-791-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: No information found.

Warning! Individuals with allergies or hypersensitivity to antibiotics should take caution. Causes eye, skin, and respiratory tract irritation. Harmful if swallowed, inhaled, or absorbed through the skin. May cause allergic respiratory and skin reaction. Possible risk of harm to the unborn child. May cause loss of hearing. May cause kidney damage. May cause reproductive and fetal effects.

Target Organs: kidneys, central nervous system, eyes, skin, auditory system.

Potential Health Effects

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Eye:

Causes eye irritation. Exposure to solid may cause pain and redness. May cause chemical conjunctivitis.

Skin:

May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system effects. Hearing loss and deafness have been reported. May be harmful if swallowed. May cause auditory damage with possible loss of hearing. May cause neuromuscular paralysis. Causes photosensitivity with possible allergic skin reactions when exposed to light.

Inhalation:

Causes respiratory tract irritation. May cause an allergic response. May cause hearing impairment. May cause central nervous system effects.

Chronic:

Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Chronic exposure may cause kidney damage. May cause adverse reproductive effects. G418 Sulfate is an aminoglycoside antimicrobial. Aminoglycosides are associated with significant nephrotoxicity (toxic to kidney cells) and ototoxicity (having a toxic effect on the structures of the ear, especially the nerve supply).

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature:

No information found.

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Explosion Limits:

Lower: Upper:

Flash Point:

No information found.

NFPA Rating:

(estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Do not breathe dust, vapor, mist, or gas. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
G418 Antibiotic Water	None listed. None listed.	None listed. None listed.	None listed. None listed.

OSHA Vacated PELs

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

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Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Color: No information found.
Odor: odorless
pH: No information found.
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: No information found.
Specific Gravity/Density: No information found.
Molecular Formula: Solution
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials

strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, oxides of nitrogen, oxides of sulfur, carbon dioxide.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 108321-42-2 unlisted.
CAS# 7732-18-5: ZC0110000.

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LD50/LC50:

CAS# 108321-42-2:

No information found.

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

Carcinogenicity:

CAS# 108321-42-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

No information found.

Teratogenicity:

Teratogenic effects have occurred in experimental animals.

Reproductive:

May impair fertility.

Mutagenicity

No information found.

Neurotoxicity

No information found. Aminoglycoside antibiotics have the potential to cause auditory nerve damage and neuromuscular paralysis.

Other:

No information found. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:

No information available.

Environmental:

This is an antibiotic active against bacteria, yeasts, fungi, algae.

Physical:

No information available.

Other:

None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidelines for the classification determination are listed in 40CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

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Section 14 - Transport Information

US DOT

Proper Shipping Name: Not reviewed.
Hazard Class:
UN Number:
Packing Group:

Canadian TDG

No information found.

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 108321-42-2 is not listed on the TSCA Inventory. It is for research and development use only.
CAS# 7732-18-5 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

None of the components are on this list.

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

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Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State

State Right to Know

California Prop 65

CAS# 108321-42-2 No information found.

CAS# 7732-18-5 No information found.

California No Significant Risk Level

CAS# 108321-42-2 No information found.

CAS# 7732-18-5 No information found.

European/International Regulations

European Labelling in Accordance with EC Directives:

Hazard Symbols: T

Risk Phrases: R 60 May impair fertility.

R 61 May cause harm to the unborn child.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 42/43 May cause sensitization by inhalation and skin contact.

Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection)

No information found.

United Kingdom Occupational Exposure Limits

No information found.

United Kingdom Maximum Exposure Limits

No information found.

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of D2B, D2A.

Canadian Ingredient Disclosure List

No information found.

Exposure Limits

No information found.

Section 16 - Other Information

Color information has been

MSDS Creation Date: January 25, 2005

Revision Date: January 25, 2005

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This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from Fisher Scientific, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from Fisher Scientific, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.