

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Name** G418 Sulfate

**Other means of identification**

**Product Code(s)** E859

**Synonyms** No information available

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

**Recommended Use** For Further Manufacturing Use Only.

**Uses advised against** Not for Human or Animal Drug Use

**Details of the supplier of the safety data sheet**

**Company Address**

VWR International, LLC  
 Radnor Corporate Center  
 100 Matsonford Road  
 Radnor, PA 19087-8660

**Manufacturer Address**

VWR International, LLC  
 28600 Fountain Parkway  
 Solon, Ohio 44139

**Company Phone Number**

1-800-448-4442

**E-mail Address**

info@amresco-inc.com

**Emergency Telephone Number**

**Emergency Telephone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

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

Respiratory Sensitization	Category 1
Skin Sensitization	Category 1

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled



**Appearance** White

**Physical State** Powder

**Odor** No information available

**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
 In case of inadequate ventilation wear respiratory protection  
 Contaminated work clothing must not be allowed out of the workplace  
 Wear protective gloves

**Precautionary Statements - Response**

Specific treatment (see .? on this label)  
 IF ON SKIN: Wash with plenty of water and soap  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse  
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not regulated

**Other Information****3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
D-Streptamine, O-2-amino-2,7-dideoxy-D -glycero-.alpha.-D-gluco- heptopyranosyl-(1.fwdar w.4)-O-[3-deoxy-4-C-met hyl-3-(methylamino)-.beta .L-arabinopyranosyl-(1.f wdarw.6)]-2-deoxy-, sulfate (1:2) (salt)	108321-42-2	-	95-100	Not applicable

**4. FIRST AID MEASURES****First Aid Measures**

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen.

**Ingestion** Never give anything by mouth to an unconscious person. Rinse mouth.

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

**Most Important Symptoms/Effects** No information available.

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

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing media appropriate to surrounding fire conditions.

**Unsuitable Extinguishing Media** No information available.

**Specific Hazards Arising from the Chemical**

No information available.

**Hazardous Combustion Products** Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides.

**Explosion Data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal protection** Ensure adequate ventilation, especially in confined areas.

**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** Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Hygroscopic. Moisture sensitive. Light Sensitive.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic. Protect from light. Protect from moisture.

**Incompatible Products** No information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ - lpha.-D-gluco-heptopyranosyl-(1.fwd arw.4)-O-[3-deoxy-4-C-methyl-3-(m ethylamino)-.beta.-L-arabinopyranos yl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-

**Appropriate engineering controls**

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

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Safety glasses with side-shields. Avoid contact with eyes.  
**Skin and Body Protection** Wear protective gloves/clothing.  
**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical State</b>	Powder	<b>Odor</b>	No information available
<b>Appearance</b>	White	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point/freezing point</b>		
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point (High in °C)</b>	No information available	
<b>Evaporation Rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor Density</b>	No information available	
<b>Specific Gravity</b>	No information available	
<b>Water Solubility</b>	No information available	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition Temperature</b>	No information available	
<b>Decomposition Temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

**Other Information**

<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content</b>	No information available
<b>Density</b>	No information available
<b>Bulk Density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to Avoid**

Protect from light and moisture. Hygroscopic.

**Incompatible Materials**

No information available.

**Hazardous Decomposition Products**

Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides.

**11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure

**Product Information**

- Inhalation** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Eye Contact** There is no data available for this product.
- Skin Contact** Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
- Ingestion** There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ -D-gluco-heptopyranosyl-(1.fwdarw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-

Information on toxicological effects

**Symptoms** No information available.

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

- Sensitization** No information available.
- Mutagenic Effects** No information available.
- Carcinogenicity** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ -D-gluco-heptopyranosyl-(1.fwdarw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-	-

- Reproductive Toxicity** No information available.
- STOT - single exposure** No information available.
- STOT - repeated exposure** No information available.
- Chronic Toxicity** Suspected teratogen. Suspected mutagen.
- Target Organ Effects** Kidneys, Ears.
- Aspiration hazard** No information available.

Numerical measures of toxicity - Product Information

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero-.alpha.-D-gluco-heptopyranosyl-(1.fwd arw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-

### Persistence and Degradability

No information available.

### Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero-.alpha.-D-gluco-heptopyranosyl-(1.fwd arw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-

### Other Adverse Effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

### Waste Disposal Method

Dispose of material in accordance with all federal, state, and local regulations.

### Contaminated Packaging

Do not re-use empty containers.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero-.alpha.-D-gluco-heptopyranosyl-(1.fwdarw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-	-

Chemical Name	California Hazardous Waste Status
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero-.alpha.-D-gluco-heptopyranosyl-(1.fwd arw.4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-

## 14. TRANSPORT INFORMATION

### DOT

Not regulated

### IATA

Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Does not comply
<b>DSL/NDSL</b>	Does not comply
<b>EINECS/ELINCS</b>	Does not Comply
<b>ENCS</b>	Does not Comply
<b>IECSC</b>	Complies
<b>KECL</b>	Does not Comply
<b>PICCS</b>	Does not Comply
<b>AICS</b>	Does not Comply

**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 Commercial Chemical Substances/EU 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

**U.S. 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.

Component	SARA 313 - Threshold Values %
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero-.alpha.-D-gluco-heptopyranosyl-(1.fwdarw.4)- O-[3-deoxy-4-C-methyl-3-(methylamino)-.beta.-L-arabinopyranosyl-(1.fwdarw.6)] -2-deoxy-, sulfate (1:2) (salt) 108321-42-2 ( 95-100 )	-

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**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)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
D-Streptamine, O-2-amino-2,7-dideoxy-D-gl ycero-.alpha.-D-gluco-hepto pyranosyl-(1.fwdarw.4)-O-[3- deoxy-4-C-methyl-3-(methyl amino)-.beta.-L-arabinopyra nosyl-(1.fwdarw.6)]-2-deoxy- , sulfate (1:2) (salt) 108321-42-2	-	-	-	-

**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

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[3-deoxy-4-C-methyl-3-(methylamino)- $\beta$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[3-deoxy-4-C-methyl-3-(methylamino)- $\beta$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)]-2-deoxy-, sulfate (1:2) (salt) - 108321-42-2	-

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
D-Streptamine, O-2-amino-2,7-dideoxy-D-glycero- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O-[3-deoxy-4-C-methyl-3-(methylamino)- $\beta$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)]-2-deoxy-, sulfate (1:2) (salt) 108321-42-2	-	-	-

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not regulated

## 16. OTHER INFORMATION

Issuing Date 28-May-2009

Revision Date 08-Jan-2016

**Revision Note**

No information available

**Disclaimer**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

**End of Safety Data Sheet**