

Revision Date 08-Aug-2014

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier**

Product Name G418 Sulfate
Product Code 61-234-RF , 61-234-RG, 61-234-RK

Other means of identification

Synonyms Antibiotic G418
CAS No 108321-42-2
Formula $C_{20}H_{40}N_4O_{10} \cdot 2H_2SO_4$
Pure substance/mixture Substance

Recommended use of the chemical and restrictions on use

Recommended Use For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

Details of the supplier of the safety data sheet

Company Name Mediatech Inc., A Corning Subsidiary
9345 Discovery Blvd.
Manassas, VA 20109
USA
+1.703.471.5955

Contact Point MTtechserv@Corning.com, 1.800.CELLGRO
Emergency Telephone Chemtrec: +1-800-424-9300 (USA), +1-703-527-3887 (International; Call collect), (REF: CCN 56 88)

2. HAZARDS IDENTIFICATION**Classification**

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** powder**Physical state** Solid**Odor** No information available

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves

P285 - In case of inadequate ventilation wear respiratory protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P363 - Wash contaminated clothing before reuse

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common name	G418 disulfate salt
Synonyms	Antibiotic G418
Molecular weight	692.71 g/mol
CAS No	108321-42-2
Formula	C ₂₀ H ₄₀ N ₄ O ₁₀ • 2H ₂ SO ₄

Chemical Name	CAS No	Weight-%	Trade Secret
G418 disulfate salt	108321-42-2	100%	-

4. FIRST AID MEASURES**First aid measures**

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Call a physician.
Skin Contact	Wash off immediately with soap and plenty of water. Remove contaminated clothing and shoes. Call a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.**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 No information available.**Hazardous combustion products**

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

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

Use personal protective equipment as required. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Avoid breathing dust/fume/gas/mist/vapors/spray.

Environmental precautions

Collect spillage. Prevent product from entering drains.

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 creating dust. Cover powder spill with plastic sheet or tarp to minimize spreading. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains.

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 and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

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

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand Protection	Wear protective nitrile rubber gloves.
Skin and body protection	Suitable protective 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.
Recommended Filter type:	P95 (US); P1 (EU EN 143).

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	No information available
Appearance	powder	Odor threshold	No information available
Color	No information available		
Property	Values	Remarks • Method	
pH	No information available		
Melting point/freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	No information available		
Water solubility	No information available		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Oxidizing properties	No information available		
Explosive properties	No information available		
Molecular weight	692.71 g/mol		

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

None under normal use conditions

May emit toxic fumes under fire conditions

Carbon oxides, Nitrogen oxides (NOx), Oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information

No acute toxicity information is available for this product

Information on toxicological effects

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

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

Sensitization	May cause allergic respiratory reaction. May cause allergic skin reaction.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Target Organs	Ears, liver, kidneys.
Target Organ Effects	Liver disorders.
Potential health effects	
Inhalation	May be harmful if inhaled. May cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed.
Skin	May be harmful in contact with skin. May cause irritation.
Eyes	May cause eye irritation.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

There is no known ecological information for this product

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in soil

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT**

Not regulated

<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated
<u>MEX</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
G418 disulfate salt	-	-	-	-	-	-	X	-	-	-

Legend X = Listed, - = Not Listed

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	Yes
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).

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.

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

US State Regulations**California Proposition 65**

Chemical Name	California Proposition 65
G418 disulfate salt (CAS #: 108321-42-2)	Developmental

16. OTHER INFORMATION

Version 1

Revision Date

08-Aug-2014

Revision Note

Not Applicable

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither Corning Incorporated nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet