

Section 1: Identification

Product Name GRAMICIDIN USP
Commercial Name Not available.
Product Use Not available
Restrictions On Use Not available

Product Code 30-1174

Company PCCA
 9901 South Wilcrest
 Houston, TX 77099
 Phone: 1-800-331-2498
 Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Not available
CFR 1910.1200

Signal Word DANGER

Hazard Statement(s) H302 Harmful if swallowed. H312 Harmful if on skin. H332 Harmful if inhaled. H317 May cause an allergic skin reaction. H315 Causes skin irritation. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention	P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response	P305+P331+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P332+P312: If skin irritation occurs: Call a POISON CENTER or doctor/physician if you feel unwell. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P341+P311: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Storage	Not available.
Disposal	Not available

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Gramicidin D
% By Weight 100
CAS# 1405-97-6
Molecular Weight Not available.
Chemical Formula Not available.
Synonym(s) Gramicidin D

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Gramicidin D	1393-88-0	100	Not available.	Not available.

Section 4: First-Aid Measures

Inhalation Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth- to- mouth) and call a physician immediately.

Skin Contact Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation or rash develops.

Eye Contact Flush eyes for 15 minutes with plenty of water. Get medical attention immediately.

Ingestion Do not induce vomiting. Call a physician or poison control center. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

Symptoms/Effects

Acute Not determined

Delayed Not available

Immediate Medical Attention

Not available.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water, carbon dioxide, dry chemical, foam, or other alternatives.

Unsuitable Extinguishing Media

Do not use water jet.

Products of Combustion

Carbon monoxide, carbon dioxide, and nitrogen oxides.

Firefighters Special Equipment and Precautions

Not available.

Section 6: Accidental Release Measures

Water Spill: Do not empty into drains. **Land Spill:** Vacuum material with appropriate dust collection in place. Be aware of potential for dust explosion when using electrical equipment. If a vacuum is not available, lightly mist material and remove by sweeping or wet wiping. Wear appropriate equipment including eye protection to avoid exposure. **Release Notes:** If the spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. In the USA, contact the USA Coast Guard National Response Center toll free 800-424-8802. **Methods and Materials for Cleaning Up:** Contain dry material by lightly misting with water, followed by sweeping carefully so as not to generate dust, or vacuuming. Ensure the vacuum is fitted with an appropriate dust filter so dust is not re-introduced into the air. Be aware of the potential for dust explosion when using electrical equipment.

Section 7: Handling and Storage

Handling: Keep away from heat. Keep away from sources of ignition. Store below 25°C (77°F). Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. **Storage:** Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Store securely, inaccessible for unauthorized persons. Keep dry and away from sources of ignition. Store below -20°C (-4°F) in original, unopened package or container.

Section 8: Exposure Controls/Personal Protection**Exposure Limits**

TWA for the substance: 7 µg/m³

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. For laboratory operations, use a local exhaust ventilation or ventilated chamber for high-energy operations such as shredding. Choose and use enclosed equipment and personal protective equipment based on the risk assessment. During transportation, cover all containers for storing solutions and suspensions. In case of dust generation, exhaust ventilation or ensuring general ventilation of the room



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Personal Protection

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Section 9: Physical and Chemical Properties

Appearance	White to almost white powder (Solid crystalline powder.)		
Odor	Odorless.		
Odor Threshold	Not relevant		
Melting Point	229-230°C	pH	No applicable information found
Freezing Point	No applicable information fo	Vapor Pressure	Not applicable.
Boiling Point/Range	No applicable information fo	Vapor Density	Not available.
Decomposition temperature	No applicable information fo	Viscosity	Not available.
Partition Coefficient: n-octanol/water	No applicable information fo	Evaporation Rate	No applicable information found
Flash Point	Not available.	Autoignition temperature	No applicable information found
Flammability	No applicable information fo	Flammability or Explosive Limits:	
		Lower	No applicable information found
		Upper	No applicable information found
Solubility(ies)	6 mg/L room temperature		
Other	Not available.		

Section 10: Stability and Reactivity

Reactivity	No applicable information found
Chemical Stability	The product is stable at normal temperature and pressures
Hazardous Polymerization	Corrosivity: Non-corrosive in presence of glass. Hazardous polymerization will not occur.
Conditions to Avoid	Not available.
Incompatible Materials	Not available.
Hazardous Decomposition Products	Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide

Section 11: Toxicological Information

RTECS MD8440000

Acute Toxicity

Acute oral LD50: >3000 mg/kg (mouse). Its intravenous LD50 is as low as 1.5 mg/kg and parenteral LD50 is 0.017 mg/kg, therefore, it is classified as Acute Tox. 4 for all exposition routes.

Skin Corrosion/Irritation

Maybe an irritant. Skin Irrit. 2

Serious Eye Damage/Irritation

Maybe an irritant. Eye Irrit. 2

Respiratory or Skin Sensitization

Allergic rashes possible. Skin Sens. 1 and Resp. Sens. 1

Germ Cell Mutagenicity

Not available

Carcinogenicity

Not determined

Reproductive Toxicity

Not determined

Routes of Entry

Ingestion.

Symptoms Related to Exposure

Not available

Potential Health Effects

May cause skin, eye irritating

Target Organ(s)

This product may cause a blood cell hemolysis and meningitis from systemic overexposure to gramicidin

Section 12: Ecological Information**Ecotoxicity**

Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise. Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Persistence and Degradability

No applicable information found

Bioaccumulative Potential

No applicable information found

Mobility in Soil

No applicable information found

Other Adverse Effects

The substance is possibly harmful for the environment, due to its antibiotic properties

Section 13: Disposal Considerations**Waste Disposal**

Recycle to process, if possible. Consult your local or regional authorities.

Disposal of Container

Dispose of any cleanup materials and waste residue according to applicable laws and regulations

Other Considerations

Not available

Section 14: Transport Information**DOT Classification**

Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information**Regulations**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are: NONE Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE; Pennsylvania Right-To-Know, Hazardous substance List, Hazardous Substances and Special hazardous Substances on the list must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Massachusetts Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: NONE

Other

WHMIS Not controlled under WHMIS (Canada). (Canada); DSCL (EEC) This product is not classified according to the EU regulations.; Gloves.; Lab coat.; Dust respirator. Be sure to use an approved/certified respirator or equivalent.; Safety glasses.



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Section 16: Other Information

Not available.