

SECTION 1: Product and Company Identification

Identification of the substance or mixture

Catalog #: 10263, 10263-1
Product Name: Guanidine Hydrochloride
CAS-No.: 593-84-0

Company Identification

Cepharm Life Sciences Inc.
 11830 W Market Place, Suite K
 Fulton, MD 20759
 USA
 Toll Free: 1-800-257-1565
 Phone: 410-636-4954

24-hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Toll Free: 1-800-424-9300/ +1 703-527-3887 CCN 1010970

For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
 Acute toxicity, Inhalation (Category 4), H332
 Acute toxicity, Dermal (Category 4), H312
 Skin corrosion (Category 1B), H314
 Serious eye damage (Category 1), H318
 Acute aquatic toxicity (Category 3), H402
 Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label Elements, including Precautionary Statements

Pictogram
 Signal word



Danger

Hazard statement(s)
 H302 + H312 + H332
 H314
 H412

Harmful if swallowed, in contact with skin or if inhaled.
 Causes severe skin burns and eye damage.
 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)
 P260
 P264
 P270
 P271
 P273
 P280
 P301 + P312 + P330
 P301 + P330 + P331

Do not breathe dust or mist.
 Wash skin thoroughly after handling.
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P363

Wash contaminated clothing before reuse.

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

SECTION 3: Composition / Information on Ingredients

Substances

Synonyms: Guanidinium rhodanide
Guanidinium thiocyanate

Formula: CH₅N₃ · CHNS
Molecular weight: 118.16 g/mol
CAS-No.: 593-84-0

Hazardous Components

Component	Classification	Concentration
Guanidinium thiocyanate	Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3; H302 + H312 + H332, H314, H412	90 - 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable extinguishing media

Dry powder

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling & Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage. Do not store near acids.

Light sensitive. Hygroscopic. Store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and Chemical Properties**Information on basic physical and chemical properties**

a) Appearance	Form: solid Color: white
b) Odor	Odorless
c) Odor Threshold	No data available
d) pH	4.8 - 6.0 at 1,420 g/l at 20 °C (68 °F)
e) Melting point/freezing point	Melting point/range: 117 °C (243 °F)
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapor pressure	no data available
l) Vapor density	no data available
m) Relative density	1.29 g/cm ³ at 20 °C (68 °F)
n) Water solubility	1,420 g/l at 20 °C (68 °F)
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	No data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

Other safety information

Bulk density	ca.630 kg/m ³
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SECTION 10: Stability & Reactivity**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Contact with acids liberates very toxic gas.

Incompatible materials

Strong acids, Strong oxidizing agents, Cyanides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological Information**Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - 593 mg/kg

Inhalation: No data available

Dermal: No data available

LD50 Intraperitoneal - Mouse - 300 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

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

SECTION 12: Ecological Information

Toxicity

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia (water flea) - 42.4 mg/l - 48 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

Harmful to aquatic life with long lasting effects.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
No data available

SECTION 13: Disposal Considerations

Waste treatment methods**Product**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product

SECTION 14: Transport Information

DOT (US)

UN number: 1759 Class: 8 Packing group: III
Proper shipping name: Corrosive solids, n.o.s. (Guanidinium thiocyanate)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG

UN number: 1759 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: CORROSIVE SOLID, N.O.S. (Guanidinium thiocyanate)

IATA

UN number: 1759 Class: 8 Packing group: III
Proper shipping name: Corrosive solid, n.o.s. (Guanidinium thiocyanate)

SECTION 15: Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Guanidinium thiocyanate	CAS-No. 593-84-0	Revision Date
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New Jersey Right to Know Components

Guanidinium thiocyanate	CAS-No. 593-84-0	Revision Date
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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Dam.	Serious eye damage
H302	Harmful if swallowed.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H312	Harmful in contact with skin.

HMIS Rating

Health hazard:	3
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	3
Fire Hazard:	0
Reactivity Hazard:	0

Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not represent any guarantee of the properties of the product. Cepham Life Sciences Incorporated and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.