

**SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----**

Product Name	Guanidine thiocyanate
Product Code(s)	GB0244/GDR0244/GDR0244-MBG
Recommended Use	For Laboratory Research Use Only Not for Human or Animal Drug Use

**SECTION 2. ----- HAZARDS IDENTIFICATION -----**

**Classification of the substance or mixture**

**GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)**

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	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331	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.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
 P362 + P364 Take off contaminated clothing and wash it 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 -----**

Chemical Name	EC No.	CAS-No	Weight %
Guanidinium thiocyanate	209-812-1	593-84-0	95-100

**SECTION 4. ----- 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.

**SECTION 5. ----- FIRE FIGHTING MEASURES -----**

**Suitable extinguishing media**

Dry powder

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**

**Explosion data - sensitivity to mechanical impact**

No data available

**Explosion data - sensitivity to static discharge**

No data available

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

**Personal precautions**

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

**Environmental precautions**

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

**methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

**SECTION 7. ----- HANDLING AND STORAGE-----**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

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.

**SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

**Personal protective equipment**

**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).

**Hand 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.

**Eye 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 and 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.

**Hygiene measures**

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

**Specific engineering controls**

Use mechanical exhaust or laboratory fumehood to avoid exposure.

**SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----**

**Appearance**

Form	solid
Colour	white

**Safety data**

pH	4.8 - 6.0 at 1,420 g/l at 20 °C (68 °F)
Melting point/freezing point	Melting point/range: 117 °C (243 °F)

Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	1.29 g/cm <sup>3</sup> at 20 °C (68 °F)
Water solubility	1,420 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	odourless
Odour Threshold	No data available
Evaporation rate	No data available

#### SECTION 10. -----STABILITY AND REACTIVITY -----

##### **Chemical stability**

Stable under recommended storage conditions.

##### **Possibility of hazardous reactions**

No data available

##### **Conditions to avoid**

Contact with acids liberates very toxic gas.

##### **Materials to avoid**

Strong acids, Strong oxidizing agents, Cyanides

##### **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides Other decomposition products - No data available

#### SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

##### **Acute toxicity**

LD50 Oral - Rat - female - 593 mg/kg (OECD Test Guideline 401)

No data available

##### **Skin corrosion/irritation**

Skin - Rabbit

Result: Corrosive - 4 h (OECD Test Guideline 404)

##### **Serious eye damage/eye irritation**

No data available

##### **Respiratory or skin sensitisation**

No data available

##### **Germ cell mutagenicity**

#### **Carcinogenicity**

No data available

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

#### **Reproductive toxicity**

No data available

No data available

#### **Specific target organ toxicity - single exposure**

No data available

Acute oral toxicity - Possible damages: Nausea, Vomiting

#### **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.

After absorption of large quantities: Systemic effects:

ataxia (impaired locomotor coordination), Convulsions, collapse, Coma Cannot be excluded: impaired function of:

Thyroid

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 12. ----- ECOLOGICAL INFORMATION -----**

#### **Toxicity**

Toxicity to fish LC50 - *Poecilia reticulata* (guppy) - 89.1 mg/l - 96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - 42.4 mg/l - 48 h  
other aquatic (OECD Test Guideline 202)  
invertebrates

#### **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

**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):  
Marine pollutant: No  
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)  
Marine pollutant: No

**IATA**

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

**SECTION 15. ----- REGULATORY INFORMATION -----**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**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 +	Harmful if swallowed, in contact with skin or if inhaled.
H332	
H312	Harmful in contact with skin.

Further information: no limited for paper copy, just for internal uses.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**Issuing Date:** 12-Sept-2019

**End of SDS**