

## Safety Data Sheet

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### Identification of the substance or mixture

**Product code** C5031  
**Product name** Lysis Solution

#### Company/undertaking identification

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**24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC** Within the USA + Canada: 1-800-424-9300 and +1 703-527-3887  
Outside the USA + Canada: +1 703-741-5970

**Country Specific Emergency Number (if available):**

**For research use only. Not for use in diagnostic procedures**

### SECTION 2: Hazards identification

#### GHS - Classification

**Signal Word**  
WARNING

**Hazard pictograms**



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### Health hazards

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

### Physical hazards

Not classified

### Environmental hazards

Chronic aquatic hazard	Category 3
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### Hazard Statements

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H412 - Harmful to aquatic life with long lasting effects

### Precautionary Statements

#### Prevention

P264 - Wash hands thoroughly after handling  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P270 - Do not eat, drink or smoke when using this product  
P273 - Avoid release to the environment

#### Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P330 - Rinse mouth  
P332 + P313 - If skin irritation occurs: Get medical advice/attention

#### Storage

Not Applicable

#### Disposal

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

### Other hazards

Contains a known or suspected endocrine disruptor

### HMIS

Health	2
Flammability	0
Reactivity	0

## SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Guanidine hydrochloride 50-01-1 ( 40 - 70 )	50-01-1	-	-	40 - 70
Triton X-100 9002-93-1 ( 3-24.9 )	9002-93-1	-	-	3-24.9

Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wastes containing this product. We recommend handling all chemicals with caution.

## SECTION 4: First aid measures

### Description of first aid measures

<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
<b>Notes to Physician</b>	Treat symptomatically.

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

H302 - Harmful if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation H412 - Harmful to aquatic life with long lasting effects

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

None.

## SECTION 5: Firefighting measures

### Extinguishing media

**Suitable extinguishing media**  
**Unsuitable extinguishing media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.  
No information available.

### Special hazards arising from the substance or mixture

Not known.

### Advice for fire-fighters

Wear self-contained breathing apparatus and protective suit.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation  
Avoid contact with skin, eyes or clothing  
Use personal protection equipment  
See Section 8 for more detail

### Environmental precautions

Avoid discharge into drains and waterways whenever possible. Prevent product from entering drains. Do not allow material to contaminate ground water system.

### Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### Reference to other sections

See section 8 for more information.

## SECTION 7: Handling and storage

### Precautions for safe handling

Always wear recommended Personal Protective Equipment. See Section 8 for more detail. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

### Specific end use(s)

For research use only. Not for use in diagnostic procedures.

## SECTION 8: Exposure controls/personal protection

### Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Guanidine hydrochloride	None	None	None	None
Triton X-100	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Guanidine hydrochloride	None	None	None
Triton X-100	None	None	None

**Engineering measures**      Ensure adequate ventilation, especially in confined areas.

### Exposure controls

#### Personal Protective Equipment

**Respiratory protection**      In case of insufficient ventilation wear respirators and components tested and

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approved under appropriate government standards.

**Hand protection**

Glove material: Nitrile rubber. with thickness (mm) :5. Break through time (hours) :1.  
Recommended glove type has not been tested for use with product. Information is based on professional Knowledge.

**Eye protection**

Tight sealing safety goggles.

**Skin and Body Protection**

Wear laboratory coat for body protection.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

Avoid discharge into drains and waterways whenever possible. Prevent product from entering drains. Do not allow material to contaminate ground water system.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

<b>Appearance</b>	liquid	
<b>Odor</b>	odorless	
<b>Odor Threshold</b>	Mixture has not been tested	
<b>pH</b>	Mixture has not been tested	
<b>Melting point / melting range</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Boiling point / boiling range</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Flash point</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Autoignition Temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Decomposition temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Evaporation rate</b>	No data	
<b>Flammability (solid, gas)</b>	Not Applicable	
<b>Upper explosion limit</b>	Mixture has not been tested	
<b>Lower explosion limit</b>	Mixture has not been tested	
<b>Vapor Pressure</b>	Mixture has not been tested	
<b>Relative density</b>	Mixture has not been tested	
<b>Specific gravity</b>	No data	
<b>Solubility</b>	Soluble in water	
<b>Partition coefficient: n-octanol/water</b>	No data	
<b>Viscosity</b>	Mixture has not been tested	
<b>Explosive properties</b>	Mixture has not been tested	
<b>Oxidizing properties</b>	Mixture has not been tested	
<b>Other information</b>		
No data.		

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wastes containing this product.
<b>Incompatible materials</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products</b>	No known hazardous decomposition products.

## SECTION 11: Toxicological information

### Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Guanidine hydrochloride	= 475 mg/kg (Rat)	Skin (rabbit) 500 mg/24h SEVERE	No data available
Triton X-100	= 1800 mg/kg (Rat) = 4190 mg/kg (Rat) = 1700 mg/kg (Rat)	No data available	No data available

### Principal Routes of Exposure

<b>Skin corrosion/irritation</b>	Skin irritation Irritating to eyes
<b>Serious eye damage/irritation</b>	Conclusive but not sufficient for classification
<b>Respiratory or skin sensitization</b>	Conclusive but not sufficient for classification
<b>Specific target organ toxicity (STOT) – single exposure</b>	Conclusive but not sufficient for classification
<b>Specific target organ toxicity (STOT) – repeated exposure</b>	Conclusive but not sufficient for classification
<b>Carcinogenicity</b>	Conclusive but not sufficient for classification
<b>Germ cell mutagenicity</b>	Conclusive but not sufficient for classification
<b>Reproductive toxicity</b>	Conclusive but not sufficient for classification
<b>Aspiration hazard</b>	Conclusive but not sufficient for classification

## SECTION 12: Ecological information

### Toxicity

Hazardous to the Aquatic Environment.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
<b>Guanidine hydrochloride</b>	No data available	No data available	No data available	No data available	logPow<=-1.7
<b>Triton X-100</b>	EC50: 0.21 mg/L (96hr)	No data available	No data available	No data available	No data available

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other adverse effects** Contains a known or suspected endocrine disruptor.

## SECTION 13: Disposal considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations. Do not empty into drains. Do not dispose of waste into sewer.

## SECTION 14: Transport information

### IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

<b>UN number</b>	Not Applicable
<b>UN proper shipping name</b>	Not Applicable
<b>Transport hazard class(es)</b>	Not Applicable
<b>Packing group</b>	Not Applicable

### Environmental hazards

Not Applicable

### Special precautions for user

Not Applicable

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not Applicable.

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## SECTION 15: Regulatory information

Component	US TSCA
Guanidine hydrochloride 50-01-1 ( 40 - 70 )	Listed
Triton X-100 9002-93-1 ( 3-24.9 )	Listed

**US Federal Regulations****SARA 313**

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**WHMIS Hazard Class**

D2B - Toxic materials



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

**National Regulations - Brazil**

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Guanidine hydrochloride	50-01-1	Not Listed	Not Listed
Triton X-100	9002-93-1	Not Listed	Not Listed

## SECTION 16: Other information

**Reason for revision** SDS sections updated.  
**Revision number** 1  
**Revision date** 29-Mar-2019

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**References**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>

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- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

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**End of Safety Data Sheet**