

Trade Name: Lysis Solution DC

Company / Supplier: Invitek Molecular GmbH, Robert-Rössle-Straße 10, D - 13125 Berlin

Telephone: +49-30-94 89-3796, Date of issue: 08.04.2019 Replaces Data Sheet of: 28.08.2018

SECTION 3: Composition/information on ingredients**3.1 Substances**

n.ap.

3.2 Mixtures**Chemical Characterisation:**

Aqueous solution

Dangerous Ingredients:

Material	Index - No.	EC - No.	REACH - No.	m% - range
CAS - No. Hazard Code(s) / H - phrases				
Guanidiniumthiocyanat 593-84-0 Acute Tox. 4; H302 / Acute Tox. 4; H312 / Acute Tox. 4; H332 / Aquatic Chronic 3; H412 / EUH032	n.ap.	209-812-1	n.av.	45 - 65%
Siliciumdioxid, chemisch gewonnen 112945-52-5 Skin Irrit. 2; H315 / Eye Irrit. 2; H319 / STOT SE 3; H335	n.av.	n.av.	n.av.	1 - 5%
Natrium-N-lauroylsarkosinat 137-16-6 Skin Irrit. 2; H315 / Eye Dam. 1; H318	n.av.	205-281-5	n.av.	1 - 3%

Text of H - phrases: see section 16

m% - range: $x - y \triangleq x \geq - < y$ **SECTION 4: First aid measures****4.1 Description of first aid measures****4.1.1 Inhalation:**

Move to fresh air in case of accidental inhalation of vapours or decomposition products.
If symptoms persist, call a physician.

4.1.2 Skin Contact:

Wash off immediately with plenty of water.
In the case of skin irritation or allergic reactions see a physician.

4.1.3 Eye Contact:

Rinse immediately with plenty of water, also under the eyelids.
Consult a physician.

4.1.4 Ingestion:

Clean mouth with water and afterwards drink plenty of water.
Do not induce vomiting.
Consult a physician for severe cases.

4.2 Most important symptoms and effects, both acute and delayed

n.av.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures**5.1 Extinguishing media****5.1.1 Suitable Extinguishing Media:**Use dry chemical, CO₂, water spray or "alcohol" foam.**5.1.2 Extinguishing Media to Avoid:**

None.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released: Carbon oxides, Hydrogen chloride gas(HCL).

5.3 Advice for firefighters**5.3.1 Special Protective Equipment:**

Wear positive pressure self-contained breathing apparatus.
Wear full protective clothing.

5.3.2 Additional Information:

The product itself does not burn.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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SECTION 6: Accidental release measures

- 6.1 **Personal precautions, protective equipment and emergency procedures**
See chapter 8.2.2
- 6.2 **Environmental precautions**
Do not contaminate water.
Local authorities should be advised if significant spillages cannot be contained.
- 6.3 **Methods and material for containment and cleaning up**
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- 6.4 **Reference to other sections**
None.

SECTION 7: Handling and storage

- 7.1 **Precautions for safe handling**
- 7.1.1 **Precautions for Safe Handling:**
When using, do not eat, drink or smoke.
Avoid contact with skin and eyes.
Wash hands before breaks and at the end of workday.
Take off all contaminated clothing immediately.
- 7.1.2 **Precautions in Case of Fire and Explosion:**
Normal measures for preventive fire protection.
- 7.2 **Conditions for safe storage, including any incompatibilities**
- 7.2.1 **Storage Instructions:**
Keep at temperature not exceeding 30°C.
- 7.2.2 **Store away from:**
Incompatible with oxidizing agents.
- 7.2.3 **Further Information on Storage Conditions:**
None.
- 7.3 **Specific end use(s)**
n.av.

SECTION 8: Exposure controls/personal protection

- 8.1 **Control parameters**

Material	Limit Value
Siliciumdioxid, chemisch gewonnen	TLV dust: 10 mg/m ³ (respirable fraction); 3 mg/m ³ (alveole passing fraction)
- 8.2 **Exposure controls**
- 8.2.1 **Appropriate engineering controls**
Keep container tightly closed in a dry and well-ventilated place.
Ensure adequate ventilation, especially in confined areas.
Handle in accordance with good industrial hygiene and safety practice.
- 8.2.2 **Individual protection measures**
- 8.2.2a **Respiratory Protection:** In case of insufficient ventilation wear suitable respiratory equipment.
- 8.2.2b **Hand Protection:** solvent-resistant gloves (butyl-rubber Break through time> 6 h)
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- 8.2.2c **Eye Protection:** safety glasses with side-shields conforming to EN166.
- 8.2.2d **Skin Protection:** protective suit
- 8.2.2e **Further Information:** Observe wearing time limits:
- 8.2.3 **Environmental exposure controls:**
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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

9.1.1	Form: liquid	Colour: colourless	Odour: characteristic
			Odour threshold: n.av.
9.1.2	pH-value, undiluted:	n.av.	
	pH-value, 1% aqueous solution:	n.av.	
9.1.3	Boiling point / Boiling - range (°C):	n.av., Melting point / Melting range (°C): n.av.	
9.1.4	Flash point (°C):	n.ap., closed cup	
9.1.5	Flammability:	n.ap.	
9.1.6	Ignition temperature (°C):	n.ap.	
9.1.7	Autoflammability:	n.av.	
9.1.8	Oxidising properties:	None.	
9.1.9	Explosion hazard:	None.	
9.1.10	Explosion limits (Vol.%) lower:	None., upper: None.	
9.1.11	Vapour pressure:	n.av.	
	Vapour density (Air = 1):	n.ap.	
9.1.12	Density (g/ml):	n.av.	
9.1.13	Solubility (in Water):	miscible	Soluble in:
9.1.14	Partition coefficient, n-Octanol / Water:	n.av.	
9.1.15	Viscosity:	n.av.	
9.1.16	Solvent content (m %):	n.ap.	
9.1.17	Thermal decomposition (°C):	n.av.	
9.1.18	Evaporation rate:	n.av.	
9.2	Other information		
	n.av.		

SECTION 10: Stability and reactivity

10.1	Reactivity
	None.
10.2	Chemical stability
	Stable under normal conditions.
10.3	Possibility of hazardous reactions
	No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid
	Keep away from heat.
10.5	Incompatible materials
	Incompatible with oxidizing agents.
10.6	Hazardous decomposition products
	No decomposition if used as directed.
	To avoid thermal decomposition, do not overheat.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute Health Effects:

Inhalation:	ATE _{MIX} : 3,1 mg/L
Ingestion:	ATE _{MIX} : 1057 mg/kg
Skin Contact:	ATE _{MIX} : 2325 mg/kg
Skin corrosion / irritation:	Causes skin irritation.
Serious eye damage / irritation:	Causes serious eye irritation.
Respiratory or skin sensitisation:	n.av.
Germ cell mutagenicity:	n.av.
Carcinogenicity:	n.av.
Reproductive toxicity:	n.av.
STOT-single exposure:	n.av.
STOT-repeated exposure:	n.av.
Aspiration hazard:	n.av.

11.1.1 – Practical Experience

11.1.1.1 n.av.

11.1.1.2 Practical Experience

Observations relevant for classification:

None.

Further Observations:

None.

Classification of the preparation has been done by calculation in accordance with EEC directives.

SECTION 12: Ecological information**12.1 Toxicity**Harmful to aquatic organisms. We have no quantitative data concerning the ecological effects of this product. Guanidiniumthiocyanat: LC₅₀ (96 h/Poecilia reticulata) 89,1 mg/l ; EC₅₀ (48 h /daphnia) 42,4 mg/l**12.2 Persistence and degradability**

The product is highly volatile and can be largely eliminated from the water by stripping.

12.3 Bioaccumulative potential

May cause long-term adverse effects in the aquatic environment.

12.4 Mobility in soil

n.av.

12.5 Results of PBT and vPvB assessment

This mixture contains no substances which are assessed to be PBT or vPvB.

12.6 Other adverse effects

12.6.1	COD-Value, mg/g:	n.av.
12.6.2	BOD5-Value, mg/g:	n.av.
12.6.3	AOX-Remarks:	n.av.
12.6.4	Significant Components:	Guanidinium thiocyanate
12.6.5	Other adverse effects:	None.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

13.1.1 Recommendation: R 2 / D 10

Waste - Code - No.: 07 07 99

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

In addition comply with the regional authorities.

13.2 Contaminated Packaging

13.2.1 Recommendation: Wash with suitable cleaner.

Otherwise as described under Residues.

Offer rinsed packaging material to local recycling facilities.

13.2.2 Safe Handling:

As described under Residues.

Handle in accordance with good industrial hygiene and safety practice.

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SECTION 14: Transport information

	ADR Not classified as dangerous in the meaning of transport regulations.	IMDG Not classified as dangerous in the meaning of transport regulations.	IATA Not classified as dangerous in the meaning of transport regulations.
14.1	UN number		
14.2	UN proper shipping name		
14.3	Transport hazard class(es)		
14.4	Packing group		
14.5	Environmental hazards		
14.6	Special precautions for user		
	Transport category: Classification Code: Hazard - No.: LQ:		Packing Instructions (Passenger) Packing Instructions (Cargo)
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		

SECTION 15: Regulatory information

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
n.av.
- 15.2 **Chemical safety assessment :**
n.ap.

SECTION 16: Other information

Text of H phrases mentioned in Section 3

- EUH032: Contact with acids liberates very toxic gas.
- H302: Harmful if swallowed.
- H312: Harmful in contact with skin.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H412: Harmful to aquatic life with long lasting effects.

This datasheet has been compiled in accordance with EU regulation 2015/830.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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