

miRCURY™ RNA Isolation Kit (Lysis Solution)

SAFETY DATA SHEET

Safety Data Sheet according to (EC) No 1907/2006.

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation:

miRCURY™ RNA Isolation (Lysis Additive)

Use of the substance/preparation:

Laboratory reagent. For research use only. Not for use in in-vitro diagnostics.

Company/undertaking identification:

Exiqon A/S

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2. Hazards identification

Harmful solution that is dangerous for the environment. Contact with acids liberates very toxic gas.

Classification: Xn;R20/21/22 R32 R52/53

3. Composition/Information on ingredients

% w/w	Name	CAS-no.	EINECS/ELINCS	Classification	Note
< 50	Guanidinium thiocyanate	593-84-0	209-812-1	Xn;R20/21/22 R32 R52/53	-

Wording of R-phrases - see section 15.

4. First aid measures

Inhalation:

Move the affected person to fresh air. Keep at rest. If needed: Get medical attention.

Skin contact:

Remove contaminated clothing and wash with soap and water. In case of discomfort or skin irritation: Seek medical advice.

Eye contact:

Rinse with water or physiological salt water, holding eye lids open; remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion:

Rinse mouth and drink plenty of water. Keep at rest under surveillance. If needed: Seek medical advice.

Information:

Show this Safety Data Sheet to a physician or emergency ward.

5. Fire-fighting measures

Precautions against fire:

Not combustible.

Suitable extinguishing media:

Not relevant.

Hazardous combustion or decomposition products:

Not relevant.

Protective equipment:

Not relevant.

6. Accidental release measures

Personal precautions:

Use personal protective equipment - see section 8.

Environmental precautions:

Do not empty into drains - see section 12. Inform appropriate authorities in accordance with local regulations.

Methods for cleaning up:

Absorb spilled liquid with paper napkins or similar and handle as chemical waste. Flush area of spill with plenty of water. Further handling of spillage - see section 13.

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7. Handling and storage

Safe storage:

Store in tightly closed container in a cool and well-ventilated area.

Specific use(s):

See section 1.

8. Exposure controls/personal protection

Engineering measures (prevention of worker exposure):

Avoid contact with skin, eyes and clothing. Good industrial hygiene practice is necessary. Wash hands and contaminated areas with plenty of water and soap after work. There shall be access to plenty of water.

The employer shall assess the working conditions and, if there is any risk to the safety or health and any effects on the pregnancy or breastfeeding of workers, take the necessary measures to adjust the working conditions (Directive 92/85/EEC).

Exposure limits: -**Personal protective equipment:****Respiratory protection:**

None at normal use.

Skin protection:

Wear protective gloves of nitrile rubber if there is a risk of splashes or direct contact. It has not been possible to find data on breakthrough time for the components; therefore it is recommended that the gloves are changed when spilled on. When spilled on, remove the gloves and wash hands thoroughly with plenty of water and soap.

Eye protection:

Use safety glasses if there is a risk of splashes.

Environmental exposure controls:

-

9. Physical and chemical properties

Appearance:	Liquid
pH:	Neutral
Boiling point / boiling range (°C):	~ 100
Melting point (°C):	~ 0
Vapour pressure (hPa at 20°C):	2.3
Density (g/ml):	~ 1
Solubility in water:	Miscible

10. Stability and reactivity

Stability:

Stabile under normal conditions.

Conditions to avoid:

Avoid strong heat.

Materials to avoid:

Reacts strongly with oxidants. Guanidinium thiocyanate may react with acids and form very toxic hydrogen cyanide.

Hazardous decomposition products:

When heated to high temperatures (decomposition) it emits toxic fumes: Hydrogen cyanide and oxides of sulphur- and nitrogen.

11. Toxicological information

Routes of exposure:

Skin and gastrointestinal tract.

Acute toxicity:**Inhalation:**

Inhalation of aerosols or mist of the solution may cause symptoms as described under "Ingestion".

Skin:

Guanidinium thiocyanate is absorbed through the skin and may, upon extensive contact, cause symptoms as described under "Ingestion".

Eyes:

May cause irritation.

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11. Toxicological information (continued)

Ingestion:

May cause excretion from nose, dizziness, cramps, vomiting, disturbances of the nerve system and a decrease in blood pressure.

Long term toxicity:

Not described in literature, but ingestion of thiocyanates in general may cause dermatitis, rash and enlargement of the thyroid gland.

12. Ecological information

Ecotoxicity:

No data has been found for Guanidinium thiocyanate, but according to Annex I to directive 67/548/EEC (The List of dangerous substances), it is harmful to aquatic organisms, corresponding to $EC_{50} = 10 - 100$ mg/l.

Mobility:

The product is miscible with water. Mobility in the aquatic systems is expected.

Persistence and degradability:

No data has been found regarding degradation of guanidinium thiocyanate, and therefore it must be considered not readily biodegradable.

Bioaccumulative potential:

-

Other adverse effects:

-

13. Disposal considerations

Disposal should be according to local, state or national legislation. Dispose through authority facilities or pass to a chemical disposal company.

EWC-code: 16 05 08

14. Transport information

Not dangerous goods (ADR/RID).

15. Regulatory information

EC-no.: -

Content: Guanidinium thiocyanate

Risk- and Safety-phrases:

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R 32: Contact with acids liberates very toxic gas.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S 61: Avoid release to the environment. Refer to special instructions/safety data sheets.

Danger symbol:



Harmful

Restriction on application: -

16. Other information

Special training:

No special training is required. However, the user should be well instructed in the execution of his task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Further information:

Prepared according to the information available to ALTox on the 8th of December 2008.

The Safety Data Sheet is prepared according to REACH regulation (EC) No 1907/2006.

Edition No.:

1

Date (revision):

8th of December 2008

Changes in section(s):

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