

Safety data sheet

Version: 01.01/USA

SECTION 1: Identification

1.1. Product identifier

Trade name: miRCURY RNA Isolation Kit - Biofluids

Item number: 300112, 300113

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended uses: Laboratory chemicals. For research use only.
Kit containing 7 tubes:

- Lysis Solution BF
- Protein Precipitation Solution BF
- Reaction buffer for rDNase
- rDNase
- Wash Solution 1 BF
- Wash Solution 2 BF
- RNase-Free Water

NB: Only the tubes containing Lysis Solution BF (MLP), rDNase and Wash Solution 1 BF (MW1) pose a danger. This safety data sheet describes the danger of the total content of all the tubes.

1.3. Details of the supplier of the safety data sheet

Supplier: Exiqon A/S
Skelstedet 16
2950 Vedbæk
Denmark
Tel: +4545660888
Fax: +4545661888
Email: support@exiqon.com
WWW: www.exiqon.dk

1.4. Emergency telephone number

+45 45 66 08 88
Emergency telephone comments: The emergency telephone is open between 8 a.m. and 4 p.m. on workdays.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification: Flam. Liq. 2 Acute tox. 4 Skin Sens. 1 Resp. Sens. 1 Aquatic Chronic 3

Most serious harmful effects: Highly flammable liquid and vapour. Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Harmful to aquatic life with long lasting effects.

2.2. Label elements



Signal word:

Danger

H-phrases:

Highly flammable liquid and vapour.
Harmful if swallowed.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Harmful to aquatic life with long lasting effects.

P-phrases:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
Avoid release to the environment.

Supplemental information:

Contact with acids liberates very toxic gas.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CAS No.	Substance	w/w%	Note
9003-98-9	rDNase: Deoxyribonuclease	90-100	.
.	.	.	.
593-84-0	MLP: Guanidiniumthiocyanate	0-50	.
.	.	.	.
.	.	.	.
593-84-0	MW1: Guanidiniumthiocyanate	1-15	.
.	.	.	.
64-17-5	Ethanol	55-75	.
.	.	.	.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air. Seek medical advice in case of breathing difficulties.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of discomfort.
Skin:	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eyes:	Flush with water (preferably using eyewash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Burns:	Flush with water until pain ceases. Remove any clothing that is not stuck to the skin – seek medical advice/transport to hospital. If possible, continue flushing until medical advice is obtained.
Other information:	Bring the safety data sheet or label when seeking medical advice

4.2. Most important symptoms and effects, both acute and delayed

May cause sensitization on inhalation and skin contact. Symptoms include cold, sneezing, breathing difficulties and hives. Reddening, swelling, blistering, and ulceration may develop on

the skin – often slowly. Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms. No special immediate treatment required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited inventory.

Unsuitable extinguishing media Do not use a jet of water, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed:
Sulphur oxides/ Nitrous gases/ Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Move containers from danger area if it can be done without risk. Avoid inhalation of vapor and smoke gases – seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stop leak if this can be done without risk. Wear gloves. In case of insufficient ventilation, wear respiratory protective equipment.

For emergency responders: In addition to the above: Protective suit is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Wipe up minor spills with a cloth.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wash hands before breaks, before using restroom facilities, and at the end of work. Running water and eye wash equipment should be available. Use the product under well-ventilated conditions.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, drugs, etc.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Ingredient:	Exposure limit	Notations
Ethanol	TWA: 1000 ppm, 1900 mg/m ³	OSHA
	TWA: 1000 ppm	ACGIH

Legal basis: ACGIH Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's), 2015. OSHA 29 CFR part 1910.1000, table Z1-Z3, Limits for Air Contaminants 2006.

Measuring methods: Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection:	Wear safety goggles if there is a risk of eye splash.
Personal protective equipment, skin protection:	Wear gloves. Type of material: Nitril rubber. Breakthrough time has not been determined for the product. Change gloves often.
Personal protective equipment, respiratory protection:	Not required.
Environmental exposure controls:	Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State:	Solid substance (rDNase) and Liquid (others)
Color:	No data
Odour:	Odorless /Characteristic
Odour threshold:	No data
pH (solution for use):	No data
pH (concentrate):	4-8 depending on tube.
Melting point/freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	No data
Evaporation rate:	No data
Flammability (solid, gas):	No data
Upper/lower flammability limits:	No data
Upper/lower explosive limits:	No data
Vapor pressure:	No data
Vapour density:	No data
Relative density:	No data
Solubility:	Soluble in the following: Water.
Partition coefficient n-octanol/water:	No data
Auto-ignition temperature:	No data
Decomposition temperature:	No data
Viscosity:	No data
Explosive properties:	No data
Oxidizing properties:	No data

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong alkalis/ Strong acids/ Oxidisers.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Oxidisers/ Strong alkalis/ Strong acids.

10.6. Hazardous decomposition products

Nitrous gases/ Sulphur oxides/ Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral: Harmful if swallowed.

	64-17-5: Rat: LD50 = 6200 mg/kg 593-84-0: Rat: LD50 = 593 mg/kg
Acute toxicity - dermal:	The product does not have to be classified. Based on available data, the classification criteria are not met. 64-17-5: Rabbit: LD50 = >20000 mg/kg 593-84-0: Rabbit: LD50 = 2000 mg/kg
Acute toxicity - inhalation:	The product does not have to be classified. Based on available data, the classification criteria are not met. 64-17-5: Rat, 4h: LC50 = >8000 mg/l 593-84-0: Rat: LD50 = 5319 mg/l/4h
Skin corrosion/irritation:	The product does not have to be classified. Test data are not available for all substances. May cause slight irritation.
Serious eye damage/eye irritation:	The product does not have to be classified. Test data are not available. May cause eye irritation.
Respiratory sensitisation or skin sensitisation:	May cause sensitization on inhalation and skin contact. Symptoms include cold, sneezing, breathing difficulties and hives. Reddening, swelling, blistering, and ulceration may develop on the skin – often slowly.
Germ cell mutagenicity:	The product does not have to be classified. Test data are not available.
Carcinogenic properties:	The product does not have to be classified. Test data are not available. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity:	The product does not have to be classified. Test data are not available.
Single STOT exposure:	The product does not have to be classified. Test data are not available.
Repeated STOT exposure:	The product does not have to be classified. Test data are not available.
Aspiration hazard:	The product does not have to be classified. Test data are not available.
Other toxicological effects:	None known.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Acute toxicity:

64-17-5:
Fish: Pimephales promelas: 96hLC50 = 15300 mg/l
Crustaceans: Daphnia magna: 48hEC50 = 968-14221 mg/l
593-84-0:
Crustaceans: Daphnia magna: 48hEC50 = 42,4 mg/l

12.2. Persistence and degradability

Test data are not available for all substances
64-17-5: Readily biodegradable.

12.3. Bioaccumulative potential

Test data are not available for all substances

64-17-5: Partition coefficient n-octanol/water: -0.31

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

No assessment has been made.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water.

MW1:

If this product as supplied becomes a waste, it meets the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

ID number: D001

Other tubes than MW1:

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

SECTION 14: Transport information

ADR/DOT

MW1:

14.1. UN number

1170

14.2. UN proper shipping name

ETHANOL

14.3. Transport hazard class(es)

3

14.4. Packing group

II

Hazard identification number

33

Tunnel restriction code:

D/E

14.5. Environmental hazards

The product should not be labelled as an environmental hazard (symbol: fish and tree).

IMDG

MW1:

14.1. UN number

1170

14.2. UN proper shipping name

ETHANOL

14.3. Transport hazard class(es)

3

14.4. Packing group

II

14.5. Environmental hazards

The product is not a Marine Pollutant (MP).

IMDG Code segregation group:

-

ICAO/IATA

MW1:

14.1. UN number

1170

14.2. UN proper shipping name

ETHANOL

14.3. Transport hazard class(es) 3
14.4. Packing group II
14.5. Environmental hazards The product should not be labelled as an environmental hazard (symbol: fish and tree).

14.6. Special precautions for user
None.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions: None.

US Federal

TSCA: All ingredients are on the inventory or exempt from listing.

CERCLA: None of the ingredients are on the inventory.

SARA title III Rules

Section 302: None of the ingredients are on the inventory.

Section 311/312 Hazard classes:

Fire Hazard Reactive Hazard Release of Pressure Acute Health Hazard Chronic Health Hazard

Section 313: None of the ingredients are on the inventory.

NFPA ratings (scale 0 - 4)

Health Hazard: 2

Flammability: 3

Instability: 0

HMIS III ratings (scale 0 - 4)

Health hazard: 3

Flammability: 3

Physical hazard: 0

State regulations

Proposition 65

Chemicals known to cause cancer:
None of the ingredients are listed

Chemicals known to cause reproductive toxicity:
None of the ingredients are listed

SECTION 16: Other information

Changes have been made in the following sections: 2,3,16

Abbreviation explanations: PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very Persistent and Very Bioaccumulative
STOT: Specific Target Organ Toxicity

Classification method: Calculation based on the hazards of the known components.

Training: A thorough knowledge of this safety data sheet should be a prerequisite condition.

Other information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of

safety data sheets in accordance with CFR29, §1910.1200.

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