

# Safety data sheet

Revision: 15-03-2016  
Replaces: 18-11-2014  
Version: 01.01/EU-UK

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

### 1.1. Product identifier

Trade name: miRCURY RNA isolation kit - FFPE  
Item number: 300115

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

Recommended uses: Life Science laboratory chemicals. For research use only.  
Kit containing 9 tubes:

- Paraffin Dissolver A
- Lysis Buffer B
- Precipitation Buffer C
- Binding Buffer D
- DNase Buffer E
- Wash Buffer F (concentrate)
- H<sub>2</sub>O RNase free
- rDNase, RNase free (lyophilized)
- Proteinase K

NB: Only the tubes containing Binding Buffer D, rDNase, RNase free (lyophilized) and Proteinase K 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.

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

CLP-classification (Regulation (EC) No 1272/2008): Flam. Liq. 2; H225 Skin Sens. 1; H317 Eye Irrit. 2; H319 Resp. Sens. 1; H334 STOT SE 3; H335 Carc. 2; H351

*Please see section 16 for the full text of H-phrases.*

Most serious harmful effects: Highly flammable liquid and vapour. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer.  
May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.

## 2.2. Label elements



Signal word:	Danger
Contains:	rDNase; 1,4-dioxane; Proteinase (Tritirachium album)
H-phrases:	Highly flammable liquid and vapour.(H225) May cause an allergic skin reaction.(H317) Causes serious eye irritation.(H319) May cause allergy or asthma symptoms or breathing difficulties if inhaled.(H334) May cause respiratory irritation.(H335) Suspected of causing cancer.(H351)
P-phrases:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.(P210) Wear protective gloves/eye protection.(P280-hø) If experiencing respiratory symptoms: Call a POISON CENTER/doctor.(P342/311-a)
Supplemental information:	May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.

## 2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Registration number	CAS/ EC No.	Substance	CLP-classification (Regulation (EC) No 1272/2008)	w/w%	Note
.	.	Tube: rDNase, RNase free (lyophilized)	.	.	.
.	9003-98-9	rDNase	Skin Sens. 1;H317 Resp. Sens. 1;H334	90-100	.
.	232-667-0	.	.	.	.
.	.	Tube: Binding Buffer D	.	.	.
.	123-91-1-A	1,4-dioxane	Flam. Liq. 2;H225 Carc. 2;H351 Eye Irrit. 2;H319	40-90	.
.	204-661-8	.	STOT SE 3;H335	.	.
.	.	Tube: Proteinase K	.	.	.
.	39450-01-6-A	Proteinase (Tritirachium album)	.	.	.
.	254-457-8	.	Skin Sens.;H317 Resp. Sens. 1;H334	1-3	.
.	.	.	.	.	.

Please see section 16 for the full text of H-phrases.

Other information: Any letters after the CAS number refer to individual data sets.

## 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 immediately with water (preferably using eye wash equipment) for at least 5 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.
Burns:	Flush with water until pain ceases. Remove clothing that is not stuck to the skin – seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.

Other information: When obtaining medical advice, show the safety data sheet or label.

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

Degreases and dries the skin. Repeated exposure may cause skin dryness or cracking. Irritating to eyes. Causes a burning sensation and tearing. May cause sensitization by inhalation and skin contact. Symptoms include cold, sneezing, breathing difficulties and hives. Reddening, swelling, blistering and ulceration may develop on the skin – often slowly. Suspected of causing cancer. Inhalation of vapours is irritating to the upper airways.

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

Treat symptoms. No special immediate treatment required.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media Extinguish with powder, foam, carbon dioxide or water mist.

Unsuitable extinguishing media Do not use water stream, as it may spread the fire.

**5.2. Special hazards arising from the substance or mixture**

Product decomposes in fire conditions or when heated to high temperatures, and inflammable and toxic gases may be released.

**5.3. Advice for firefighters**

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

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**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. Wear safety goggles.

For emergency responders: In addition to the above: Protective suit equivalent to EN 368, type 3, 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**

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. 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.

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**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Running water and eye wash equipment must be available. Wash hands before breaks, before using restroom facilities, and at the end of work. Smoking and naked flames prohibited. A workplace assessment must be conducted to ensure that employees are not exposed to effects that may involve a risk during pregnancy.

**7.2. Conditions for safe storage, including any incompatibilities**

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

**7.3. Specific end use(s)**

None.

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**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

Occupational exposure limits:

Ingredient:	Exposure limit	Notation
1,4-dioxane	20 (8h), - (15m) ppm 73 (8h), - (15m) mg/m3	-

Legal basis: Commission Directive 2000/39/EC (Occupational Exposure Limits). Last amended by Commission Directive 2009/161/EU.

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. Eye protection must conform to EN 166.

Personal protective equipment, skin protection: Wear gloves. Type of material: Latex/ Neoprene rubber/ Nitrile rubber. Gloves must conform to EN 374.

Personal protective equipment, respiratory protection: Not required.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

State: Liquid /Solid substance

Colour: Colourless /White

Odour: No data

Odour threshold: No data

pH (solution for use): No data

pH (concentrate): No data

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

Vapour pressure: No data

Vapour density: No data

Relative density: No data

Solubility: No data

Partition coefficient n-octanol/water: No data

Auto-ignition temperature: No data

Decomposition temperature: No data

Viscosity: No data

Explosive properties: No data

Oxidising properties: No data

### 9.2. Other information

None.

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with the following: Strong alkalis/ Strong acids.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong alkalis/ Strong acids.

### 10.6. Hazardous decomposition products

Can generate harmful flue gases containing carbon monoxide in the event of fire.

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## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

Acute toxicity - oral:	The product does not have to be classified. Test data are not available. 123-91-1-A: Rat: LD50 = 5200 mg/kg
Acute toxicity - dermal:	The product does not have to be classified. Test data are not available. 123-91-1-A: Rabbit: LD50 = 7378 mg/kg
Acute toxicity - inhalation:	The product does not have to be classified. Test data are not available. 123-91-1-A: Rat: LC50 = 48,5-53,4 mg/m <sup>3</sup>
Skin corrosion/irritation:	The product does not have to be classified. Test data are not available. Degreases and dries the skin. Repeated exposure may cause skin dryness or cracking.
Serious eye damage/eye irritation:	Irritating to eyes. Causes a burning sensation and tearing.
Respiratory sensitisation or skin sensitisation:	May cause sensitization by 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:	Suspected of causing cancer.
Reproductive toxicity:	The product does not have to be classified. Test data are not available.
Single STOT exposure:	Inhalation of vapours is irritating to the upper airways.
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.

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## **SECTION 12: Ecological information**

### **12.1. Toxicity**

The product does not have to be classified. Test data are not available.

### **12.2. Persistence and degradability**

Test data are not available.

### **12.3. Bioaccumulative potential**

Test data are not available.

### **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.

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## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Avoid discharge to drain or surface water.  
Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.  
EWC code: Depends on line of business and use, for instance 16 05 06 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

Absorbent/cloth contaminated with the product:  
EWC code: 15 02 02 absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

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### SECTION 14: Transport information

#### ADR/RID

14.1. UN number	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1,4-dioxane mixture)
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).

#### ADN

14.1. UN number	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1,4-dioxane mixture)
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).
Transport in tank vessels:	-

#### IMDG

14.1. UN number	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1,4-dioxane mixture)
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

14.1. UN number	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (1,4-dioxane mixture)
14.3. Transport hazard class(es)	3
14.4. Packing group	II

#### 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.

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### SECTION 15: Regulatory information

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

Special provisions: Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product.

### 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

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### SECTION 16: Other information

Changes have been made in the following sections: 2,3,8,16

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.

H-phrases: H225 Highly flammable liquid and vapour.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.

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 1907/2006/EC (REACH) as subsequently changed.

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