

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

- Identification of the substance or preparation:

### Lysis Buffer (Micro RNA and Total RNA Purification)

SKUs: NP100026, NP100028

Order numbers: 11510-025, 11520-050

- Company Identification:

OriGene Technologies, Inc  
9620 Medical Center Drive, Suite 200 Rockville, MD 20850  
Tel: (301)-340-3188, Fax: (301)-340-9254

- Emergency Address:

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## 2. Composition/Data On Components:

Chemical characterization

Description:

Mixture of the substances listed below with nonhazardous additions.

Dangerous Components:

CAS # 593-84-0 guanidinium thiocyanate 30% -75 %

Additional information

For the wording of the listed risk phrases refer to section 16.

## 3 Hazards Identification:

Hazard description Xn Harmful

Information pertaining to particular dangers for man and environment

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

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

NFPA ratings (scale 0-4)

Health = 1

Fire = 0

Reactivity = 0

HMIS Ratings

Health = 1

Flammability = 0

Reactivity = 0

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### 4 First Aid Measures

#### General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact Generally the product does not irritate the skin.

#### After eye contact

Rinse opened eye for several minutes under running water.

After swallowing Immediately call a doctor.

### 5 Fire Fighting Measures

#### Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: Mount respiratory protective device.

### 6 Accidental Release Measures

Person-related safety precautions: Not required.

#### Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/surface or ground water.

#### Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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**7 Handling And Storage****Handling**

Information for safe handling:

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

No special measures required.

**Storage**

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

**Storage class**

Class according to regulation on flammable liquids: Not Applicable

**8 Exposure Controls And Personal Protection**

Additional information about design of technical systems:

No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:

The lists that were valid during the creation were used as basis.

**Personal protective equipment****General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

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## 9 Physical And Chemical Properties:

### General Information

Form: Fluid

Color: Colorless

Odor: Odorless

Value/Range Unit

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100 ° C

Flash point: Not applicable

Auto igniting: Product is not selfigniting.

Danger of explosion:

Product does not present an explosion hazard.

Density: at 20 ° C 1.135 g/cm<sup>3</sup>

Solubility in / Miscibility with

Water: Fully miscible

Solvent content:

Organic solvents: 0.0 %

Water: 53 %

Solids content: 47 %

## 10 Stability And Reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Dangerous reactions Reacts with acids, alkalis and oxidizing agents

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

Sulfur oxides (SO<sub>x</sub>)

Nitrogen oxides (NO<sub>x</sub>)

## 11 Toxicological Information

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

## 12 Ecological Information:

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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## 13 Disposal Consideration

**Product:**

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

# Materials Safety Data Sheet



Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

## 14 Transport Information

DOT regulations: This product is considered non hazardous for transport

Hazard class: none

Land transport ADR/RID (cross-border)

ADR/RID class: none

Maritime transport IMDG:

IMDG Class: none

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR: This product is considered non hazardous for transport

ICAO/IATA Class: none -

## 15 Regulations

SARA:

Section 355 (Extremely hazardous substance):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substance Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

Carcinogenicity categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Markings:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product: Xn Harmful

Hazard-determining components of labelling: guanidinium thiocyanate

Risk phrases:

20/21/22-32-52/53 Harmful by inhalation, in contact with skin and if swallowed.

Safety phrases:

9 Keep container in a well-ventilated place.

36/37-61 Wear suitable protective clothing and gloves.

National regulations

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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**Other Information:**

prepared acc. to ISO/DIS 11014

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.