

# MSDS

## Isolation Buffer

Version 1.0

Date of issue: 2017-08-11

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

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#### 1.1 Product identifier

<i>Product Name</i>	Isolation Buffer (IB)
<i>Product Number</i>	N/A
<i>Kit name</i>	SPLIT RNA Extraction Kit
<i>Kit number</i>	008.48
<i>Brand</i>	Lexogen

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

*Identified uses:* Laboratory chemicals. For research use only.

#### 1.3 Details of the supplier of the safety data sheet

<i>Company:</i>	TATAA Biocenter Odinsgatan 28 411 03 Göteborg Sweden
<i>Phone:</i>	+46 31 761 5700
<i>Fax:</i>	+46 31 15 28 90
<i>Email:</i>	info@tataa.com

#### 1.4 Emergency telephone number

*Emergency number:* 112

### SECTION 2: Hazards identification



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#### 2.1 Classification of the substance or mixture

<i>Acute toxicity, Inhalation</i>	Category 2
<i>Serious eye damage</i>	Category 1
<i>Skin corrosion</i>	Category 1C
<i>Acute toxicity, Oral</i>	Category 4
<i>Acute toxicity, Dermal</i>	Category 4
<i>Chronic aquatic toxicity</i>	Category 3

## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

<i>Pictogram:</i>		
<i>Signal word:</i>	Danger	
<i>Hazard statement(s)</i>		
<i>H302 + H312 + H332</i>	Harmful if swallowed, in contact with skin or if inhaled.	
<i>H314</i>	Causes severe skin burn and eye damage.	
<i>H315</i>	Causes skin irritation.	
<i>H318</i>	Causes serious eye damage.	
<i>H330</i>	Fatal if inhaled.	
<i>H412</i>	Toxic to aquatic life with long lasting effects.	
<i>Precautionary statement(s)</i>		
<i>P260</i>	Do not breathe dust/fume/gas/mist/vapours/spray.	
<i>P273</i>	Avoid release to the environment	
<i>P280</i>	Wear protective gloves/protective clothing/eye protection/face protection.	
<i>P284</i>	Wear respiratory protection.	
<i>P305 + P351 + P338</i>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
<i>P310</i>	Immediately call a POISON CENTER or doctor/physician.	
<i>Supplemental Hazard information (EU)</i>		
<i>EUH032</i>	Contact with acids liberates very toxic gas.	

## 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

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### 3.2 Mixtures

<i>Substance</i>	<i>Concentration</i>	<i>Classification</i>
Guanidinium thiocyanate EC-No.: 209-812-1 CAS-No.: 593-84-0	20-80 wt%	Acute toxicity (category 4) H302 Harmful if swallowed H312 Harmful in contact with skin H332 Harmful if inhaled Skin corrosion (category 1C) H314 Causes severe skin burns and eye damage Hazardous to the aquatic environment (category chronic 3) H412 Harmful to aquatic life with long lasting effects
Sodium N-lauroylsarcosinate EC-No.: 205-281-5 CAS-No.: 137-16-6	1-10 wt%	Acute toxicity (category 2) H330 Fatal if inhaled Skin irritation (category 2) H315 Causes skin irritation Serious eye damage (category 1) H318 Causes serious eye damage

## SECTION 4: First aid measures

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### 4.1 Description of first aid measures

<i>General advice:</i>	After exposure, consult physician. Show the physician this material safety data sheet.
<i>If on skin:</i>	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
<i>If in eyes:</i>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<i>If swallowed:</i>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<i>If inhaled:</i>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or section 11.

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

No data available.

## **SECTION 5: Firefighting measures**

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### **5.1 Extinguishing media**

*Suitable extinguishing media:* Use extinguishing media suitable for surrounding fire, for example extinguishing powder, carbon dioxide or foam.

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

Carbon oxides, nitrogen oxides (NO<sub>x</sub>), sulphur oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for fire-fighting if necessary.

## **SECTION 6: Accidental release measures**

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### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and material for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal..

### **6.4 Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

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### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Ensure all equipment is electrically grounded before beginning transfer operations. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Do not store near acids.

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

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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

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### **8.1 Control parameters**

Does not contain any substances with national limit values.

### **8.2 Exposure controls**

#### *Appropriate engineering controls:*

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### *Personal protective equipment*

##### *Respiratory protection*

Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### *Eye/face protection*

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### *Skin protection*

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

##### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

Test method: EN374

If used in solution, or mixed with other substances, and under conditions that differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### *Body Protection*

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **SECTION 9: Physical and chemical properties**

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

*a) Appearance:*

Form: liquid, clear

Colour: colourless

*b) Odour:*

Not known

*c) Odour threshold:*

Not applicable

*d) pH:*

Not measured

*e) Melting point/freezing point:*

Not measured

*f) Initial boiling point and boiling range:*

Not measured

*g) Flash point:*

Not measured

*h) Evaporation rate:*

Not measured

*i) Flammability (solid, gas):*

Not measured

*j) Upper/lower flammability or explosive limits:*

Not measured

*k) Vapour pressure:*

Not measured

*l) Vapour density:*

Not measured

*m) Relative density:*

Not measured

*n) Solubility(ies):*

Not measured

*o) Partition coefficient: n-octanol/water:*

Not measured

*p) Auto-ignition temperature:*

Not measured

*q) Decomposition temperature:*

Not measured

*r) Viscosity:*

Not measured

*s) Explosive properties:*

Not measured

*t) Oxidising properties:*

Not measured

## **9.2 Other information**

No other information is available.

## **SECTION 10: Stability and Reactivity**

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### **10.1 Reactivity**

Not measured

### **10.2 Chemical stability**

Not measured

### **10.3 Possibility of hazardous reactions**

No hazardous reactions are known.

### **10.4 Conditions to avoid**

No conditions to avoid are known.

### **10.5 Incompatible materials**

Strong acids, strong oxidizing agents, cyanides.

### **10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

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### 11.1. Information on toxicological effects

#### a) Acute toxicity

*Sodium N-lauroylsarcosinate*

LD50 Oral – rat > 5000 mg/kg (OECD Test Guideline 401)

LD50 Inhalation – rat – 4h 0,05 – 0,5 mg/l

*Guanidinum thiocyanate*

LD50 Oral – rat 593 mg/kg

LD50 Intraperitoneal – mouse 300 mg/kg

#### b) Skin corrosion/irritation

*Sodium N-lauroylsarcosinate*

Skin – rabbit Result: Irritating to skin.

*Guanidine thiocyanate*

May be harmful if absorbed through skin. Causes skin burns.

#### c) Serious eye damage/irritation

*Sodium N-lauroylsarcosinate*

Eyes – rabbit Result: Risk of serious damage to eyes. (OECD Test Guideline 405)

*Guanidine thiocyanate*

Causes eye burns.

#### d) Respiratory or skin sensitisation

*Sodium N-lauroylsarcosinate*

Maximisation Test - guinea pig Result: Does not cause skin sensitisation.

#### e) Germ cell mutagenicity

*Sodium N-lauroylsarcosinate*

Chromosome aberration test in vitro

Human lymphocytes Result: Negative

#### f) Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### g) Reproductive toxicity

No data available

#### h) STOT-single exposure

No data available

#### i) STOT-repeated exposure

No data available



j) *Aspiration hazard.*

*Sodium N-lauroylsarcosinate*

No data available

*Guanidine thiocyanate*

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

## **SECTION 12: Ecological information**

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### **12.1 Toxicity**

*Toxicity to fish*                      Semi-static test EC50 - Danio rerio (zebra fish) - 107 mg/l - 96 h  
(OECD Test Guideline 203)

*Toxicity to daphnia and other aquatic invertebrates*

Immobilization LC50 - Daphnia magna (Water flea) - 29,7 mg/l -  
48 h (OECD Test Guideline 202)

*Toxicity to algae*                      Static test EC50 - Desmodesmus subspicatus (green algae) - 79  
mg/l - 72 h (OECD Test Guideline 201).

*Toxicity to bacteria*                      Respiration inhibition NOEC - Sludge Treatment - 100 mg/l - 3 h  
(OECD Test Guideline 209)

### **12.2 Persistence and degradability**

*Biodegradability*                      Aerobic - Exposure time 28 d  
Result: 82 % - Readily biodegradable.

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

### **12.6 Other adverse effects**

No data available.

## SECTION 13: Disposal considerations

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### 13.1 Waste treatment methods

#### *Product*

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### *Contaminated packaging*

Dispose of as unused products.

## SECTION 14: Transport Information

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### 14.1. UN number

*ADR/RID:* 2810

*IMDG:* 2810

*IATA:* 2810

### 14.2. UN proper shipping name

*ADR/RID:* Toxic, liquids, organic, n.o.s. (Sodium N-lauroylsarcosinate, Guanidine thiocyanate)

*IMDG:* Toxic, liquids, organic, n.o.s. (Sodium N-lauroylsarcosinate, Guanidine thiocyanate)

*IATA:* Toxic, liquids, organic, n.o.s. (Sodium N-lauroylsarcosinate, Guanidine thiocyanate)

### 14.3. Transport hazard class(es)

*ADR/RID:* 6.1

*IMDG:* 6.1

*IATA:* 6.1

### 14.4. Packing group

*ADR/RID:* III

*IMDG:* III

*IATA:* III

### 14.5. Environmental hazards

*ADR/RID:* No

*IMDG:* Not marine pollutant

*IATA:* No

### 14.6. Special precautions for user

No data available.

### 14.7. Transport in bulk according to Annex II of Marpol112 and the IBC Code

Not applicable

## **SECTION 15: Regulatory information**

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

No legislation specific for the mixture is known.

### **15.2 Chemical Safety Assessment**

The supplier has not carried out a chemical safety assessment for the product.

## **SECTION 16: Other information**

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This information is based upon the present state of our knowledge.