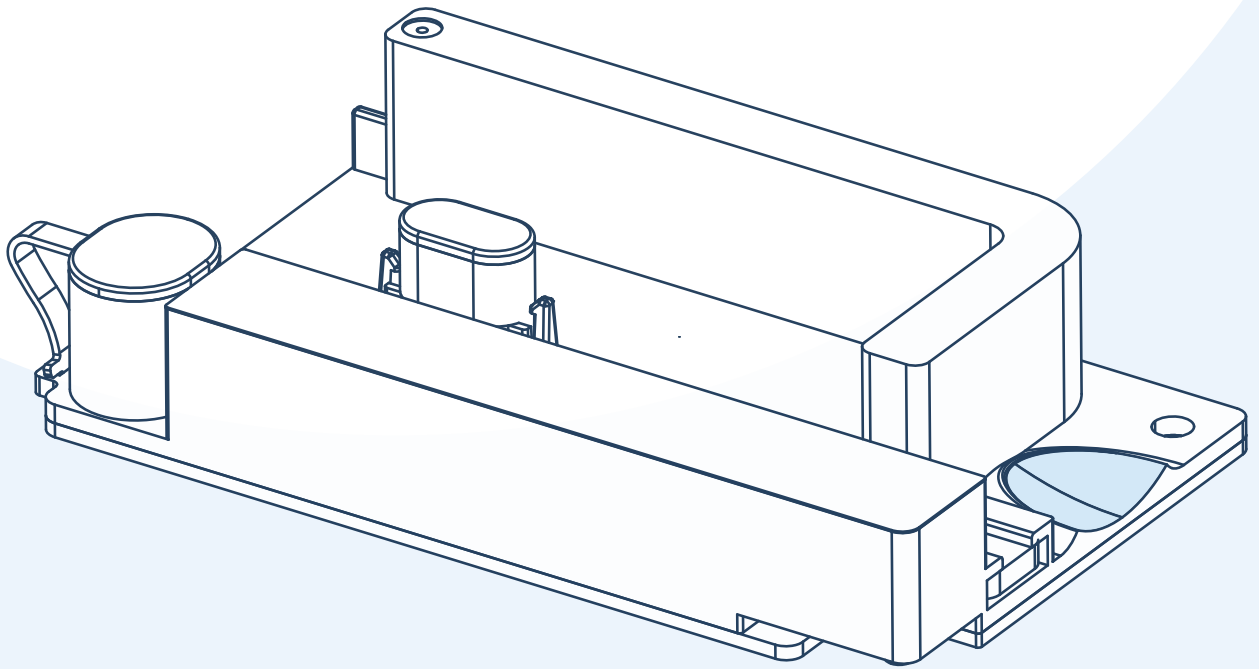


X8™ Cellular RNA Cartridge Kit

FOR USE WITH:

X8 OneTouch Instrument (Cat# X8-OT-101-IN)



Safety Data Sheet (SDS) cover letter for product:**X8™ Cellular RNA Cartridge Kit (24 preps)**

Catalog number: X8-CR-001-24

The X8 Cellular RNA Cartridge Kit includes:

- 24- X8 Cellular RNA Cartridges (PN. X8-CR03001-24)
- 9 mL- C-RNA Lysis Buffer (PN. X8-LB2)
- 5 mL - RNA Elution Buffer (PN. X8-EB2)

This product contains one or more components with related SDS, listed below.

A. SDS for X8 Cellular RNA Cartridges (PN. X8-CR03001-24)

B. SDS for C-RNA Lysis Buffer (PN. X8-LB2)

C. SDS for RNA Elution Buffer (PN. X8-EB2)

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Safety Data Sheet prepared in accordance with SS 586 Part 3.

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A. SDS for X8 Cellular RNA Cartridges

1. Identification

1.1. Product identifier

- Trade name. X8™ Cellular RNA Cartridges
- REACH Registration number. Not relevant.

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

- Product category. The X8 Cellular RNA Cartridges rapidly automates cellular RNA extraction and purification from specified sample types.
- Details of the supplier of the safety data sheet.

Manufacturer/Supplier

One BioMed Pte Ltd,
4 Fusionopolis Way,
Kinesis #06
Singapore 138635
tel. +65 8189 4412
Email. support@onebiomed.com

1.3. Emergency telephone number. +65 8189 4412

2. Hazard identification

2.1. Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008.
The product is not classified, according to the CLP regulation.

2.2. Label elements

- Labelling according to Regulation (EC) No 1272/2008. Non-Regulated Material.
- Hazard pictograms. Non-Regulated Material.
- Signal word. Non-Regulated Material.
- Hazard statements. Non-Regulated Material.
- Additional information. This value refers to knowledge of known, established toxicological or ecotoxicological value. 0% of the mixture consists of component(s) of unknown toxicity. Contains 0% of components with unknown hazards to the aquatic environment.

- 2.3. **Other hazards.** None known
- **Results of PBT and vPvB assessment.**

PBT.	Not applicable.
vPvB.	Not applicable.
- 3. Composition/ information on ingredients**
- 3.1. **Chemical characterisation.** Mixtures
- **Description.** Mixture of substances listed below with nonhazardous additions.
 - **Dangerous components.** Non-Regulated Material.
 - **Additional information.** For the wording of the listed hazard phrases refer to section 16.
- 4. First-aid measures**
- 4.1. **Description of first aid measures**
- **General information.**
If symptoms persist, call a physician.
 - **After inhalation.**
Supply fresh air; consult doctor in case of complaints.
 - **After skin contact.**
Generally the product does not irritate the skin. If skin irritation occurs, consult a doctor.
 - **After eye contact.**
If eye irritation occurs, consult a doctor. Rinse opened eye for several minutes under running water.
 - **After swallowing.**
If swallowed and symptoms occur, consult a doctor.
- 4.2. **Most important symptoms and effects, both acute and delayed.**
No further relevant information available.
- 4.3. **Indication of any immediate medical attention and special treatment needed.** Treat symptomatically.
- 5. Fire-fighting measures**
- 5.1. **Extinguishing media.**
- **Suitable extinguishing agents.**
Use fire extinguishing methods suitable to surrounding conditions.
 - **For safety reasons unsuitable extinguishing agents.**
No further relevant information.

- 5.2. **Special hazards arising from the substance or mixture.** No further relevant information available.
- 5.3. **Advice for firefighters.**
- **Protective equipment.** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear to prevent contact with skin and eyes.
- 6. Accidental release measures**
- 6.1. **Personal precautions, protective equipment and emergency procedures.** Not required.
- 6.2. **Environmental precautions.** No special measures required.
- 6.3. **Methods and material for containment and cleaning up.**
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.
- 6.4. **Reference to other sections.**
- See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.
- 7. Handling & storage**
- 7.1. **Precautions for safe handling.** No special precautions are necessary, if used correctly.
- **Information about fire and explosion protection.** No special measures required.
- 7.2. **Conditions for safe storage, including any incompatibilities**
- 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.** None.
- 7.3. **Specific end use(s).** No further relevant information available.

8. Exposure controls / personal protection

8.1. Control parameters

- Additional information about design of technical facilities. No further data; see item 7.
- Ingredients 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 valid during the making were used as basis.

8.2. Exposure controls

- Personal protective equipment.
- General protective and hygienic measures. The usual precautionary measures are to be adhered to when handling chemicals. Wash hands before breaks and at the end of work.
- Respiratory protection. Not required.
- Protection of hands. Not required.
- Material of gloves. Not applicable.
- Penetration time of glove material. Not applicable.



- Eye protection. Goggles recommended during refilling.

8.3. Environmental exposure controls. None.

9. Physical & chemical properties

9.1. Information on basic physical and chemical properties

General Information

- Appearance

Form.	Liquid.
Colour.	Clear.
- Odour. Odourless.
- pH-value. Not determined.
- Change in condition

Melting point/freezing point.	Not determined.
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• Flash point.	Not applicable.
• Flammability (solid, gas).	Not applicable.
• Ignition temperature.	Not applicable.
• Decomposition temperature.	Not determined.
• Auto-ignition temperature.	Product is not self-igniting.
• Explosive properties.	Product does not present an explosion hazard.
• Explosion limits Lower.	Not determined.
Upper.	Not determined.
• Vapour pressure.	Not determined.
• Density.	Not determined.
• Relative density.	Not determined.
• Vapour density.	Not determined.
• Evaporation rate.	Not determined.
• Solubility in / Miscibility with water.	Not miscible or difficult to mix.
• Partition coefficient. n-octanol/water.	Not determined.
• Viscosity. Dynamic.	Not determined.
Kinematic.	Not determined.
• Solvent content. VOC content.	0.0%
9.2. Other information.	No further relevant information available.

10. Stability & reactivity

10.1. **Reactivity.** No further relevant information available.

10.2. **Chemical stability.** Product is stable under normal conditions.

- **Thermal decomposition / conditions to be avoided.**
No decomposition if used according to specifications.

- 10.3. **Possibility of hazardous reactions.** No dangerous reactions known.
- 10.4. **Conditions to avoid.** No further relevant information available.
- 10.5. **Incompatible materials.** No further relevant information available.
- 10.6. **Hazardous decomposition products.** No dangerous decomposition products known.

11. Toxicological information

11.1. Information on toxicological effects

- **Acute toxicity.** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification.** No data available.

Primary irritant effect

- **Skin corrosion/irritation.** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation.** Based on available data, the classification criteria are not met.
- **Sensitisation.** Based on available data, the classification criteria are not met.

Additional toxicological information.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction).

- **Germ cell mutagenicity.** Based on available data, the classification criteria are not met.
- **Carcinogenicity.** Based on available data, the classification criteria are not met.
- **Reproductive toxicity.** Based on available data, the classification criteria are not met.
- **STOT (Specific target organ toxicity)-single exposure.** Based on available data, the classification criteria are not met.
- **STOT (Specific target organ toxicity)-repeated exposure.** Based on available data, the classification criteria are not met.
- **Aspiration hazard.** Based on available data, the classification criteria are not met.

12. Ecological information

13.1. Toxicity

- Aquatic toxicity. No further relevant information available.

13.2. **Persistence and degradability.** No further relevant information available.

13.3. **Bioaccumulative potential.** No further relevant information available.

13.4. **Mobility in soil.** No further relevant information available.

- Additional ecological information.
- General notes. Generally not hazardous for water.

13.5. Results of PBT and vPvB assessment

- PBT. Not applicable.
- vPvB. Not applicable.

13.6. **Other adverse effects.** No further relevant information available.

13. Disposal considerations

14.1. Waste treatment methods

- Recommendation. Observe all federal, state and local environmental regulations when disposing of this material.

Uncleaned packaging

- Recommendation. Disposal must be made according to official regulations.

14. Transport information

15.1. UN-Number

- ADR/ADN, IMDG, IATA Non-Regulated Material.

15.2. UN proper shipping name

- ADR/ADN, IMDG, IATA Non-Regulated Material.

15.3. Transport hazard class(es)

- ADR/ADN, ADN, IMDG, IATA
- Class. Non-Regulated Material.

15.4. **Packing group**

- ADR/ADN, IMDG, IATA Non-Regulated Material.

15.5. **Environmental hazards.**

Not applicable.

15.6. **Special precautions for user**

Not applicable.

15.7. **Transport in bulk according to Annex II of**

- Marpol and the IBC Code Not applicable.
- UN "Model Regulation". Non-Regulated Material.

15. Regulatory information

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

Poisons Act - Schedule 1		
593-84-0	guanidinium thiocyanate	29339990

Poisons Act - Schedule 2, Group II		
None of the ingredients are listed.		

Health Products Act - First Schedule- Psychotropic Substances		
None of the ingredients are listed.		

- Directive 2012/18/EU. Substance is not listed.
- Named dangerous substances - ANNEX I. None of the ingredients are listed.

LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)		
9002-93-1	Polyethylene glycol octylphenol ether	Sunset date: 2021-01-04

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II		
None of the ingredients are listed.		

- REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))		
None of the ingredients are listed.		

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients are listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients are listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients are listed.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

16.2. **Chemical safety assessment.** A chemical safety assessment has not been carried out.

16. Other information

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.

17.1. **Abbreviations and acronyms.** Refer to page 32.

B. SDS for X8 C-RNA Lysis Buffer

1. Identification

1.1. Product identifier

- Trade name. C-RNA Lysis Buffer
- REACH Registration number. Not relevant.

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

- Product category. The X8 C-RNA Lysis Buffer is for use with Cellular RNA Cartridge Kit. Optimized for lysis of mammalian cell culture samples to extract cellular RNA with minimal DNA copurification.

2. Hazard identification

2.1. Classification of the substance or mixture



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

2.2. Label elements

- Labelling according to Regulation (EC) No 1272/2008. The product is classified and labelled according to the CLP regulation.
- Hazard pictograms.



GHS05 GHS07

- Signal word. Danger
- Hazard-determining components of labelling. guanidinium thiocyanate
- Hazard statements.

H332 Harmful if inhaled.
 H318 Causes serious eye damage.

• **Precautionary statements.**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear eye protection / face protection.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P312 Call a POISON CENTER/doctor if you feel unwell.
Additional information. This value refers to knowledge of known, established toxicological or ecotoxicological values.
 EUH032 Contact with acids liberates very toxic gas.
 0 % of the mixture consists of component(s) of unknown toxicity.
 Contains 10 % of components with unknown hazards to the aquatic environment.

2.3. **Other hazards.** None known






• **Results of PBT and vPvB assessment.**

PBT. Not applicable.
 vPvB. Not applicable.

3. Composition/ information on ingredients

3.1. **Chemical characterisation.** Mixtures

- **Description.** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
593-84-0	guanidinium thiocyanate  Acute Tox. 2, H330;  Acute Tox. 4, H302; Acute Tox. 4, H312	≥ 10-<20%
9002-93-1	Polyethylene glycol octylphenol ether  Eye Dam. 1, H318;  Acute Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H302; Skin Irrit. 2, H315	≤2.5%

SVHC	
9002-93-1	Polyethylene glycol octylphenol ether

- **Additional information.** For the wording of the listed hazard phrases refer to section 16.

4. First-aid measures

4.1. Description of first aid measures

- **General information.**
If symptoms persist, call a physician.
- **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. If skin irritation occurs, consult a doctor.
- **After eye contact.**
Have eyes examined and tested by medical personnel.
Get immediate medical attention.
Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes.
Rinse opened eye for several minutes under running water.
- **After swallowing.**
If swallowed and symptoms occur, consult a doctor.

4.2. **Most important symptoms and effects, both acute and delayed.**
No further relevant information available.

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

5. Fire-fighting measures

5.1. Extinguishing media.

- **Suitable extinguishing agents.**
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents.**
No further relevant information.

5.2. Special hazards arising from the substance or mixture.

No further relevant information available.

5.3. Advice for firefighters.

- **Protective equipment.** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear to prevent contact with skin and eyes.
- 6. Accidental release measures**
- 6.1. **Personal precautions, protective equipment and emergency procedures.** Mount respiratory protective device.
 - 6.2. **Environmental precautions.** Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water. Do not allow to enter sewers, surface or ground water.
 - 6.3. **Methods and material for containment and cleaning up.** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated materials as waste according to section 13. Ensure adequate ventilation. Dispose of the material collected according to regulations.
 - 6.4. **Reference to other sections.**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.
- 7. Handling & storage**
- 7.1. **Precautions for safe handling.** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
 - Information about fire and explosion protection. No special measures required.
 - 7.2. **Conditions for safe storage, including any incompatibilities**

Storage

 - Requirements to be met by storerooms and receptacles. No special requirements.
 - Information about storage in one common storage facility. Do not store together with acids.
 - Further information about storage conditions. Keep container tightly sealed.
 - 7.3. **Specific end use(s).** No further relevant information available.
- 8. Exposure controls / personal protection**
- 8.1. **Control parameters**
 - Additional information about design of technical facilities. No further data; see item 7.

- **Ingredients 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 valid during the making were used as basis.

8.2. Exposure controls

- **Personal protective equipment.**
- **General protective and hygienic measures.** The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.
- **Respiratory protection.** Not required.
- **Protection of hands.** Not required.
- **Material of gloves.** Not applicable.
- **Penetration time of glove material.** Not applicable.



- **Eye protection.** Goggles recommended during refilling.

8.3. Environmental exposure controls. None.

9. Physical & chemical properties

9.1. Information on basic physical and chemical properties

General Information

- **Appearance**

Form.	Liquid.
Colour.	Clear.
- **Odour.** Slight.
- **pH-value.** Not determined.
- **Change in condition**

Melting point/freezing point.	Not determined.
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- **Flash point.** >113 °C.
- **Flammability (solid, gas).** Not applicable.

• Ignition temperature.	≥305 °C.
• Decomposition temperature.	Not determined.
• Auto-ignition temperature.	Product is not self-igniting.
• Explosive properties.	Product does not present an explosion hazard.
• Explosion limits Lower.	Not determined.
Upper.	Not determined.
• Vapour pressure.	≤23 hPa.
• Density @ 20 °C.	1.0083 g/cm ³ .
• Relative density.	Not determined.
• Vapour density.	Not determined.
• Evaporation rate.	Not determined.
• Solubility in / Miscibility with water.	Fully miscible.
• Partition coefficient. n-octanol/water.	Not determined.
• Viscosity. Dynamic.	Not determined.
Kinematic.	Not determined.
• Solvent content. Water.	87.0 %
VOC(EC).	0.0 g/l
	0.00 %
Solids content.	12.3%

9.2. **Other information.** No further relevant information available.

10. Stability & reactivity

10.1. **Reactivity.** No further relevant information available.

10.2. **Chemical stability.** Product is stable under normal conditions.

- **Thermal decomposition / conditions to be avoided.**
No decomposition if used according to specifications.

10.3. **Possibility of hazardous reactions.** No dangerous reactions known.

- 10.4. **Conditions to avoid.** No further relevant information available.
- 10.5. **Incompatible materials.** No further relevant information available.
- 10.6. **Hazardous decomposition products.** No dangerous decomposition products known.

11. Toxicological information

11.1. Information on toxicological effects

- Acute toxicity. Harmful if inhaled.
- LD/LC50 values relevant for classification.

LD/LC50 values relevant for classification		
9002-93-1	Polyethylene glycol octylphenol ether	
Oral	LD50	1,800 mg/kg (Rat)
Dermal	LD50	8,000 mg/kg (Rat)
Inhalative	LC50/4h	8.9 mg/l (Pimephales)

- Primary irritant effect
- Skin corrosion/irritation. Based on available data, the classification criteria are not met.
- Serious eye damage/irritation. Causes serious eye damage.
- Sensitisation. Based on available data, the classification criteria are not met.

Additional toxicological information.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction).

- Germ cell mutagenicity. Based on available data, the classification criteria are not met.
- Carcinogenicity. Based on available data, the classification criteria are not met.
- Reproductive toxicity. Based on available data, the classification criteria are not met.
- STOT (Specific target organ toxicity)-single exposure. Based on available data, the classification criteria are not met.
- STOT (Specific target organ toxicity)-repeated exposure. Based on available data, the classification criteria are not met.
- Aspiration hazard. Based on available data, the classification

criteria are not met.

12. Ecological information

12.1. Toxicity

Aquatic toxicity	
9002-93-1	Polyethylene glycol octylphenol ether
EC50	26 mg/l (Daphnia)

12.2. **Persistence and degradability.** No further relevant information available.

12.3. **Bioaccumulative potential.** No further relevant information available.

12.4. **Mobility in soil.** No further relevant information available.

- **Ecotoxicological effects.** Remark: Harmful to fish
- **Additional ecological information.** General notes. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Harmful to aquatic organisms.
- **Results of PBT and vPvB assessment**
- **PBT.** Not applicable.
- **vPvB.** Not applicable.

12.5. **Other adverse effects.** No further relevant information available.

13. Disposal considerations

13.1. Waste treatment methods

- **Recommendation.** Observe all federal, state and local environmental regulations when disposing of this material.

Uncleaned packaging

- **Recommendation.** Disposal must be made according to official regulations.
- **Recommendation cleansing agents.** Water, if necessary together with cleansing agents.

14. Transport information

14.1. UN-Number

- **ADR/ADN, IMDG, IATA** Non-Regulated Material.

14.2. UN proper shipping name

- ADR/ADN, IMDG, IATA Non-Regulated Material.

14.3. **Transport hazard class(es)**

- ADR/ADN, ADN, IMDG, IATA



- Class. Non-Regulated Material.

14.4. **Packing group**

- ADR/ADN, IMDG, IATA Non-Regulated Material.

14.5. **Environmental hazards.** Not applicable.

14.6. **Special precautions for user** Not applicable.

14.7. **Transport in bulk according to Annex II of**

- Marpol and the IBC Code Not applicable.
- UN "Model Regulation". Non-Regulated Material.

15. Regulatory information

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

Poisons Act - Schedule 1		
593-84-0	guanidinium thiocyanate	29339990

Poisons Act - Schedule 2, Group II
None of the ingredients are listed.

Health Products Act - First Schedule- Psychotropic Substances
None of the ingredients are listed.

- Directive 2012/18/EU. Substance is not listed.
- Named dangerous substances - ANNEX I. None of the ingredients are listed.

LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)		
9002-93-1	Polyethylene glycol octylphenol ether	Sunset date: 2021-01-04

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients are listed.

- REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients are listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients are listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients are listed.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

- Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

9002-93-1	Polyethylene glycol octylphenol ether
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15.2. **Chemical safety assessment.** A chemical safety assessment has not been carried out.

16. Other information

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.

16.1. Relevant phrases

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.

- H330 Fatal if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

16.2. **Abbreviations and acronyms.** Refer to page 32.

C. SDS for RNA Elution Buffer

1. Identification

1.1. Product identifier

- Trade name. RNA Elution Buffer
- REACH Registration number. Not relevant.

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

- Product category. The RNA Elution Buffer is for use with the X8 Cellular RNA Cartridge Kit. Optimized for the elution of total RNA from specified sample types.

1.3. Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008. The product is not classified, according to the CLP regulation.

1.4. Label elements

- Labeling according to Regulation (EC) No 1272/2008. Non-Regulated Material.
- Hazard pictograms. Non-Regulated Material.
- Signal word. Non-Regulated Material.
- Hazard statements. Non-Regulated Material.
- Additional information. This value refers to knowledge of known, established toxicological or ecotoxicological values. 0% of the mixture consists of component(s) of unknown toxicity. Contains 0% of components with unknown hazards to the aquatic environment.

2. Hazard identification




2.1. **Other hazards.** None known

- Results of PBT and vPvB assessment.
 PBT. Not applicable.
 vPvB. Not applicable.

3. Composition/ information on ingredients

3.1. **Chemical characterization.** Mixtures

- **Description.** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
497-19-8	Sodium carbonate	<0.1%
	 Eye Irrit. 2A, H319	
593-84-0	Guanidine thiocyanate	<0.1%
	 Eye Irrit. 2A, H315, H319, 4; H302, 3; H335	
	Ethylenediaminetetraacetic acid disodium salt solution	<0.1%
	 Eye Irrit. 2A, H315, H319, H373	

- **Additional information.** For the wording of the listed hazard phrases refer to section 16.

4. First-aid measures

4.1. **Description of first aid measures**

- **General information.**
If symptoms persist, call a physician.
- **After inhalation.**
Supply fresh air; consult doctor in case of complaints.
- **After skin contact.**
Wash with soap and water. If skin irritation occurs, consult a doctor.
- **After eye contact.**
If eye irritation occurs, consult a doctor. Rinse opened eye for several minutes under running water.
- **After swallowing.**
Rinse mouth with water. If swallowed and symptoms occur, consult a doctor.

4.2. **Most important symptoms and effects, both acute and delayed.** No further relevant information available.

4.3. **Indication of any immediate medical attention and special treatment needed.** No further relevant information available.

5. Fire-fighting measures

5.1. **Extinguishing media.**

- **Suitable extinguishing agents.**
Use water spray, dry chemical powder, carbon dioxide or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents.**
No further relevant information.
- **Special hazards arising from the substance or mixture.**
Carbon oxides, nitrogen oxides, Sulphur oxides.

5.2. **Advice for firefighters.**

- **Protective equipment.** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear to prevent contact with skin and eyes.

6. Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures.** Prevent skin/eye contact. Use personal protective equipment. Ensure adequate ventilation.

6.2. **Environmental precautions.** Do not allow material into sewers and drainage systems.

6.3. **Methods and material for containment and cleaning up.** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.

6.4. **Reference to other sections.**

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7. Handling & storage

7.1. **Precautions for safe handling.** Prevent skin/eye contact. Use personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

- Information about fire and explosion protection. No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Storage

- Requirements to be met by storerooms and receptacles. Store in tightly closed container between 15 °C - 30 °C.
- Information about storage in one common storage facility. Not required.

7.3. Specific end use(s). No further relevant information available.

7.4. Control parameters

- Additional information about design of technical facilities. No further data; see item 7.
- Ingredients 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 valid during the making were used as basis.

7.5. Exposure controls

- Personal protective equipment. Protective clothing.
- General protective and hygienic measures. The usual precautionary measures are to be adhered to when handling chemicals. Wash hands before breaks and at the end of work.
- Respiratory protection. Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



- Protection of hands. Protective 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.

- Penetration time of glove material. The exact break through time

8. Exposure controls / personal protection

has to be found out by the manufacturer of the protective gloves and has to be observed.



- Eye protection. Goggles recommended during refilling.

7.6. **Environmental exposure controls.** Keep away from drains, surface and ground waters. Avoid release into the environment.

9. Physical & chemical properties

8.1. Information on basic physical and chemical properties

General Information

- Appearance

Form.	Liquid.
Colour.	Clear.
- Odour. Odorless.
- pH-value. 10.75 - 11.35 (at 25 °C)
- Change in condition

Melting point/freezing point.	Not determined.
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- Flash point. Not applicable.
- Flammability (solid, gas). Not applicable.
- Ignition temperature. Not applicable.
- Decomposition temperature. Not determined.
- Auto-ignition temperature. Not determined.
- Explosive properties. Not determined.
- Explosion limits

Lower.	Not determined.
Upper.	Not determined.
- Vapour pressure. Not determined.
- Density. Not determined.
- Relative density. Not determined.
- Vapour density. Not determined.

- Evaporation rate. Not determined.
- Solubility in / Miscibility with water. Not determined.
- Partition coefficient.
n-octanol/water. Not determined.
- Viscosity.
Dynamic. Not determined.
Kinematic. Not determined.
- Solvent content.
VOC content. Not determined.
- Other information. No further relevant information available.

10. Stability & reactivity

- 9.1. **Reactivity.** No further relevant information available.
- 9.2. **Chemical stability.** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided.**
No decomposition if used according to specifications.
- 9.3. **Possibility of hazardous reactions.** No dangerous reactions known.
- 9.4. **Conditions to avoid.** No further relevant information available.
- 9.5. **Incompatible materials.** Strong oxidizing agents.
- 9.6. **Hazardous decomposition products.** Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

11. Toxicological information

- 10.1. **Information on toxicological effects**
- **Acute toxicity.** Based on available data, the classification criteria
 - **LD/LC50 values relevant for classification.** No data available.
- Primary irritant effect
- **Skin corrosion/irritation.** Based on available data, the classification criteria are not met.
 - **Serious eye damage/irritation.** Based on available data, the classification criteria are not met.
 - **Sensitization.** Based on available data, the classification criteria

- are not met.

Additional toxicological information.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction).

- **Germ cell mutagenicity.** Based on available data, the classification criteria are not met.
- **Carcinogenicity.** Based on available data, the classification criteria are not met.
- **Reproductive toxicity.** Based on available data, the classification criteria are not met.
- **STOT (Specific target organ toxicity)-single exposure.** Based on available data, the classification criteria are not met.
- **STOT (Specific target organ toxicity)-repeated exposure.** Based on available data, the classification criteria are not met.
- **Aspiration hazard.** Based on available data, the classification criteria are not met.

12. Ecological information

11.1. Toxicity.

- **Aquatic toxicity.** No further relevant information available.
- **Persistence and degradability.** No further relevant information available.

11.2. **Bioaccumulative potential.** No further relevant information available.

11.3. **Mobility in soil.** No further relevant information available.

- **Additional ecological information.**
- **General notes.** Not hazardous for water.

11.4. Results of PBT and vPvB assessment

- **PBT.** Not applicable.
- **vPvB.** Not applicable.

11.5. **Other adverse effects.** No further relevant information available.

13. Disposal considerations

12.1. Waste treatment methods

- Recommendation. Observe all federal, state and local environmental regulations when disposing of this material.

Uncleaned packaging

- Recommendation. Disposal must be made according to official regulations.

14. Transport information

13.1. UN-Number

- ADR/ADN, IMDG, IATA Non-Regulated Material.

13.2. UN proper shipping name

- ADR/ADN, IMDG, IATA Non-Regulated Material.

13.3. Transport hazard class(es)

- ADR/ADN, ADN, IMDG, IATA
- Class. Non-Regulated Material.

13.4. Packing group

- ADR/ADN, IMDG, IATA Non-Regulated Material.

13.5. Environmental hazards. Not applicable.

13.6. Special precautions for user Not applicable.

13.7. Transport in bulk according to Annex II of

- Marpol and the IBC Code Not applicable.
- UN "Model Regulation". Non-Regulated Material.

15. Regulatory information

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

Poisons Act - Schedule 1
None of the ingredients are listed.

Poisons Act - Schedule 2, Group II
None of the ingredients are listed.

Health Products Act - First Schedule- Psychotropic Substances
None of the ingredients are listed.

- Directive 2012/18/EU. Substance is not listed.
- Named dangerous substances - ANNEX I. None of the ingredients are listed.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients are listed.

- REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients are listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients are listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients are listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients are listed.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

14.2. **Chemical safety assessment.** A chemical safety assessment has not been carried out.

16. Other information

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.

15.1. Relevant phrases

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

- H330 Fatal if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs.

15.2. Abbreviations and acronyms.

- **ADR.** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
- **ADN.** The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- **IMDG.** International Maritime Code for Dangerous Goods.
- **IATA.** International Air Transport Association.
- **GHS.** Globally Harmonized System of Classification and Labeling of Chemicals.
- **EINECS.** European Inventory of Existing Commercial Chemical Substances.
- **ELINCS.** European List of Notified Chemical Substances.
- **CAS.** Chemical Abstracts Service (division of the American Chemical Society).
- **VOC.** Volatile Organic Compounds (USA, EU).
- **LC50.** Lethal concentration, 50 percent.
- **LD50.** Lethal dose, 50 percent.
- **PBT.** Persistent, Bioaccumulative and Toxic.
- **vPvB.** very Persistent and very Bioaccumulative.
- **Eye Irrit 2.** Serious eye damage/eye irritation – Category 2A.

*Data compared to the previous version altered.

Safety Data Sheet prepared in accordance with SS 586 Part 3.

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