Canvax Reagents, S.L.
Luis de Mercado Street, 19
Boecillo Technological Park
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Tlf: +34 983 54 85 63
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MATERIAL SAFETY DATA SHEET
HigherPurity™ Total RNA Extraction Kit

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. PRODUCT DETAILS

Trade Name: HigherPurity™ Total RNA Extraction Kit

Catalog Number: AN0280, AN0280-XL

1.2. COMPANY DETAILS

Supplier: Canvax Reagents S.L., Luis de Mercado St. 19, Boecillo Technological Park, Valladolid (Spain)

1.3. EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: +34 931768545

2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification (67/548/CEE) or (1999/45/CE):

Acute oral toxicity (Category 4)	H302: Harmful if swallowed.
Skin irritation (Category 2)	H315: Causes skin irritation.
Eye irritation (Category 2)	H319: Causes serious eye irritation
Skin burns/eye damage (Category 1)	H314: Causes severe skin burns and eye damage.
Aquatic Chronic (Category 3)	H412: Harmful to aquatic life with long lasting effects.

Physical Hazards: Not classified.

Health Hazards: See section 2.2.

Environmental Hazards: Aquatic Chronic 3 (H412)..

2.2. LABEL ELEMENTS



H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.

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2.3. PREVENTIVE ADVICE

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/ hearing protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/attention.

2.4. OTHER HAZARDS

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. CHEMICAL CHARACTERIZATION

Mixtures

Product	Substance	CAS-no.	Weight %	Classification
RNA Buffer Lysis	Guanidinium thiocyanate	593-84-0	20 - 50	Acute oral Tox. 4 - H302 Skin Irrit/Eye Irrit. 1 - H314 Aquatic Chronic 3 - H412
RNA Wash Buffer 1	Guanidine hydrochloride	50-01-1	36 - 50	Acute oral Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
RNA Wash Buffer 2	Contains no hazardous substances in concentrations to be declared.			
RNase-free ddH2O	Contains no hazardous substances in concentrations to be declared.			

4. FIRST AID MEASURES

4.1. DESCRIPTION OF DIRTS AID MEASURES

Inhalation: After inhalation: fresh air. If breathing stops mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call-in physician.

Ingestion: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician

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Skin contact: After skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

Eye contact: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Not Applicable.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

None.

5. FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Extinguishing media: water foam carbon dioxide (CO2) dry powder; All extinguishers can be used.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Not known

5.3. ADVICE FOR FIRE FIGHTERS

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See section 8 for more information.

6.2. ENVIRONMENTAL PRECAUTIONS

No special environmental precautions required.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

No restriction on absorbent material. Sweep up spilled solids carefully. Dilute spilled liquids with plenty of water and adsorb.

6.4. REFERENCE TO OTHER SECTIONS

See section 8 for more information.

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Liquid is not inflammable and not combustible. Use personal protective equipment as required. Open and handle vessels carefully. No special handling advices are necessary.

7.2. CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITIES

Keep in a dry, cool, and well-ventilated place.

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7.3. SPECIFIC END USE(S)

For research use only. Not for diagnostic use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

Contains no substances with occupational exposure limit values.

8.2. EXPOSURE CONTROLS

Special protective equipment



Eye/face protection: Tight sealing safety goggles.

Hand protection: Wear suitable one-way gloves: compatible chemical-resistant gloves. Wash hands before breaks and at the end of workday.

Other skin and body protection: Wear suitable protective clothing. Wear rubber footwear.

Respiratory protection: No personal respiratory protective equipment normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. BASIC INFORMATION ON PHYSICAL AND CHEMICAL PROPERTIES

Substance	Appearance	Colour	Odour	Solubility	pH	Relative Density
RNA Buffer Lysis	Liquid	Not available	Odourless	Not available	7.0 – 7.5	Not available
RNA Wash Buffer 1	Liquid	Not available	Odourless	Not available	4.0 – 4.5	Not available
RNA Wash Buffer 2	Liquid	Not available	Odourless	Not available	8.0 - 8.8	Not available
RNA Elution Buffer	Liquid	Clear	Odourless	Not available	4.0 - 5.5	Not available

9.2. OTHER INFORMATION

Not determinated.

10. STABILITY AND REACTIVITY

10.1. REACTIVITY

No hazardous reactions are expected because the product is stable under recommended storage conditions.

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10.2. CHEMICAL STABILITY

Stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

RNA Buffer Lysis and Wash Buffer 1 contain guanidinium salts which can form highly reactive compounds when combined with bleach. DO NOT add bleach or acidic solutions directly to the preparation waste.

10.4. CONDITIONS TO AVOID

No information available.

10.5. INCOMPATIBLE MATERIALS

Avoid strong acids. Avoid alkalis or strong bases.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

No data available.

11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

No acute toxicity information is available for this product.

Acute toxicity:

- Guanidine hydrochloride
  Acute oral toxicity (LD50): 907 mg/kg (Mouse)
  Acute dermal toxicity (LD50): 2000 mg/kg (Rabbit)
  Lowest published lethal dose: LDL (Human) Oral route: no data available.
- Guanidine thiocyanate
  Acute oral toxicity (LD50): 1,578 mg/kg (Rat)
  Acute dermal toxicity (LD50): 2,926 mg/kg (Rat/Rabbit)
  Lowest published lethal dose: LDL (Human) Oral route: no data available.

Primary irritant effect:

- On the skin: Skin irritation
- On the eye: Causes eye damage.

Additional toxicological information:

Toxicological Information Service:

European emergency number: 112

Spain:

- CHEMTREC 900-868538
- CHEMTREC (Barcelona) +(34)-931768545

12. ECOLOGICAL INFORMATION

Ecotoxicity: Contains no substances known to be hazardous to the environment or not degradable in wastewater treatment plants.

Note: Hazard class 1, slightly hazardous to water and ground.

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12.1. TOXICITY

It is not considered toxic to fish.

12.2. PERSISTENCE AND DEGRADABILITY

There are no data on the degradability of this product.

12.3. BIOACCUMULATION POTENTIAL

No data on bioaccumulation.

12.4. MOBILITY IN THE SOIL

No information available.

12.5. PBT AND vPvBm ASSESSMENT RESULTS

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. OTHER ADVERSE EFFECTS

Not determined.

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

General information: Waste should be treated as hazardous waste. Dispose of waste to an authorized landfill in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods: Used reagent can be disposed of in the wastewater in accordance with local regulations. Dispose of empty packs by local recycling or waste disposal routes, if necessary, clean them beforehand.

14. TRANSPORT INFORMATION

14.1. UN-NUMBER

No information required.

14.2. UN PROPER SHIPPING NAME

No information required.

14.3. TRANSPORT HAZARD CLASS(ES)

No information required.

14.4. PACKAGING GROUP

No information required

14.5. ENVIRONMENTAL HAZARDS

Hazardous pollutant substance/marine pollutant: No.

14.6. SPECIAL PRECAUTIONS FOR USER

Not Applicable.

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14.7. TRANSPORT IN BULK ACCORDING TO ANNEX II MARPOL73/78 AND THE IBC CODE

No information required.

15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

National Provisions: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU Legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures (as amended).

Guidance: CHIP for everyone HSG228. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. CHEMICAL SAFETY ASSESSMENT

Any chemical safety assessment has been carried out.

16. OTHER INFORMATION

Revision comments: Lines within the margin indicate significant changes from the previous revision.

Revision Date: 27/06/2024

Revision: 01

Date of replacement: No previous revision.