

# Material Safety Data Sheet

Date of Preparation: 9/3/04

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## **Section 1 – Product and Company Information**

### **Trade Name: RNA Lysis Solution (Total RNA Isolation Kit)**

**Synonyms:** Total RNA Isolation Kit RNA Lysis Solution

Cartagen Molecular Systems, Inc.  
1102 Columbia Street, Suite 410  
Seattle, WA 98104  
Telephone Number for Information: (206) 624-0940  
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## **Section 2 - Composition / Information on Ingredients**

*Aqueous solution of proprietary compound mixture.*

### **Hazardous Compounds**

*Thiocyanate Compounds*

CAS No. Proprietary

Percentage: 30-60%

## **Section 3 - Hazards Identification**

### **Emergency Overview**

Irritant. Harmful if swallowed. Harmful by inhalation.

**Target Organs:** Kidneys, liver, lungs, nervous system, respiratory tract.

### **Potential Health Effects**

**Eye:** Can cause minor irritation, tearing and reddening.

**Skin:** Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. May cause sensitization.

**Ingestion:** Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. Harmful if swallowed. May cause systemic poisoning.

**Inhalation:** Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Harmful! Can cause systemic damage.

**Chronic:** Not available.

## **Section 4 - First Aid Measures**

**In case of eye contact:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**In case of skin contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**If ingested:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute.

**If inhaled:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

## **Section 5 - Fire Fighting Measures**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic

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gases may be generated by thermal decomposition or combustion. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid. Use water spray/fog for cooling.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available  
**Upper:** Not available

## **Section 6 - Accidental Release Measures**

**General:** Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to Section 8 for personal protection equipment recommendations.

**Spills/Leaks:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## **Section 7 - Handling and Storage**

**Handling:** Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Keep closed or covered when not in use.

**Storage:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Suitable for most general chemical storage areas.

## **Section 8 - Exposure Controls / Personal Protection**

**Engineering Controls:** Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

**Exposure Limits:** Not established

### **Personal Protective Equipment**

**Eyes:** An eye wash station must be available where this product is used. Wear chemical goggles.

**Skin:** Prevent contact with this product. Wear protective gloves, apron, face and further skin protection depending upon condition of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment thoroughly after each use. Do not wear surgical style latex gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

## **Section 9 - Physical and Chemical Properties**

**Physical State:** Liquid

**Odor:** Odorless

**Evaporation Rate:** Not established

**Solubility:** Soluble in water

**Appearance:** Colorless

**Vapor Pressure:** Not established

**Viscosity:** Not established

**Specific Gravity/Density:** Not established

## **Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Excessive heat in combination with sparks, open flames, or other sources of ignition.

**Incompatibilities:** Strong oxidizing agents, metals (ferrous).

**Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, nitrogen oxides, sulfur

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containing gases, toxic gases, hydrogen cyanide.

**Hazardous Polymerization:** Will not occur.

## **Section 11 – Toxicological Information**

LD50/LC50: Not determined

Carcinogenicity: Not determined

## **Section 12 - Ecological Information**

No data available.

## **Section 13 - Disposal Considerations**

Dispose of container, used, and unused contents in accordance with federal, state, or local requirements.

## **Section 14 – Transport Information**

DOT:

Proper Shipping Name: None

Non-hazardous for transport

IATA: Non-hazardous for transport

## **Section 15 – Regulatory Information**

**UNITED STATES:**

**TSCA:** This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.

**Prop 65 Listed Chemicals:**

No Prop 65 Chemicals

No 313 Chemicals

**PROP 65**

**PERCENT**

**CANADA:**

**DSL/NDSL:** Not determined.

**COMPONENT**

THIOCYANATE COMPOUNDS

**WHMIS Classification**

D1B D2B

**EUROPEAN UNION:**

**PRODUCT RISK PHRASES:** None assigned.

**PRODUCT SAFETY PHRASES:** Not applicable.

**PRODUCT CLASSIFICATION:** Xi

**Component**

THIOCYANATE COMPOUNDS

**EINECS Number**

Not established

## **Section 16 – Other Information**

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