

# Material Safety Data Sheet

Date of Preparation: 2/17/05

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

**Trade Name: Binding Buffer (mRNA Isolation Kit)**

**Synonyms: mRNA Binding Buffer**

Cartagen Molecular Systems, Inc.

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## **Section 2 - Composition / Information on Ingredients**

*Aqueous solution of proprietary compound mixture.*

Hazardous compounds:

*Name: Sodium Chloride*

CAS No. 7647-14-5

Percentage: 1 - 5

## **Section 3 - Hazards Identification**

### **Emergency Overview**

Caution! Irritant.

### **Potential Health Effects**

**Eye:** Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

**Skin:** Can cause minor skin irritation, defatting, and dermatitis.

**Ingestion:** Mildly irritating to mouth, throat, and stomach. Can cause abdominal discomfort.

**Inhalation:** Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.

No toxicity expected from inhalation.

**Chronic:** No data on cancer.

## **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. Provide medical care provider with this MSDS.

**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.

**Note To Physician:** Treat symptomatically.

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

**General Information:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

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Hazardous Combustion Products: Includes carbon dioxide, carbon monoxide, dense smoke.

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical 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 surface of the fire. Do Not direct a stream of water 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 Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Exposure to the spilled material may be irritating or harmful. 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.

Storage Pressure: Ambient

## 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:**

OSHA PEL AGCIH TWA

Component (ppm) (ppm)

SODIUM CHLORIDE Not established.

### **Personal Protective Equipment**

**Eyes:** Safety glasses should be the minimum eye protection. Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

**Skin:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Gloves should be used as minimum hand protection.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**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 solution

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**Appearance:** Colorless

**Odor:** None

**Vapor Pressure:** Not established.

**Vapor Density:** Not established.

**Evaporation Rate:** Not established.

**Viscosity:** Not established.

**Decomposition Temperature:** Not established.

**Specific Gravity/Density:** Not established.

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

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

**Conditions to Avoid:** Strong oxidizers.

**Hazardous Decomposition Products:** Chlorinated compounds.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## **Section 11 – Toxicological Information**

### **Acute Toxicity:**

Dermal/Skin: Not determined.

Inhalation/Respiratory:

Not determined.

Oral/Ingestion: Not determined.

Target Organs: No data found.

### **Carcinogenicity:**

NTP: Not tested.

IARC: Not listed.

OSHA: Not regulated.

## **Section 12 - Ecological Information**

Ecotoxicological Information: No ecological information available.

Environmental Fate (Degradation, Transformation, and Persistence): Bioconcentration is not expected to occur. Does not biodegrade readily.

## **Section 13 - Disposal Considerations**

Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.

## **Section 14 – Transport Information**

DOT:

Proper Shipping Name: Not determined.

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: PROP 65 PERCENT

No Prop 65 Chemicals.

No 313 Chemicals

CANADA:

DSL/NDSL: Not determined.

COMPONENT WHMIS Classification

SODIUM CHLORIDE D2B

EUROPEAN UNION:

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PRODUCT RISK PHRASES: None assigned.  
PRODUCT SAFETY PHRASES: Not applicable.  
PRODUCT CLASSIFICATION: Not classified as hazardous  
EINECS  
Component Number  
SODIUM CHLORIDE 231-598-3

## **Section 16 – Other Information**

Disclaimer: For R&D use only. Not for drug, household or other uses.

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