

# Material Safety Data Sheet

**ArcPure™ Viral RNA Wash Buffer**

Version: Original

Revision Date: October 8, 2009



## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ArcPure™ Viral RNA Wash Buffer**

Company: 6920 Koll Center Parkway  
Suite 215  
Pleasanton, CA 94566

Telephone Number: 925-621-7951

Emergency Phone Number: 911

## 2. COMPOSITION/INFORMATION ON COMPONENTS

### Chemical Characterization

- Description: Mixture of Substances listed below with non hazardous additions.
- Dangerous Components:

Guanidine Hydrochloride	CAS# 50-01-1	3 - 10 %
Tris-HCl	CAS# 77-86-1	0.5 - 5 %
EDTA	CAS# 6381-92-6	0.5 - 5 %

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

**Appearance/Odor:** Clear Liquid

**Warning:** Harmful if swallowed or inhaled. Causes irritation of the skin, eyes, and respiratory tract.

**HMIS Classification** (scale 0-4)

**Health Hazard:** 2

**Flammability:** 0

**Physical hazards:** 0

**NFPA Rating** (scale 0-4)

**Health Hazard:** 2

**Fire :** 0

**Reactivity Hazard:** 0

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**Potential Health Effects – See Section 11 for more information**

## Likely Routes of Exposure

Inhalation, Skin Contact, Eye Contact, Ingestion

### Inhalation

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

### Ingestion

Toxic. May cause neurological disturbances. Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

### Skin Contact

Causes irritation to skin. Symptoms include redness, itching, and pain.

### Eye Contact

Causes irritation, redness, and pain.

### Chronic Exposure:

No information available.

### Aggravation of Pre-existing Conditions:

May cause more significant skin irritation in people with pre-existing skin conditions.

## 4. FIRST AID MEASURES

### General advice

Call a physician. Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air.  
If not breathing give artificial respiration, give oxygen.  
Call a physician.

### If swallowed

Rinse mouth with water, provided person is conscious.  
Never give anything by mouth to an unconscious person.  
Call a physician.

### In case of eye contact

Rinse eyes thoroughly with plenty of water for at least 15 minutes.  
Call a physician.

### In case of skin contact

Wash off with soap and plenty of water.  
Remove contaminated clothing and shoes.  
Call a physician.

## 5. FIRE-FIGHTING MEASURES

### Flammable properties

Flash point: N/A  
Ignition temperature: N/A  
Flammability: N/A

### Suitable extinguishing media

Suitable: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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## Special protective equipment for fire-fighters

Specific Hazard(s): Emits toxic fumes under fire conditions

Wear self contained breathing apparatus for fire fighting to prevent inhalation and contact.

## 6. ACCIDENTAL RELEASE MEASURES

### Leak or Spill:

Evacuate area.

Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

### Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

### Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

Ventilate area and wash site after completion of material pickup.

## 7. HANDLING AND STORAGE

### Handling

Avoid inhalation of vapor or mist.

Avoid contact with eyes, skin, and clothing.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

### Storage

Keep container tightly closed in a dry and well-ventilated place.

Do not store close to acids.

### Special Requirements

Light sensitive

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Facility storing and utilizing this material should be equipped with an eyewash facility. Use adequate ventilation to keep airborne concentration low.

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges.

#### Hand protection

Handle with gloves.

#### Eye protection

Safety glasses

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## Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

## Hygiene measures

Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form: Liquid, Clear  
Color: Colorless

### Safety Data

pH	7.5
Melting point	N/A
Boiling point	N/A
Flash point	N/A
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	Fully miscible

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Conditions to avoid

Light

### Materials to avoid

Strong acids, oxidizing agents  
Copper, brass, aluminum

### Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Sulfur Oxides, Hydrogen Cyanide, Ammonia.

### Hazardous reactions

Polymerization: will not occur.

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## 11. TOXICOLOGICAL INFORMATION

Toxicity data for Guanidine Hydrochloride

Oral LD50 mouse 571mg/kg (Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 12, Pg. 598, 1993).

Oral LD50 rat 475mg/kg (National Technical Information Service. Vol. AD-A165-747).

Investigated as a mutagen.

### Route Of Exposure:

Skin Contact: May cause skin irritation

Skin Absorption: Harmful if absorbed through skin

Eye Contact: May cause eye irritation

Inhalation: Harmful if inhaled

Ingestion: Harmful if swallowed

### Signs and Symptoms Of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Do not allow product to get into ground water or sewage system.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### DOT (US)

UN-Number: 3082	Class: 9	Packing group: III	
Proper shipping name: Environmentally hazardous substances, liquid, n.o.s. (Guanidine Hydrochloride)			
Note: Container sizes of 30 ml or less qualify for the Small Quantity Exceptions under Title 49 of the Code of Federal Regulations, §173.4(a).			

### IMDG

UN-Number: 3082	Class: 9	Packing group: III	
Proper shipping name: Environmentally hazardous substances, liquid, n.o.s. (Guanidine Hydrochloride)			
Note: Container sizes of 30 ml or less qualify as "Dangerous Goods in Excepted Quantities" under Chapter 3.5 of the International Maritime Dangerous Goods Code.			

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## IATA

UN-Number: 3082	Class: 9	Packing group: III	
Proper shipping name: Environmentally hazardous substances, liquid, n.o.s. (Guanidine Hydrochloride)			
Note: Container sizes of 30 ml or less qualify as "Dangerous Goods in Excepted Quantities" under Chapter 2.7 of the International Air Transport Associations Dangerous Goods Regulations.			

## 15. REGULATORY INFORMATION

### OSHA Hazards

Indication of Danger: Harmful.

Risk Statements: Harmful by inhalation, in contact with skin and if swallowed.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements: Keep away from food, drink, and animal feeding stuffs.

Avoid release to the environment. Refer to special instructions/safety data sheets.

### TSCA Status

TSCA Inventory Item: Yes

### SARA Status:

SARA 302 Listed: No

SARA 313 Listed: No

SARA 311/312: Acute Health hazard

### California Prop. 65 Status:

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## 16. OTHER INFORMATION

### Disclaimer:

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

### Further information

License granted to make unlimited paper copies for internal use only.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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