

# Safety Data Sheet

## Reaction Buffer

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Reaction Buffer

**Catalog Numbers:** RS-1, RS-5, RS-11

**Synonyms:** None

**Company Identification:**

Sportsman Consulting LLC DBA Vinmetrica 1945 Camino Vida Roble – I, Carlsbad, CA

**For information, call:** 760-494-0597

Use: For use in testing and analysis. Not for human or animal use.

### Section 2 - Hazards Identification

#### 2.1 Classification of the substance

Not a hazardous substance or mixture

#### 2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

#### 2.3 Adverse Human Health effects and Symptoms:

May be irritating to the mucous membrane and upper respiratory tract. May be harmful by inhalation, ingestion or skin absorption. May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7732-18-5	Water	98.4
126-96-5	Tris (hydroxymethyl) aminomethane	0.1
13446-34-9	Manganese (II) chloride tetrahydrate	0.4
42373-41-1	Adenosine-5'-triphosphate disodium salt	1.1

Appearance: Yellow solution.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Flush skin with plenty of water. Get medical aid if irritation develops or persists.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do not induce vomiting without medical advice.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

## 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.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**Flash Point:** Non-flammable.

**Autoignition Temperature:** Not applicable.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

## Section 7 - Handling and Storage

**Handling:** Wash hands before eating. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing.

**Avoid inhalation of vapor or mist.**

Avoid ingestion and inhalation.

**Storage** Store in a freezer at -5 to -20C.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH OSHA
Manganese chloride	TWA 0.2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup> ceiling
Adenosine-5'-triphosphate disodium salt	none listed	none listed
Tris (hydroxymethyl) aminomethane	none listed	none listed

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

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

Wash hands thoroughly after handling.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear, light yellow

**Odor:** none reported  
**pH:** 8.2-8.4  
**Vapor Pressure:** NA  
**Vapor Density:** NA  
**Evaporation Rate:** Not available.  
**Viscosity:** Not available.  
**Boiling Point:** Not available.  
**Freezing/Melting Point:** Not available.  
**Decomposition Temperature:** Not available.  
**Solubility:** Soluble in water.  
**Specific Gravity/Density:** NA  
**Molecular Formula:** Mixture  
**Molecular Weight:** Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under recommended storage conditions.  
**Conditions to Avoid:** NA  
**Incompatibilities with Other Materials:** NA  
**Hazardous Decomposition Products:** NA  
**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity**

no data available

**Inhalation: no data available**

Dermal: no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available.

**Environmental:** No information available.

**Physical:** No information found.

## Section 13 - Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

## Section 14 - Transport Information

**US DOT, Canada TDG:**

Not regulated as a hazardous material

## Section 15 - Regulatory Information

Not listed

**California Prop. 65 Components**

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

## Section 16 - Additional Information

**MSDS Creation Date:** 09-10-14

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