



**Simple Solution for Your Research**

**Hito Buffered 4% Paraformaldehyde Solution  
in PBS**

**[Catalog Number: HTSHS0110]**

**Material Safety Data Sheet**

**FOR IN VITRO RESEARCH USE ONLY**

**Hitobiotec Inc.**



# Material safety data sheet (MSDS)

Date Updated: 11/12/2013

Version 1.9

## 1. Product and Company Information

**Product Name** Hito Buffered 4% Paraformaldehyde Solution in PBS  
**Product Number** HTSHS0110  
**Brand** Hitobiotec  
**Company Address** Hitobiotec Inc.  
P.O.Box 7671  
Wilmington, DE 19803  
USA  
**Technical Phone:** 302-385-6188  
**Emergency Phone:** 302-385-6188

## 2. Composition and Information on Ingredient

<b>Substance Name</b>	<b>CAS #</b>	<b>SARA 313</b>
Hito Buffered 4% Paraformaldehyde Solution	None	No

<b>Ingredient Name</b>	<b>CAS #</b>	<b>SARA 313</b>
WATER	7732-18-5	No
Paraformaldehyde	30525-89-4	No
Sodium phosphate dibasic	7558-79-4	No
Sodium phosphate monobasic	7558-80-7	No
Sodium chloride	7647-14-5	No

## 3. Hazards Identification

### EMERGENCY OVERVIEW

May be harmful if inhaled. May cause respiratory tract irritation, May cause an allergic skin reaction, May cause eye irritation, May be harmful if swallowed

**HMIS RATING**

HEALTH: 2                      FLAMMABILITY: 0                      REACTIVITY: 0

**NFPA RATING**

HEALTH: 2                      FLAMMABILITY: 0                      REACTIVITY: 0

**Potential Health Effects**

Inhalation                      May be harmful if inhaled. May cause respiratory tract irritation

Skin                              May cause an allergic skin reactio

Eyes                              May cause eye irritation

Ingestion                      May be harmful if swallowed

## 4. FIRST AID MEASURES

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

**Flammable properties**

Flash point                              no data available

Ignition temperature                      no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant form, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### **Environmental precautions**

Do not let product enter drains.

### **Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### **Handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

### **Storage**

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

no data available

### **Personal protective equipment**

#### **Respiratory protection**

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 as a backup to engineering controls. 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).

#### **Hand protection**

Handle with gloves.

#### **Eye protection**

Safety glasses with side-shields conforming to EN166

#### **Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Form liquid

**Safety data**

pH no data available  
Melting point no data available  
Boiling point no data available  
Flash point no data available  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Water solubility no data available

## 10. STABILITY AND REACTIVITY

**Storage stability**

Stable under recommended storage conditions.

**Materials to avoid**

Strong oxidizing agents, flames and sparks.

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity** Refer to component MSDS

**Irritation and corrosion** Refer to component MSDS

**Sensitisation** Refer to component MSDS

**Signs and Symptoms of Exposure**

no data available

**Potential Health Effects**

**Inhalation** Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Vapours may cause drowsiness and dizziness. .

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Eye Damage/Irritation.

**Ingestion** Toxic if swallowed.

## 12. ECOLOGICAL INFORMATION

### **Elimination information (persistence and degradability)**

Refer to component MSDS

### **Ecotoxicity effects**

Refer to component MSDS

### **Further information on ecology**

Refer to component MSDS

## 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)**

No applicable information.

### **IMDG**

No applicable information.

### **IATA**

No applicable information.

## 15. OTHER INFORMATION

### **Further information**

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. Hitobiotech, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See Terms & Conditions page on our website for additional terms and conditions of sale.

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