

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Total Chlorine Buffer Solution  
**Catalog Number:** 2263511

Hach Company  
P.O.Box 389  
Loveland, CO USA 80539  
(970) 669-3050

Emergency Telephone Numbers:  
(Medical and Transportation)  
(303) 623-5716 24 Hour Service  
(515)232-2533 8am - 4pm CST

**MSDS Number:** M00470  
**Chemical Name:** Not applicable  
**CAS No.:** Not applicable  
**Chemical Formula:** Not applicable  
**Chemical Family:** Not applicable  
**Hazard:** Causes burns.  
**Date of MSDS Preparation:**  
**Day:** 08  
**Month:** January  
**Year:** 2007

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

### Potassium Iodide

**CAS No.:** 7681-11-0  
**TSCA CAS Number:** 7681-11-0  
**Percent Range:** 5.0 - 15.0  
**Percent Range Units:** weight / volume  
**LD50:** Oral Mouse LD50 = 1862 mg/kg  
**LC50:** None reported  
**TLV:** Not established  
**PEL:** Not established  
**Hazard:** Causes irritation.

### Sodium Hydroxide

**CAS No.:** 1310-73-2  
**TSCA CAS Number:** 1310-73-2  
**Percent Range:** 1.0 - 5.0  
**Percent Range Units:** weight / weight  
**LD50:** Oral rat LDLo = 500 mg/kg.  
**LC50:** None reported  
**TLV:** 2 mg/m<sup>3</sup> Ceiling/STEL  
**PEL:** 2 mg/m<sup>3</sup>  
**Hazard:** Causes severe burns. Toxic.

### Demineralized Water

**CAS No.:** 7732-18-5  
**TSCA CAS Number:** 7732-18-5  
**Percent Range:** 50.0 - 60.0

**Skin Absorption:** None reported  
**Target Organs:** None reported  
**Ingestion:** Can cause: burns of the mouth and esophagus nausea vomiting abdominal pain  
**Target Organs:** None reported  
**Inhalation:** May cause: respiratory tract irritation  
**Target Organs:** None reported  
**Medical Conditions Aggravated:** Pre-existing: Eye conditions Skin conditions  
**Chronic Effects:** Iodines overdose, 'iodism', may cause skin rash, runny nose, headaches, fever and bronchitis.  
**Cancer / Reproductive Toxicity Information:**  
This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

**Additional Cancer / Reproductive Toxicity Information:** Contains: an experimental teratogen.  
Maternal ingestion of potassium iodide during pregnancy may cause congenital goiter and hyperthyroidism in the newborn infant.

**Toxicologically Synergistic Products:** None reported

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#### 4. FIRST AID

**Eye Contact:** Immediately flush eyes with water for 15 minutes. Call physician.

**Skin Contact (First Aid):** Wash skin with plenty of water for 15 minutes. Remove contaminated clothing. Call physician immediately.

**Ingestion (First Aid):** Do not induce vomiting. Give 1-2 glasses of water. Call physician immediately. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air.

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#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Can burn in fire, releasing toxic vapors.

**Flash Point:** Not applicable

**Method:** Not applicable

**Flammability Limits:**

**Lower Explosion Limits:** Not applicable

**Upper Explosion Limits:** Not applicable

**Autoignition Temperature:** Not available

**Hazardous Combustion Products:** Toxic fumes of: iodine compounds carbon monoxide, carbon dioxide.

**Fire / Explosion Hazards:** None reported

**Static Discharge:** None reported.

**Mechanical Impact:** None reported

**Extinguishing Media:** Use media appropriate to surrounding fire conditions

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

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#### 6. ACCIDENTAL RELEASE MEASURES

**Spill Response Notice:**



**Solubility:**

**Water:** Miscible

**Acid:** Miscible

**Other:** Not determined

**Metal Corrosivity:**

**Steel:** 0.010 in/yr

**Aluminum:** 29.71 in/yr

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## 10. STABILITY / REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Heat

**Reactivity / Incompatibility:** Incompatible with: acids oxidizers

**Hazardous Decomposition:** Heating to decomposition releases toxic and/or corrosive fumes of: sodium oxides iodine compounds

**Hazardous Polymerization:** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**Product Toxicological Data:**

**LD50:** None reported

**LC50:** None reported

**Dermal Toxicity Data:** None reported

**Skin and Eye Irritation Data:** None reported

**Mutation Data:** None reported

**Reproductive Effects Data:** Potassium Iodide oral human TDLo = 2700 mg/kg endocrine abnormalities in an offspring

**Ingredient Toxicological Data:** Sodium Hydroxide Oral rabbit LDLo = 500 mg/kg; Sodium Citrate Oral rat LD50 > 8 g/kg; Potassium Iodide Oral mouse LDLo = 1862 mg/kg

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** --

No ecological data available for this product.

**Ingredient Ecological Information:** --

No ecological data available for the ingredients of this product.

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## 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** None

**Special Instructions (Disposal):** Work in an approved fume hood. Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

**Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

**NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

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## 16. OTHER INFORMATION

**Intended Use:** Buffer

**References:** 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Technical Judgment. In-house information. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984.

**Revision Summary:** Updates in Section(s) 14,

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### Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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