

MATERIAL SAFETY DATA SHEET

Sulfide Buffer Solution

SECTION 1 . Product and Company Identification

Product Name and Synonym: Sulfide Buffer Solution

Product Code: 145-552

Material Uses:

Manufacturer:

OFI Testing Equipment, Inc.
11302 Steeplecrest Drive
Houston, TX 77065 USA
Phone: (713) 880-9885
Fax: (713) 880-9886

Entry Date : 5/5/2010

Print Date: 7/28/2010

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

| | | | | |
|---------------------|--------|----------------------|------|---------|
| Health: | 3 | | | |
| Flammability: | 0 | | | |
| Reactivity: | 0 | | | |
| Hazard Rating: | | | | |
| Least | Slight | Moderate | High | Extreme |
| 0 | 1 | 2 | 3 | 4 |
| NA = Not Applicable | | NE = Not Established | | |

SECTION 2 HAZARD IDENTIFICATION

Causes severe irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Emergency Overview: Danger! Corrosive. Liquid And Mist Cause Severe Burns To All Body Tissue. May Be Fatal If Swallowed Or Inhaled.

Inhalation: Corrosive! Inhalation of Vapors can cause Coughing, Choking, Inflammation, of the Nose, Throat, and Upper Respiratory Tract, and in Severe Cases, Pulmonary Edema, Circulatory Failure, and Death.

Ingestion: Corrosive! Swallowing Hydrochloric Acid can cause Immediate Pain and Burns of the Mouth, Throat, Esophagus, and Gastrointestinal Tract. May cause Nausea, Vomiting, and Diarrhea, and in Severe Cases, Death.

Skin: Corrosive! Can cause Redness, Pain, and Severe Skin Burns. Concentrated Solutions Cause Deep Ulcers and Discolor of Skin.

Eye Contact: Corrosive! Vapors are Irritating and May cause Damage to Eyes. Contact May cause Severe Burns and Permanent Eye Damage.

SECTION 3 MIXTURE COMPONENTS

| SARA 313 | Component | CAS Number | Percent Comp. | Dimension | Exposure Limits |
|-------------------------------------|-------------------------------|----------------|---------------|-----------|---|
| <input checked="" type="checkbox"/> | Hydrochloric Acid | CAS# 7647-01-0 | 10-33% | V/V | OSHA PEL (C) 5 ppm, (C) 7 mg/m ³ |
| <input type="checkbox"/> | Water, Deionized ASTM Type II | CAS# 7732-18-5 | Balance | V/V | None Established |

Chronic Exposure: Long-Term Exposure to Concentrated Vapors May cause Erosion of

Sulfide Buffer Solution

Teeth. Long-Term
Exposures Seldom Occur due to the Corrosive Properties of the Acid.

Aggravated by Exposure: Persons with Pre-Existing skin Disorders or Eye Disease May be more Susceptable to the Effects of this Substance.

SECTION 4 FIRST AID MEASURES

Causes severe irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards: Thermal decomposition produces highly toxic fumes.
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Neutralize with a weak base.
Ventilate area of Leak or Spill. Wear Appropriate Personal Protective Equipment as Specified in Section 7. Isolate Hazard Area. Keep Unnecessary and Unprotected Personnel from Entering.
Contain and Recover Liquid when Possible. Neutralize with Alkaline Material (Soda-Ash, Lime), then Absorb with an Inert Material (e.g., Vermiculite, Dry Sand, Earth), and place in a Chemical Waste Container. Do Not Use Combustable Materials, such as Saw Dust.

SECTION 7 HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator
Ventilation
Local Exhaust
Mechanical
Protective Gloves: NIOSH Approved Gloves
Eye Protection: Goggles and Face Shield

Sulfide Buffer Solution

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------|----------------------------|-----------------------------|---------------------------|
| Melting Point: | Information not available | Percent Volatile by Volume: | 100% |
| Boiling Point: | 214 - 217° F (101 - 103°C) | Evaporation Rate | Information not available |
| Vapor Pressure: | Information not available | Evaporation Standard | |
| Vapor Density: | Information not available | Auto Ignition Temp | Not applicable |
| Solubility in Water: | Soluble | Lower Flamm. Limit in Air | Not applicable |
| Appearance /Odors: | Clear liquid, odorless | Upper Flamm. Limit in Air | Not applicable |
| Flash Point: | Not applicable | | |
| Specific Gravity: | ~ 1 | | |

SECTION 10 STABILITY AND REACTIVITY INFORMATION

| | |
|-----------------------------------|---|
| Stability: | Stable |
| Conditions to Avoid: | Avoid contact with incompatible materials. |
| Materials to Avoid: | Oxidizing agents, metals, bases, cyanides sulfites, formaldehyde. |
| Hazardous Decomposition Products: | Hydrochloric acid fumes, hydrogen, chlorine, ClOx |
| Hazardous polymerization: | Will Not Occur |
| Conditions to Avoid: | None known |

SECTION 11 Toxicological Information

Hydrogen Chloride - IARC Category 3, NTP Carcinogen - Known: No

SECTION 12 Ecological Information

When Released into the Soil, this Material is Not Expected to Biodegrade. When Released into the Soil, this Material may Leach into Groundwater.

SECTION 13 Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 Transport Information

DOT Classification: Hydrochloric Acid Solution, 8, UN1789, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

Chemical Inventory Status –
Part 1: Ingrandient

Sulfide Buffer Solution

Hydrogen Chloride (7647-01-0)
Water (7732-18-5)
TSCA Yes Yes
EC Yes Yes
Japan No Yes
Australia Yes Yes

Chemical Inventory Status –
Part 2:Ingredient
Hydrogen Chloride (7647-01-0)
Water (7732-18-5)
Korea Yes Yes
DSL Yes Yes
NDSL No No
Phil. Yes Yes

Federal, State & International Regulations –
Part 1: Ingredient.
Hydrogen Chloride (7647-01-0)
Water (7732-18-5)
RQ 5000 No
TPQ 500* Yes
List Yes No
Chemical Catg No No

Federal, State &
International Regulations –
Part 2:Ingredient
Hydrogen Chloride (7647-01-0)
Water (7732-18-5)
CERCLA 5000 No
261.33 No No
8(d) No No

Chemical Weapons Convention:No

TSCA 12 (b):No

CDTA:Yes Mixture/Liquid)

SARA 311/312: Acute: Yes
Chronic: Yes
Fire: No
Pressure: No
Reactivity: No

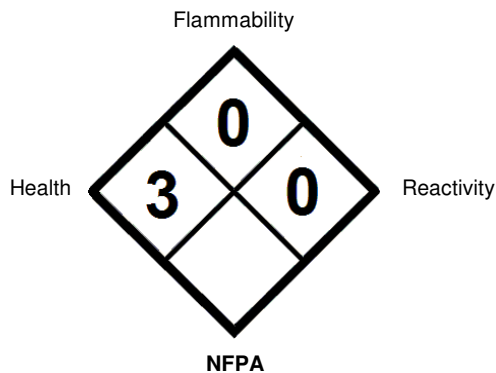
Australian Hazchem Code: None
Poison Schedule: None allocated

SECTION 16

Additional Information

Conditions aggravated/target organs: Corrosive! Persons with preexisting skin, eye and respiratory disorders may be more susceptible. Acute: Severe irritation or burns to skin, eyes, respiratory tract and digestive tract. Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or inhaled. Chronic: Dermatitis, erosion of teeth, eye damage. If ingested do not induce vomiting, give large quantities of water or milk. Get medical attention immediately.

Sulfide Buffer Solution



Revisions

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| 7/28/2010 | 0.1 | updated msds to 16 section from 10 section msds. STN |
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