

MATERIAL SAFETY DATA SHEET

Versenate Hardness Buffer Solution

SECTION 1 . Product and Company Identification

Product Name and Synonym: Versenate Hardness Buffer Solution
Product Code: 205-05
Material Uses:
Manufacturer: OFI Testing Equipment, Inc.
11302 Steeplecrest Drive
Houston, TX 77065 USA
Phone: (713) 880-9885
Fax: (713) 880-9886
Entry Date : 5/6/2010
Print Date: 7/29/2010
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

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

SECTION 2 HAZARD IDENTIFICATION

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

Emergency Overview: Caution! May Cause Irritation to Skin and Eyes.

Inhalation: No Adverse Health Effects Expected from Inhalation.

Ingestion: Substance has Low Toxicity by Ingestion. Large Amounts May Cause Gastrointestinal Upset due to Osmotic Imbalance Caused by its ability to Sequester Metal Ions.

Skin: May Cause Irritation with Redness and Pain.

Eye Contact: May Cause Irritation, Redness and Pain.

Chronic Exposure: No Information Found.

Aggravated by Exposure: No Information Found.

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Ammonium Chloride	CAS# 12125-02-9	6.8%	W/V	None established
<input type="checkbox"/>	Ammonium Hydroxide 28-30% w/w	CAS# 1336-21-6	57.2%	V/V	None established
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

SECTION 4 FIRST AID MEASURES

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids

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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 acid.
Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of
Of spill. Wear appropriate personal protective equipment as specified in section 8. Contain and recover liquid when possible. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with dilute acid such as acetic, hydrochloric Or sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

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 [x]
Protective Gloves: NIOSH Approved Gloves
Eye Protection: Goggles and Face Shield
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: > 90
Boiling Point: Information not available Evaporation Rate Information not available
Vapor Pressure: Information not available Evaporation Standard

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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 with ammonia odor	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Not applicable		
Specific Gravity:	Information not available		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Avoid contact with incompatible materials.
Materials to Avoid:	Strong oxidizers, halogens, bleaches
Hazardous Decomposition Products:	Ammonia
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Carcinogenic References: IARC Category- None, NTP Carcinogen - Known: No

SECTION 12 Ecological Information

This material is not expected to significantly bioaccumulate.

SECTION 13 Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. 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: Ammonia Solution (with 10-35% Ammonia), 8, UN2672, PG III

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:Ingredient
Ammonium Hydroxide (1336-21-6)
Ammonium Chloride (12125-02-9)
TSCA Yes Yes
EC Yes Yes
Japan No Yes
Australia Yes Yes

Chemical Inventory Status –
Part 2:Ingredient

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Ammonium Hydroxide (1336-21-6)
 Ammonium Chloride (12125-02-9)
 Korea Yes Yes
 DSL Yes Yes
 NDSL NO No
 Phil. Yes Yes

Federal, State & International Regulations –
 Part 1: Ingredient.

Ammonium Hydroxide (1336-21-6)
 Ammonium Chloride (12125-02-9)
 RQ NO No
 TPQ NO NO
 List NO No
 Chemical Catg No No

Federal, State &
 International Regulations –
 Part 2:Ingredient

Ammonium Hydroxide (1336-21-6)
 Ammonium Chloride (12125-02-9)
 CERCLA 1000 5000
 261.33 No No
 8(d) No No

Chemical Weapons Convention:No
 TSCA 12 (b):No
 CDTA:NO

SECTION 16 Additional Information

Conditions aggravated/target organs: Corrosive! Harmful or fatal if inhaled or swallowed. Persons with preexisting skin, eye or respiratory disorders may be more susceptible. Acute: Extremely destructive to mucous membranes, upper respiratory tract, eyes and skin. May cause spasm, inflammation and edema of larynx and bronchi, pneumonitis and pulmonary edema. Chronic: Damage to respiratory tract, skin and eyes.

Flammability

Health

Reactivity

Revisions

NFPA

7/29/2010	0.1	updated msds to 16 section from 10 section msds. STN
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