

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 01.06.2015**Hardness Buffer SS****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Hardness Buffer SS**Manufacturer/Supplier Article number:** HA7406SS**Recommended uses of the product and restrictions on use:** Laboratory Chemicals**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:****ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification****Classification of the substance or mixture:****Health hazard**

Reproductive toxicity, category 1B

Reproductive toxicity category 1B.

Corr. Metals 1.

Eye damage 1.

Skin corr. 1A.

**Signal word:** Danger**Hazard statements:**

May be corrosive to metals.

May damage fertility or the unborn child.

Causes severe skin burns and eye damage.

Causes serious eye damage.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep only in original container.

IF exposed or concerned: Get medical advice/attention.

Absorb spillage to prevent material damage.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

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IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.  
 Specific treatment (see supplemental first aid instructions on this label).  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER or doctor/physician.  
 Store locked up.  
 Store in corrosive resistant stainless steel container with a resistant inner liner.  
 Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None**SECTION 3: Composition/information on ingredients****Ingredients:**

<b>Ingredients:</b>		
CAS 1303-96-4	Disodium tetraborate decahydrate	<4 %
CAS 1313-84-4	Sodium Sulfide	<1 %
CAS 1310-73-2	Sodium Hydroxide	<1 %
CAS 6381-59-5	Potassium Sodium Tartrate,	<1 %
CAS 7732-18-5	Deionized Water	>93 %
Percentages are by weight		

**SECTION 4: First aid measures****Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

**After skin contact:**

Wash affected area with soap and water. Flush skin with plenty of soap and water for at least 15 minutes. Immediately seek medical attention.

**After eye contact:**

Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Immediately get medical assistance. Continue rinsing eyes during transport to the hospital.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Immediately seek medical attention.

**Most important symptoms and effects, both acute and delayed:**

Shortness of breath. Irritation. Nausea. Headache.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

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**Hardness Buffer SS****SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Use water spray to blanket fire, cool fire exposed containers, and flush non - ignited spills away from fire.

**Unsuitable extinguishing agents:** None**Special hazards arising from the substance or mixture:**

Irritating and toxic gases may be generated by thermal decomposition and combustion.

**Advice for firefighters:****Protective equipment:**

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

**Additional information (precautions):**

Avoid contact with skin, eyes and clothing.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Ensure that air-handling systems are operational. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Should not be released into environment.

**Methods and material for containment and cleaning up:**

If necessary use trained response staff or contractor. Wear protective eyewear, gloves, and clothing. Sweep up and containerize for disposal. Clean up spills immediately, observing precautions in Section 8. Minimize dust generation. Always obey local regulations. Dispose of empty containers as unused product. Refer to Section 13. Cover with mixture of sodium carbonate/calcium carbonate, clay, and sand. Refer to Section 8.

**Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:**

Wash hands after handling. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke, or use personal products when handling chemical substances.

**Conditions for safe storage, including any incompatibilities:**

Keep container tightly closed in a cool, dry, well-ventilated area. Protect from freezing and physical damage.

**SECTION 8: Exposure controls/personal protection****Control parameters:**

1303-96-4, Disodium tetraborate decahydrate, TWA 2.000000 mg/m<sup>3</sup> USA. ACGIH.

1303-96-4, Disodium tetraborate decahydrate, TWA 5.000000 mg/m<sup>3</sup> USA. NIOSH.

1310-73-2, Sodium hydroxide, TWA 2.000000 mg/m<sup>3</sup> USA. OSHA.

1310-73-2, Sodium hydroxide, C 2.000000 mg/m<sup>3</sup> USA. ACGIH.

1310-73-2, Sodium hydroxide, C 2.000000 mg/m<sup>3</sup> USA. NIOSH.

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<b>Appropriate engineering controls:</b>	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Normal ventilation is adequate.
<b>Respiratory protection:</b>	Not required under normal conditions of use.
<b>Protection of skin:</b>	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.
<b>Eye protection:</b>	Safety glasses with side shields or goggles.
<b>General hygienic measures:</b>	Wash hands before breaks and immediately after handling the product. Perform routine housekeeping to prevent dust generation. Before re-wearing, wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear colorless liquid	<b>Explosion limit lower:</b>	Non Explosive
		<b>Explosion limit upper:</b>	Non Explosive
<b>Odor:</b>	Sulfide odor	<b>Vapor pressure at 20°C:</b>	Not applicable
<b>Odor threshold:</b>	Not applicable	<b>Vapor density:</b>	Not applicable
<b>pH-value:</b>	Not applicable	<b>Relative density:</b>	Not applicable
<b>Melting/Freezing point:</b>	Not applicable	<b>Solubilities:</b>	Soluble in water.
<b>Boiling point/Boiling range:</b>	Not applicable	<b>Partition coefficient (n-octanol/water):</b>	Not applicable
<b>Flash point (closed cup):</b>	Not applicable	<b>Auto/Self-ignition temperature:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable	<b>Decomposition temperature:</b>	Not applicable
<b>Flammability (solid, gaseous):</b>	Not applicable	<b>Viscosity:</b>	a. Kinematic: Not applicable b. Dynamic: Not applicable
<b>Density at 20°C:</b>	Not applicable		

**SECTION 10: Stability and reactivity****Reactivity:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

No Information Available.

**Incompatible materials:**

No Information Available.

**Hazardous decomposition products:**

No Information Available.

**SECTION 11: Toxicological information****Acute Toxicity:****Dermal:**

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LD50 dermal-rabbit: 10,000 mg/kg Disodium tetraborate decahydrate.

**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:**

Skin - Rabbit Result : Causes severe burns. - 24 h 1310-73-2.

**Serious eye damage/irritation:**

Eyes - Rabbit Result : Corrosive - 24 h 1310-73-2.

**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:**

1303-96-4: fetotoxicity Presumed human reproductive toxicant

**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**

1310-73-2, LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h.

1310-73-2, LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h.

1310-73-2, Immobilization EC50 - Daphnia (water flea) - 40.38 mg/l - 48 h.

1303-96-4, LC50 - Carassius auratus (goldfish) - 178 mg/l - 72 h.

1303-96-4, EC50 - Daphnia magna (Water flea) - 1,085 - 1,402 mg/l - 48 h.

1303-96-4, IC50 - Desmodesmus subspicatus (green algae) - 158 mg/l - 96 h.

1313-82-2, LC50 - Lepomis macrochirus (Bluegill sunfish) - 0.032 mg/l - 96 h.

1313-82-2, LC50 - Daphnia magna (Water flea) - 2.1 mg/l - 48 h.

1313-82-2, Growth inhibition EC50 - Chlorella pyrenoidosa - 75 mg/l - 96 h.

**Persistence and degradability:**

Readily biodegradable.

**Bioaccumulative potential:**

Not expected to bio accumulate.

**Mobility in soil:** No additional information.**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

Cover spill with mixture of sodium carbonate/calcium carbonate, clay, and sand. Neutralize. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Always obey local regulations. Dispose of remaining solid as normal refuse. Wash area of spill with plenty of water.

**SECTION 14: Transport information**

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ADR, ADN, DOT, IMDG, IATA

Not Dangerous Goods

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Not Dangerous Goods.**Hazard Class:** None**Packing Group:** Not Dangerous Goods.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Not Dangerous Goods.**Hazard Class:** None**Packing Group:** Not Dangerous Goods.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Chronic

**SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

1303-96-4 Not Regulated.: not listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada****Canadian Domestic Substances List (DSL) :**

1303-96-4 Not Regulated.: not listed.

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This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 2-0-0**HMIS:** 2-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).
DOT	US Department of Transportation.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
HMIS	Hazardous Materials Identification System (USA).
WHMIS	Workplace Hazardous Materials Information System (Canada).
DNEL	Derived No-Effect Level (REACH).