Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Hardness Buffer Powder

Manufacturer/Supplier Article number: NCHA7215-J

Recommended uses of the product and restrictions on use: Laboratory Chemicals

Manufacturer Details:

AquaPhoenix Scientific
860 Gitts Run Road,
Hanover, PA 17331
(717) 632-1291

Supplier Details:

Nashville Chemical
7001 Westbelt Drive, Nashville, TN 37209
(615) 350-7070

Emergency telephone number:

Emergency Telephone No.: (800) 255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture:

Irritant
Eye irritation, category 2A

Health hazard
Reproductive toxicity, category 1B

Eye Irrit. 2A.
Repro Tox. 1B.

Signal word: Danger

Hazard statements:

Causes serious eye irritation.
May damage fertility or the unborn child.

Precautionary statements:

If medical advice is needed have product container or label at hand.
Keep out of reach of children.
Read label before use.
Wash skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
If eye irritation persists get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

Store locked up.

Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:		
CAS 144-55-8	Sodium Bicarbonate	<31.81 %
CAS 1303-96-4	Sodium Tetraborate,Decahydrate	<15.54 %
CAS 29932-54-5	Disodium Magnesium EDTA	<2.87 %
CAS 6381-92-6	Dihydrogen Magnesium EDTA	<2.43 %
		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 is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

After skin contact:

Wash affected area with soap and water. Seek medical advice if discomfort or irritation persists.

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.

After swallowing:

Do not induce vomiting. Dilute mouth with water or milk after rinsing. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Shortness of breath. Irritation. Nausea. Headache. May cause adverse kidney and liver effects.

Indication of any immediate medical attention and special treatment needed:

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

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

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

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

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

Additional information (precautions):

Avoid contact with skin, eyes and clothing. Avoid generating dust.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Environmental precautions:

Should not be released into environment.

Methods and material for containment and cleaning up:

Absorb and containerize for disposal. Avoid generating dust. Follow proper disposal methods. Refer to Section 13.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Wash hands after handling. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Do not eat, drink, smoke, or use personal products when handling chemical substances. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Refer to Section 5 and 10. Provide ventilation for containers. Keep container tightly closed. Store away from incompatible materials. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Control parameters:	1303-96-4, Sodium Tetraborate,Decahydrate, TWA 2.000000 mg/m3 USA. ACGIH.
Appropriate engineering controls:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Normal ventilation is adequate.
Respiratory protection:	Not required under normal conditions of use.
Protection of skin:	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder	
Eye protection:	Safety glasses with side shields or goggles.
General hygienic measures:	Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Wash hands and exposed skin with soap and plenty of water. Perform routine housekeeping to prevent dust generation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

SECTION 9: Physical and chemical properties

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

SECTION 10: Stability and reactivity

Reactivity:

None under normal processing.

Chemical stability:

Stable under normal conditions.

Possible hazardous reactions:

Thermal decomposition can lead to release of irritating gases and vapors.

Conditions to avoid:

Exposure to moisture or water.

Incompatible materials:

Strong oxidizers. Strong acids.

Hazardous decomposition products:

Carbon oxides. Sodium oxides.

SECTION 11: Toxicological information

Acute Toxicity:

Dermal:

LD50 Dermal - Rabbit - 10,000 mg/kg 1303 - 96 - 4.

Chronic Toxicity: No additional information.

Skin corrosion/irritation:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

Skin - Rabbit Result : Mild skin irritation - 24 h 497-19-8.

Serious eye damage/irritation:

Eyes - Rabbit Result: Eye irritation - 24 h 497-19-8.

Respiratory or skin sensitization: No additional information.
Carcinogenicity: No additional information.

Germ cell mutagenicity: No additional information.
Reproductive Toxicity: No additional information.
STOT-single and repeated exposure: No additional information.
Additional toxicological information:

No additional information.

SECTION 12: Ecological information

Ecotoxicity:

6381-92-6, EC50 - Algae - 10 - 100 mg/l - 72 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.
497-19-8, LC50 - Lepomis macrochirus (Bluegill) - 300 mg/l - 96 h.
497-19-8, EC50 - Daphnia magna (Water flea) - 265 mg/l - 48 h.
6381-92-6, LC50 - Leuciscus idus (Golden orfe) - > 500 mg/l - 96 h.
6381-92-6, EC50 - Daphnia - > 100 mg/l - 24 h.

Persistence and degradability: No additional information.
Bioaccumulative potential: No additional information.
Mobility in soil: No additional information.
Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

US DOT

UN Number:
ADR, ADN, DOT, IMDG, IATA — Not Dangerous Goods

Limited Quantity Exception: — None

Bulk:
RQ (if applicable): None
Proper shipping Name: Not Dangerous

Non Bulk:
RQ (if applicable): None
Proper shipping Name: Not Dangerous

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

Goods.
Hazard Class: None
Packing Group: Not Dangerous Goods.
Marine Pollutant (if applicable): No
additional information.
Comments: None

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):

Acute,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) :

144-55-8 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) :

144-55-8 Not Regulated.: not listed.

SECTION 16: Other information

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Hardness Buffer Powder

regulations applicable to this material.

NFPA: 2-0-0
HMIS: 0-0-0
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).