

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 11.05.2014**Hardness Buffer****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Hardness Buffer**Manufacturer/Supplier Article number:** AR-1001-60 EW**Recommended uses of the product and restrictions on use:** Dec 28 2015 12:00AM**Manufacturer Details:**

Aqua Analytics
39555 Orchard Hill Place, Suite 600, Novi, MI 48375
(888) 712-4000

Emergency telephone number:

Emergency Telephone No.: (800) 424-9300

SECTION 2: Hazards identification**Classification of the substance or mixture:****Environmentally Damaging**

Acute hazards to the aquatic environment, category 1

**Corrosive**

Serious eye damage, category 1

Skin corrosion, category 1A

Signal word: Danger**Hazard statements:**

Causes severe skin burns and eye damage.

Causes serious eye damage.

Very toxic to aquatic life.

Precautionary statements:

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

Wash skin thoroughly after handling.

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

Avoid release to the environment.

Specific treatment (see supplemental first aid instructions on this label).

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.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Immediately call a POISON CENTER or doctor/physician.

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.

Wash contaminated clothing before reuse.

Collect spillage.

Store locked up.

Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 11.05.2014

Hardness Buffer**SECTION 3: Composition/information on ingredients****Ingredients:**

Ingredients:		
CAS 1336-21-6	Ammonium Hydroxide	50.37 %
CAS 12125-02-9	Ammonium Chloride	6.76 %
CAS 7732-18-5	Water	42.88 %
CAS 12135-76-1	Ammonium Sulfide	0.02 %
Percentages are by weight		

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

Seek medical attention immediately.

After skin contact:

Seek medical attention immediately.

After eye contact:

Continue rinsing eyes during transport to hospital.

After swallowing:

Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed: None**Indication of any immediate medical attention and special treatment needed:** None**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:** None**Unsuitable extinguishing agents:** None**Special hazards arising from the substance or mixture:** None**Advice for firefighters:****Protective equipment:** None**Additional information (precautions):** None**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:** None**Environmental precautions:** None**Methods and material for containment and cleaning up:**

Soak up with inert absorbent material.

Reference to other sections: None**SECTION 7: Handling and storage****Precautions for safe handling:** None**Conditions for safe storage, including any incompatibilities:**

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Safety Data Sheet

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

12125-02-9, Ammonium Chloride, ACGIH TLV: 10mg/m³.
 1336-21-6, Ammonium Hydroxide, ACGIH TLV: 17mg/m³, OSHA PEL:
 35mg/m³.

Appropriate engineering controls:

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.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance.

Eye protection:

Safety goggles or glasses, or appropriate eye protection.

General hygienic measures:

Wash hands before breaks and at the end of work. Avoid contact with skin, eyes and clothing. Perform routine housekeeping. Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

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

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

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possible hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

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None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information**Acute Toxicity:** No additional information.**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:**

Causes skin damage. Ammonium Sulfide.

Serious eye damage/irritation:

Causes serious eye damage Ammonium Sulfide.

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:** No additional information.**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).

SECTION 14: Transport information**US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

2672

Limited Quantity Exception:

None

Bulk:**Non Bulk:**

Safety Data Sheet

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Marine Pollutant (Ammonium Hydroxide).**Hazard Class:** 8**Packing Group:** III.**Marine Pollutant (if applicable):** Yes**Comments:** None**RQ (if applicable):** None**Proper shipping Name:** Ammonia Solution,
Marine Pollutant (Ammonium Hydroxide).**Hazard Class:** 8**Packing Group:** III.**Marine Pollutant (if applicable):** Yes**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute

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) :

7732-18-5 Water: listed.

12135-76-1 Ammonium Sulfide: listed.

1336-21-6 Ammonium Hydroxide: listed.

12125-02-9 Ammonium Chloride: listed.

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

12125-02-9 Ammonium Chloride 5000.

1336-21-6 Ammonium Hydroxide 1000.

12135-76-1 Ammonium Sulfide 100.

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) :**

7732-18-5 Water: listed.

12135-76-1 Ammonium Sulfide: listed.

1336-21-6 Ammonium Hydroxide: listed.

12125-02-9 Ammonium Chloride: listed.

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This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 3-0-0**HMIS:** 3-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:** None