

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 12.20.2014**Hardness Indicator Buffer Solution****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Hardness Indicator Buffer Solution**Manufacturer/Supplier Article number:** DUMTK-636-02**Recommended uses of the product and restrictions on use:****Manufacturer Details:**

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

Supplier Details:

Dubois Chemicals Inc.
3630 East Kemper Rd, Cincinnati, OH 45241
(800) 438-2647

Emergency telephone number:

Emergency Phone No. (800) 255-3924

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

Flammable liquids, category 3

Flammable Liquids Cat. 3.

Signal word: Warning**Hazard statements:**

Flammable liquid and vapour.

Precautionary statements:

If medical advice is needed have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/light/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire, use agents recommended in section 5 for extinction.
Store in a well ventilated place. Keep cool.
Dispose of contents and container to an approved waste disposal plant.

Other Non-GHS Classification: None

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

Ingredients:		
CAS 102-71-6	Triethanolamine	81.01 %
CAS 64-17-5	Ethanol	18.95 %
CAS 1787-61-7	Eriochrome Black T	0.04 %
Percentages are by weight		

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

Loosen clothing as necessary and position individual in a comfortable position. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Do not perform mouth-to-mouth on an unconscious person.

After skin contact:

Wash hands and exposed skin with soap and plenty of water. Seek medical attention immediately.

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. Occasionally lift the upper and lower eyelids while rinsing. Seek medical attention immediately.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing agents:**

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

Unsuitable extinguishing agents:

Water may be ineffective on fire.

Special hazards arising from the substance or mixture:

Carbon oxides. Nitrogen oxides. Flashback along vapor trail may occur.

Advice for firefighters:**Protective equipment:**

Wear protective eyewear, gloves, and clothing.

Additional information (precautions):

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. Fire Fighting

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Instructions. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes and clothing. Use normal procedures. Use protective clothing. Use NIOSH approved breathing equipment.

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

Keep product and empty container away from heat and sources of ignition. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure adequate ventilation.

Environmental precautions:

Should not be released into environment.

Methods and material for containment and cleaning up:

Soak up with inert absorbent material. Keep in suitable closed containers for disposal. Collect contaminated soil for characterization per Section 13. If necessary use trained response staff or contractor.

Reference to other sections: None

SECTION 7: Handling and storage**Precautions for safe handling:**

Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid splashes or spray in enclosed areas. Wear protective eyewear, gloves, and clothing. Wash hands after handling. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities:

Store away from acids. Store product and empty container away from heat and sources of ignition. Store away from food. Keep container tightly closed in a cool, dry, and well-ventilated area. Store in inert atmosphere. Store with like hazards. Store away from incompatible materials.

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

102-71-6, Triethanolamine ACS., ACGIH 5 mg/m³ TWA.

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection:

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.

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.

Eye protection:

Safety glasses with side shields or goggles.

General hygienic measures:

Before re-wearing, wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash hands before breaks and at the end of work. Follow Chemical Hygiene Plan. Wash hands and exposed skin with soap and plenty of water. Remove contaminated clothing and shoes.

SECTION 9: Physical and chemical properties

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Appearance (physical state, color):	Dark, Blue Liquid	Explosion limit lower:	Not determined
		Explosion limit upper:	Not determined
Odor:	Alcohol	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:	Not Determined
Boiling point/Boiling range:	Not determined	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	~32C	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	Not determined		

SECTION 10: Stability and reactivity**Reactivity:** None**Chemical stability:**

Hygroscopic air sensitive.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Incompatible materials. Heat, hot surfaces, open flames, and sources of ignition.

Incompatible materials:

Oxidizers, aldehydes, heat, sparks, open flame. Will attack some forms of rubber, plastics, and coatings. May react with metallic aluminum and generate hydrogen gas.

Hazardous decomposition products:

Carbon oxides. Nitrous oxides. Hydrogen cyanide. Formaldehyde.

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

LD50 > 22.5 g/kg (Triethanolamine) Rabbit:.

Chronic Toxicity: No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:** No additional information.**Respiratory or skin sensitization:**

May cause sensitization by skin contact.

Irritation: Causes eye irritation

Carcinogenicity:**Triethanolamine.:** Liver - Irregularities - Based on Human Evidence

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Other Adverse Effects: Tumorigenic effects have been reported in experimental animals.

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

No additional information.

SECTION 12: Ecological information**Ecotoxicity:**Freshwater Algae, 72 Hr EC50 *Desmodesmus subspicatus*: 216 mg/L; 96 Hr EC50 *Desmodesmus subspicatus*: 169 mg/L.Freshwater Fish, 96-Hr LC50 *Pimephales promelas*: 10600 - 13000 mg/L [flow-through]; 96-Hr LC50 *Pimephales promelas*: > 1000 mg/L [static]; 96-Hr LC50 *Lepomis macrochirus*: 450 - 1000 mg/L [static].**Persistence and degradability:**

Readily biodegradable.

Bioaccumulative potential: No additional information.**Mobility in soil:**

Aqueous solution has high mobility in soil: -2.53.

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

Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Place in container for disposal according to local regulations (see section 13). 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 1993

Limited Quantity Exception:

None

Bulk:**RQ (if applicable):** None**Proper shipping Name:** Flammable Liquid, N.O.S. (Ethanol Solution).**Hazard Class:** 3**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Flammable Liquid, N.O.S. (Ethanol Solution).**Hazard Class:** 3**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None

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Fire

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) :

All ingredients are 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) :**

All ingredients are 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 regulations applicable to this material.

NFPA: 1-0-0**HMIS:** 1-0-0**GHS Full Text Phrases:** None

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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).