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MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: EGTA Solution **Catalog Number:** 2229726

Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669-3050

MSDS Number: M00285 Chemical Name: Not applicable CAS No.: Not applicable Chemical Formula: Not applicable

Chemical Family: Not applicable Hazard: Causes burns.

Date of MSDS Preparation:

Day: 21 Month: March Year: 2003 Emergency Telephone Numbers: (Medical and Transportation) (303) 623-5716 24 Hour Service (515)232-2533 8am - 4pm CST

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sodium Hydroxide

CAS No.: 1310-73-2

TSCA CAS Number: 1310-73-2 Percent Range: 1.0 - 5.0

Percent Range Units: weight / volume **LD50:** Oral rat LDLo = 500 mg/kg.

LC50: None reported

TLV: 2 mg/m³ Ceiling/STEL

PEL: 2 mg/m³

Hazard: Causes severe burns. Toxic.

Ethylenebis(oxyethylenenitrilo)tetraacetic Acid (EGTA)

CAS No.: 67-42-5

TSCA CAS Number: 67-42-5 Percent Range: 1.0 - 5.0

Percent Range Units: weight / volume **LD50:** Oral rat LD50 = 3587 mg/kg

LC50: None reportedTLV: Not establishedPEL: Not established

Hazard: May cause irritation.

Demineralized Water

CAS No.: 7732-18-5

TSCA CAS Number: 7732-18-5 **Percent Range:** 90.0 - 100.0

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Percent Range Units: volume / volume

LD50: None reported LC50: None reported TLV: Not established PEL: Not established

Hazard: No effects anticipated.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, yellow liquid

Odor: None

CAUSES BURNS

HMIS:

Health: 3

Flammability: 0
Reactivity: 0

Protective Equipment: X - See protective equipment, Section 8.

NFPA:

Health: 3

Flammability: 0

Reactivity: 0

Symbol: Not applicable

Potential Health Effects:

Eye Contact: Causes eye burns. Skin Contact: Causes burns. Skin Absorption: None reported

Target Organs: None reported

Ingestion: Causes: burns of the mouth and esophagus

Target Organs: None reported

Inhalation: Causes: burns

Target Organs: None reported

Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions Respiratory conditions

Chronic Effects: None reported

Cancer / Reproductive Toxicity Information:

This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

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Skin Contact (First Aid): Wash skin with plenty of water for 15 minutes. Remove contaminated clothing. Call physician immediately.

Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Call physician immediately.

Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable Method: Not applicable Flammability Limits:

Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Autoignition Temperature: Not applicable

Hazardous Combustion Products: This material will not burn. Fire / Explosion Hazards: This product will not burn or explode.

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. *Containment Technique:* Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment.

Clean-up Technique: Cover spilled material with a dry acid, such as citric or boric. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled.

Special Instructions (for accidental release): Mixture contains a component which is regulated as a water pollutant. Product is regulated as a hazardous water pollutant.

304 EHS RQ (40 CFR 355): Not applicable D.O.T. Emergency Response Guide Number: 154

7. HANDLING / STORAGE

Handling: Avoid contact with eyes skin clothing Do not breathe mist or vapors. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Store between 10° and 25°C. Protect from: heat

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

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Engineering Controls: Have an eyewash station nearby. Have a safety shower nearby. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: chemical splash goggles

Skin Protection: disposable latex gloves lab coat Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash

thoroughly after handling. Protect from: heat

TLV: Not established PEL: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, yellow liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None *pH:* >13

Vapor Pressure: Not determined

Vapor Density (air = 1): Not determined

Boiling Point: 95.5 °C (204 °F)

Melting Point: Not applicable

Specific Gravity (water = 1): 1.03

Evaporation Rate (water = 1): 1.43

Volatile Organic Compounds Content: Not applicable Partition Coefficient (n-octanol/water): Not applicable

Solubility:

Water: Soluble Acid: Soluble

Other: Not determined Metal Corrosivity: Steel: 0.00 in/yr Aluminum: 81.1 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures

Reactivity / Incompatibility: Incompatible with: acids

Hazardous Decomposition: Heating to decomposition releases: carbon dioxide carbon monoxide nitrogen

oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported *LC50:* None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

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Ingredient Toxicological Data: Sodium Hydroxide: Oral rat LDLo = 500 mg/kg; EGTA: Oral rat LD50 = 3587 mg/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D002

Special Instructions (Disposal): Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Sodium Hydroxide Solution

DOT Hazard Class: 8 DOT Subsidiary Risk: NA DOT ID Number: UN1824 DOT Packing Group: II

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Sodium Hydroxide Solution

ICAO Hazard Class: 8
ICAO Subsidiary Risk: NA
ICAO ID Number: UN1824
ICAO Packing Group: II
I.M.O.:

I.M.O. Proper Shipping Name: Sodium Hydroxide Solution

I.M.O. Hazard Class: 8
I.M.O. Subsidiary Risk: NA
I.M.O. ID Number: UN1824
I.M.O. Packing Group: II

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification:

Proper Shipping Name: Chemical Kit

Hazard Class: 9 UN Number 3316.

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15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Sodium Hydroxide 1000 lbs.

304 EHS RQ (40 CFR 355): Not applicable

- Clean Water Act (40 CFR 116.4): Sodium Hydroxide - RQ = 1000 lbs. (454 kgs.)

RCRA: Contains RCRA regulated substances. See Section 13, EPA Waste ID Number.

C.P.S.C.: Not applicable

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

TSCA CAS Number: Not applicable

16. OTHER INFORMATION

Intended Use: Chelating Reagent

References: TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. IARC Monographs on the Evaluation of the Carcinogenic Risks to Humans. World Health Organization (Volumes 1-42) Supplement 7. France: 1987. Technical Judgment. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Vendor Information.

Revision Summary: Updates in Section(s) 14,

Legend:

NA - Not Applicable

w/w - weight/weight

ND - Not Determined

w/v - weight/volume

NV - Not Available

v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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