$The following \ list \ contains \ the \ Material \ Safety \ Data \ Sheets \ you \ requested. \ Please \ scoll \ down \ to \ view \ the \ requested \\ MSDS(s).$

Product	MSDS	Distributor	Format	Language	Quantity
2408932	N/A	Hach Company	OSHA	English	1

Total Enclosures: 1

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

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Thiosulfate Standard Solution, Stabilized, 0.0109 N

Catalog Number: 2408932

Hach Company P.O.Box 389 Loveland, CO USA 80539

(970) 669-3050

MSDS Number: M00371 Chemical Name: Not applicable CAS No.: Not applicable

Chemical Formula: Not applicable Chemical Family: Not applicable Hazard: May cause irritation.

Date of MSDS Preparation:

Day: 31 **Month:** March **Year:** 2012

Emergency Telephone Numbers: (Medical and Transportation)

(303) 623-5716 24 Hour Service (515)232-2533 8am - 4pm CST

MSDS No: M00371

2. COMPOSITION / INFORMATION ON INGREDIENTS

Propylene Glycol

CAS No.: 57-55-6

TSCA CAS Number: 57-55-6 **Percent Range:** 20.0 - 30.0

Percent Range Units: volume / volume

LD50: Oral rat LD50 = 20 g/kg

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

Hazard: No effects anticipated.

Demineralized Water

CAS No.: 7732-18-5

TSCA CAS Number: 7732-18-5 **Percent Range:** 70.0 - 80.0

Percent Range Units: volume / volume

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

Hazard: No effects anticipated.

Sodium Thiosulfate

CAS No.: 7772-98-7

TSCA CAS Number: 7772-98-7

Percent Range: < 1.0

Percent Range Units: weight / volume **LD50:** Oral rat LD50 > 5 000 mg/kg.

LC50: None reported *TLV:* Not established

PEL: Not established **Hazard:** May cause irritation.

Sodium Sulfate

CAS No.: 7757-82-6

TSCA CAS Number: 7757-82-6 **Percent Range:** 1.0 - 5.0

Percent Range Units: weight / volume **LD50:** Oral mouse LD50 = 5989 mg/kg

LC50: None reportedTLV: Not establishedPEL: Not establishedHazard: May cause irritation.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, colorless liquid

Odor: Sweet

MAY CAUSE EYE AND SKIN IRRITATION

HMIS: Health: 1 Flammability: 0 Reactivity: 0

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

NFPA: Health: 1 Flammability: 0 Reactivity: 0

Symbol: Not applicable Potential Health Effects:

Eye Contact: May cause irritiationSkin Contact: May cause irritiationSkin Absorption: No effects anticipatedTarget Organs: Not applicable

Ingestion: Very large doses may cause: central nervous system depression kidney damage rapid pulse and

respirations

Target Organs: None reported Inhalation: No effects anticipated Target Organs: Not applicable

Medical Conditions Aggravated: None reported

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.

Skin Contact (First Aid): Wash skin with soap and plenty of water. Call physician if irritation develops.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: During a fire, this product decomposes to form toxic gases.

Flash Point: > 100°C (212°F)

Method: Open cup Flammability Limits:

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

Hazardous Combustion Products: Toxic fumes of: sodium oxides carbon monoxide, carbon dioxide.

Fire / Explosion Hazards: None reported 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. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Containment Technique: Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment.

Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

Special Instructions (for accidental release): Not applicable

304 EHS RQ (40 CFR 355): Not applicable D.O.T. Emergency Response Guide Number: None

7. HANDLING / STORAGE

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

Storage: Protect from: oxidizers Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields Skin Protection: disposable latex gloves lab coat Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin Do not breathe: mist/vapor Wash thoroughly after handling.

TLV: Not established PEL: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: Sweet *pH:* 9.9

Vapor Pressure: Not determined Vapor Density (air = 1): Not determined

Boiling Point: 99°C (210°F) **Melting Point:** -5°C (23°F) Specific Gravity/Relative Density (water = 1; air =1): 1.05

Evaporation Rate (water = 1): 0.91

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

Solubility:

Water: Soluble *Acid:* Soluble

Other: Not determined Metal Corrosivity: Steel: 0.006 in/yr Aluminum: 0.003 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Heat Evaporation

Reactivity / Incompatibility: Incompatible with: oxidizers

Hazardous Decomposition: Toxic fumes of: sodium oxides carbon monoxide carbon dioxide

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

Ingredient Toxicological Data: Propylene Glycol: Oral rat LD50 = 20 g/kg, Sodium Sulfate: Oral mouse LD50 = 5989

mg/kg, Sodium Thiosulfate: Oral rat LD50 > 8 g/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

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 trash. *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: Not Currently Regulated

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DOT Hazard Class: NA DOT Subsidiary Risk: NA DOT ID Number: NA DOT Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

ICAO Hazard Class: NA ICAO Subsidiary Risk: NA ICAO ID Number: NA ICAO Packing Group: NA

I.M.O. Proper Shipping Name: Not Currently Regulated

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

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

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): Not applicable 304 EHS RQ (40 CFR 355): Not applicable Clean Water Act (40 CFR 116.4): Not applicable **RCRA:** Contains no RCRA regulated substances.

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): None

California Perchlorate Rule CCR Title 22 Chap 33: 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: Laboratory Reagent Titrant solution

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991. Revision Summary: Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Legend:

w/w - weight/weight NA - Not Applicable 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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