

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

<u>Product</u>	<u>MSDS</u>	<u>Distributor</u>	<u>Format</u>	<u>Language</u>	<u>Quantity</u>
46249	N/A	Hach Company	ROWGHS	English	1

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Total Enclosures: 1

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

MSDS No: M00799

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Soap Solution for Hardness Determination  
**Catalog Number:** 46249

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

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

**MSDS Number:** M00799  
**Chemical Name:** Not applicable  
**CAS Number:** Not applicable  
**Additional CAS No. (for hydrated forms):** Not applicable  
**Chemical Formula:** Not applicable  
**Chemical Family:** Not applicable  
**Intended Use:** Hardness determination

## 2. HAZARDS IDENTIFICATION

**GHS Classification:**

**Hazard categories:** Corrosive to Metals: Met. Corr. 1 Flammable Liquids: Flam. Liq. 3 . Skin Corrosion/Irritation: Skin Corr. 1A

**GHS Label Elements:**  
DANGER



**Hazard statements:** May be corrosive to metals. Flammable liquid and vapour. Causes severe skin burns and eye damage.

**Precautionary statements:** Wear protective gloves / protective clothing / eye protection / face protection. P303+P361+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of soap and water. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. IF INHALED: Remove victim/person to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse. In case of fire: Use dry sand or extinguishing powder for extinction. Absorb spillage to prevent material damage. P403+P235 Store in a well-ventilated place. Keep cool. Dispose of contents/container according to state, local, federal or national regulations.

**HMIS:**

**Health:** 3

**Flammability:** 3

**Reactivity:** 1

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

**NFPA:**

**Health:** 3

**Flammability:** 3

**Reactivity:** 1

*Symbol:* Not applicable  
*WHMIS Hazard Classification:* Class B, Division 2 - Flammable liquids Class E - Corrosive material  
*WHMIS Symbols:* Corrosive Flammable / Combustible

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

*Hazardous Components according to GHS:*

**Isopropanol**

*CAS Number:* 67-63-0  
*Chemical Formula:* C<sub>3</sub>H<sub>8</sub>O  
*GHS Classification:*  
*Percent Range (Trade Secret):* 5.0 - 15.0  
*Percent Range Units:* volume / volume  
*PEL:* 400 ppm (980 mg/m<sup>3</sup>)  
*TLV:* 200 ppm (492 mg/m<sup>3</sup>)

*WHMIS Symbols:* Flammable / Combustible Other Toxic Effects

**Linseed Oil, Raw**

*CAS Number:* 8001-26-1  
*Chemical Formula:* Not applicable  
*GHS Classification:* Skin Irrit. 2, H315; Eye Irrit. 2, H319;  
*Percent Range (Trade Secret):* 5.0 - 15.0  
*Percent Range Units:* volume / volume  
*PEL:* Not established  
*TLV:* Not established

*WHMIS Symbols:* Other Toxic Effects

**EDTA Tetrasodium Salt**

*CAS Number:* 64-02-8  
*Chemical Formula:* C<sub>10</sub>H<sub>12</sub>N<sub>2</sub>Na<sub>4</sub>O<sub>8</sub> 2H<sub>2</sub>O  
*GHS Classification:* Acute Tox. 4-Orl, H302; Eye Dam. 1, H318  
*Percent Range (Trade Secret):* < 5.0  
*Percent Range Units:* weight / volume  
*PEL:* 15 mg/m<sup>3</sup> as total dust; 5 mg/m<sup>3</sup> as respirable dust  
*TLV:* 10 mg/m<sup>3</sup> as inhalable dust; 3 mg/m<sup>3</sup> as respirable dust

*WHMIS Symbols:* Other Toxic Effects

**Potassium Hydroxide**

*CAS Number:* 1310-58-3  
*Chemical Formula:* KOH  
*GHS Classification:* Acute Tox. 4 - Or1, H302; Skin Corr. 1A, H314; Met Corr. 1, H290; Aquatic Acute 3, H402  
*Percent Range (Trade Secret):* 1.0 - 10.0  
*Percent Range Units:* weight / volume  
*PEL:* 15 mg/m<sup>3</sup> as inhalable dust; 5 mg/m<sup>3</sup> as respirable dust  
*TLV:* 10 mg/m<sup>3</sup> as inhalable dust; 3 mg/m<sup>3</sup> as respirable dust

*WHMIS Symbols:* Corrosive Acute Poison

*Hazardous Components according to GHS:* No

**Demineralized Water**

*CAS Number:* 7732-18-5  
*Chemical Formula:* H<sub>2</sub>O  
*GHS Classification:* Not a dangerous substance according to GHS.  
*Percent Range (Trade Secret):* 40.0 - 50.0  
*Percent Range Units:* volume / volume  
*PEL:* Not established  
*TLV:* Not established

**WHMIS Symbols:** Not applicable

**Propylene Glycol**

**CAS Number:** 57-55-6

**Chemical Formula:** C<sub>3</sub>H<sub>8</sub>O<sub>2</sub>

**GHS Classification:** Not a dangerous substance according to GHS.

**Percent Range (Trade Secret):** 30.0 - 40.0

**Percent Range Units:** volume / volume

**PEL:** Not established

**TLV:** Not established

**WHMIS Symbols:** Not applicable

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#### 4. FIRST AID MEASURES

**General Information:** In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

**Advice to doctor:** Treat symptomatically.

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

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

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. Call physician.

**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.

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#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Flammable Liquid Combustion generates toxic fumes.

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Containers can build up pressure if exposed to heat.

**Extinguishing Media:** Water. Carbon dioxide Dry chemical. Alcohol foam.

**Extinguishing Media NOT To Be Used:** Not applicable Not applicable Not applicable

**Fire / Explosion Hazards:** Flammable Liquid Do not expose to flames. Do not expose to sparks or other ignition sources.

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

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#### 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:** Releases of this material may contaminate the environment. Remove all combustible material from spill area. Remove all ignition and spark-creating sources from the spill area. Cover spilled liquid with a commercially available flammable liquid sorbent such as vapor barrier blanket or activated carbon to avoid evolution of fumes. Vapors may travel to a source of ignition and flash back. May be ignited by: heat, sparks, or flames. Material will float on water creating a fire hazard. Dike the material to create a barrier to combustibles. Dike large spills to keep spilled material from entering sewage and drainage systems or bodies of water.

**Clean-up Technique:** Eliminate all sources of ignition. Do not breathe the fumes. Use only non-sparking tools. Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Incinerate material at a government approved hazardous waste facility. Decontaminate the area of the spill with a weak acid solution.

**Evacuation Procedure:** Evacuate general area (50 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

**DOT Emergency Response Guide Number:** 132

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#### 7. HANDLING AND STORAGE

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

**Storage:** Keep away from: sparks, flames and other ignition sources oxidizers Protect from: heat

**Flammability Class:** Class IC

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Have an eyewash station nearby. Have a safety shower nearby. Use a fume hood to avoid exposure to dust, mist or vapor. 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:** laboratory fume hood

**Precautionary Measures:** Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash thoroughly after handling. Keep away from: sparks, flames and other ignition sources oxidizers Protect from: heat

**TLV:** Not established

**PEL:** Not established

**For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:**

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, brown liquid

**Physical State:** Liquid

**Molecular Weight:** Not applicable

**Odor:** Propylene Glycol

**Odor Threshold:** Not available

**pH:** 13.5

**Metal Corrosivity:**

**Corrosivity Classification:** Classified as corrosive to metals.

**Steel:** 0.000 in/yr

**Aluminum:** 15.539 in/yr

**Specific Gravity/ Relative Density (water = 1; air =1):** 1.056

**Viscosity:** Not determined

**Solubility:**

**Water:** Miscible

**Acid:** Miscible

**Other:** Not determined

**Partition Coefficient (n-octanol / water):** Not applicable

**Coefficient of Water / Oil:** Not applicable

**Melting Point:** Not determined

**Decomposition Temperature:** Not determined

**Boiling Point:** 98° C (208° F)

**Vapor Pressure:** Not determined

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

**Evaporation Rate (water = 1):** 0.76

**Volatile Organic Compounds Content:** Not determined

**Flammable Properties:** Flammable Liquid Combustion generates toxic fumes.

**Flash Point:** 25° C (77° F)

**Method:** Closed cup

**Flammability Limits:**

**Lower Explosion Limits:** Not determined

**Upper Explosion Limits:** Not determined

**Autoignition Temperature:** Not determined

**Explosive Properties:**

Not classified according to GHS criteria.

**Oxidizing Properties:**

Not classified according to GHS criteria.

**Reactivity Properties:**

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

**Gas under Pressure:**

Not classified according to GHS criteria.

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## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Mechanical Impact:** None reported

**Static Discharge:** None reported.

**Reactivity / Incompatibility:** May react violently in contact with: oxidizers Incompatible with: oleum cobalt chloride potassium-tert-butoxide aluminum

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

**Conditions to Avoid:** Contact with heat, sparks, open flames or other ignition sources.

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## 11. TOXICOLOGICAL INFORMATION

**Toxicokinetics, Metabolism and Distribution:** No information available for mixture.

**Toxicologically Synergistic Products:** None reported

**Acute Toxicity:** Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data

ATEmix LD50 = 2208mg/mg

ATEmix LC50 = 707.7mg/kg

**Specific Target Organ Toxicity - Single Exposure (STOT-SE):** Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity - Repeat Exposure (STOT-RE):** Based on classification principles, the classification criteria are not met.

**Skin Corrosion/Irritation:** Corrosive to skin.

**Eye Damage:** Corrosive to eyes.

**Sensitization:** Based on classification principles, the classification criteria are not met.

**CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction):** No data supporting germ cell mutagenicity, carcinogenicity or reproductive toxicity was found.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

**Symptoms/Effects:**

**Ingestion:** Causes: severe burns dizziness incoordination giddiness depression headache abdominal pain nausea vomiting diarrhea blood pressure problems rapid pulse and respirations respiratory arrest coma death

**Inhalation:** Causes: severe burns dizziness incoordination giddiness depression headache blood pressure changes rapid pulse and respirations

**Skin Absorption:** None Reported

**Chronic Effects:** None reported

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

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** --

No ecological data available for this product.

**Ingredient Ecological Information:** Isopropanol: LD50 goldfish 5,000 mg/L/24 hr, LC50 brown shrimp 1,400 mg/L/48 hr, LC50 brown shrimp 1150 mg/L/96 hr, LC50 fathead minnows 11,160 mg/L/24 hr, cell multiplication test Microcystis aeruginosa (algae) 1,000 mg/L

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## 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** D001 D002

**Special Instructions (Disposal):** Incinerate material at an E.P.A. approved hazardous waste facility.

**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. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

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## 14. TRANSPORT INFORMATION

**D.O.T.:**

**D.O.T. Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
(Potassium Hydroxide/Isopropanol Solution)

**Hazard Class:** 8

**Subsidiary Risk:** 3  
**ID Number:** UN2920  
**Packing Group:** II

**T.D.G.:**

**Proper Shipping Name:** Corrosive Liquid, Flammable, N.O.S.  
(Potassium Hydroxide/Isopropanol Solution)  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**UN Number/PIN:** 2920  
**Packing Group:** II

**I.C.A.O.:**

**I.C.A.O. Proper Shipping Name:** Corrosive Liquid, flammable, N.O.S.  
(Potassium Hydroxide/Isopropanol Solution)  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**ID Number:** UN2920  
**Packing Group:** II

**I.M.O.:**

**Proper Shipping Name:** Corrosive liquid, flammable, N.O.S.  
(Potassium Hydroxide/Isopropanol Solution)  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**ID Number:** UN2920  
**Packing Group:** II

**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.

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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 Fire 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.

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

**304 CERCLA RQ (40 CFR 302.4):** Potassium hydroxide 1000 lbs.

**304 EHS RQ (40 CFR 355):** Not applicable

**Clean Water Act (40 CFR 116.4):** Potassium hydroxide - RQ 1000 lbs.

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

**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).

**CAS Number:** Not applicable

**Canadian Inventory Status:** All ingredients of this product are DSL Listed.

**EEC Inventory Status:** All ingredients used to make this product are listed on EINECS / ELINCS.

**Australian Inventory (AICS) Status:** Not determined

**New Zealand Inventory (NZIoC) Status:** Not determined

**Korean Inventory (KECI) Status:** Not determined

**Japan (ENCs) Inventory Status:** Not determined

**China (PRC) Inventory (MEP) Status:** Not determined

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## 16. OTHER INFORMATION

**References:** 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.

**Complete Text of H phrases referred to in Section 3:** H290 May be corrosive to metals. Not applicable H314 Causes severe skin burns and eye damage.

**Revision Summary:** . Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS ( ST/SG/AC.10/36/Add.3).

**Date of MSDS Preparation:**

**Day:** 25

**Month:** November

**Year:** 2014

**MSDS Prepared:** MSDS prepared by Product Compliance Department extension 3350

**CCOHS Evaluation Note:** It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17.

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**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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