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

MSDS No: M00385

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Wide Range 4 pH Indicator Solution
Catalog Number: 2329332

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: M00385
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: Laboratory Reagent Indicator for pH

2. HAZARDS IDENTIFICATION

GHS Classification:
Hazard categories: Flammable Liquids: Flam. Liq. 2 . Specific Target Organ Toxicity - Single Exposure: STOT SE 3 Serious Eye Damage/Eye Irritation: Eye Irrit. 2A
GHS Label Elements:
DANGER

Hazard statements: Highly flammable liquid and vapour. Causes serious eye irritation. . May cause respiratory irritation.
Precautionary statements: Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. In case of fire: Use dry sand, extinquishing powder, foam or water for extinction. P403+P235 Store in a well-ventilated place. Keep cool. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS:
Health: 1
Flammability: 4
Reactivity: 0
Protective Equipment: X - See protective equipment, Section 8.

NFPA:
Health: 1
Flammability: 4
Reactivity: 0
Symbol: Not applicable

WHMIS Hazard Classification: Class B, Division 2 - Flammable liquids Class D, Division 2, Subdivision B - Toxic material (other toxic effects)
WHMIS Symbols: Flammable / Combustible Other Toxic Effects

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Isopropanol

CAS Number: 67-63-0
Chemical Formula: C_3H_8O
GHS Classification:
Percent Range (Trade Secret): 35.0 - 45.0
Percent Range Units: weight / weight
PEL: 400 ppm (980 mg/m^3)
TLV: 200 ppm (492 mg/m^3)

WHMIS Symbols: Flammable / CombustibleOther Toxic Effects

Phenolphthalein

CAS Number: 77-09-8
Chemical Formula: $C_{20}H_{14}O_4$
GHS Classification: Carc. 1B H350; Muta.2, H341; Repr. 2 H361f
Percent Range (Trade Secret): < 0.1
Percent Range Units: weight / weight
PEL: Not established
TLV: Not established

WHMIS Symbols: Other Toxic Effects

Potassium Hydroxide

CAS Number: 1310-58-3
Chemical Formula: KOH
GHS Classification: Acute Tox. 4 - Orl, H302; Skin Corr. 1A, H314; Met Corr. 1, H290; Aquatic Acute 3, H402
Percent Range (Trade Secret): < 0.1
Percent Range Units: weight / weight
PEL: 15 mg/m^3 as inhalable dust; 5 mg/m^3 as respirable dust
TLV: 10 mg/m^3 as inhalable dust; 3 mg/m^3 as respirable dust

WHMIS Symbols: CorrosiveAcute Poison

Methyl Red, Sodium Salt

CAS Number: 845-10-3
Chemical Formula: $C_{15}H_{15}N_3O_2Na$
GHS Classification: Carc. 2, H351; Muta. 2 H341; Aquatic Acute 1 H400; Aquatic Chronic 1 H410
Percent Range (Trade Secret): < 0.01
Percent Range Units: weight / weight
PEL: 15 mg/m^3 = de poussière inhalable; 5 mg/m^3 = poussière respirable
TLV: 10 mg/m^3 = de poussière inhalable; 3 mg/m^3 = poussière respirable

WHMIS Symbols: Not applicable

Hazardous Components according to GHS: No

Demineralized Water

CAS Number: 7732-18-5
Chemical Formula: H_2O
GHS Classification: Not a dangerous substance according to GHS.
Percent Range (Trade Secret): 50.0 - 60.0
Percent Range Units: weight / weight
PEL: Not established
TLV: Not established

WHMIS Symbols: Not applicable

Bromthymol Blue

CAS Number: 76-59-5
Chemical Formula: $C_{27}H_{28}Br_2O_5S$
GHS Classification: Non-hazardous
Percent Range (Trade Secret): < 0.1
Percent Range Units: weight / weight
PEL: Not established
TLV: Not established

WHMIS Symbols: Not applicable

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. Call physician if irritation develops.
Inhalation: Remove to fresh air.
Ingestion (First Aid): Give large quantities of water. Call physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Flammable Liquid
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. Dry chemical. Alcohol foam. Carbon dioxide
Extinguishing Media NOT To Be Used: Not applicable
Fire / Explosion Hazards: Flammable Liquid Do not expose to sparks or other ignition sources. May react violently with: strong oxidizers
Hazardous Combustion Products: Toxic fumes of: carbon monoxide, carbon dioxide.

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: 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. Dike the material to create a barrier to combustibles.
Clean-up Technique: If permitted by regulation, Eliminate all sources of ignition. Do not breathe the fumes. Cover with an inert material, such as sand. Use only non-sparking tools. Sweep up material. Incinerate material at a government approved hazardous waste facility. Otherwise, Dispose of in accordance with local, state and federal regulations or laws. Decontaminate the area of the spill with a soap 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: 129

7. HANDLING AND 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 away from: oxidizers sparks, flames and other ignition sources Protect from: heat Store between 10° and 25°C.
Flammability Class: Class IB

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product. Maintain adequate ventilation to keep vapor level below TWA for chemicals in this product.
Personal Protective Equipment:
Eye Protection: chemical splash goggles
Skin Protection: disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it. 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 sparks, flames and other ignition sources Keep away from: oxidizers
TLV: Not established
PEL: Not established
For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark green liquid
Physical State: Liquid
Molecular Weight: Not applicable
Odor: Alcoholic
Odor Threshold: Not available
pH: 8.7
Metal Corrosivity:
Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.
Steel: 0.003 in/yr
Aluminum: 0.000 in/yr
Specific Gravity/ Relative Density (water = 1; air =1): 0.922
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: -26°C; -15°F
Decomposition Temperature: Not determined
Boiling Point: 79°C; 174°F
Vapor Pressure: Not available
Vapor Density (air = 1): Not available
Evaporation Rate (water = 1): 5.45
Volatile Organic Compounds Content: Not available
Flammable Properties: Flammable Liquid
Flash Point: ~20.9°C; 70°F
Method: Closed cup
Flammability Limits:
Lower Explosion Limits: Not available
Upper Explosion Limits: Not available
Autoignition Temperature: Not available
Explosive Properties:
Not classified according to GHS criteria.
Oxidizing Properties:
Not classified according to GHS criteria.
Reactivity Properties:
Not classifed 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.
Not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Mechanical Impact: None reported
Static Discharge: Static discharge may ignite liquid.
Reactivity / Incompatibility: Incompatible with: oxidizers potassium-tert-butoxide cobalt chloride nitro compounds oleum
Hazardous Decomposition: Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.
Conditions to Avoid: Contact with heat, sparks, open flames or other ignition sources. Extreme temperatures

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 Practically Non-toxic Based on classification principles, the classification criteria are not met.
ATE (mix) Inhalation LC50 = 170.54 mg/L/4hr
Specific Target Organ Toxicity - Single Exposure (STOT-SE): Target Organs Central nervous system
Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met.
Skin Corrosion/Irritation: Mildly irritating to skin.
Eye Damage: Irritating to eyes.
Sensitization: Based on classification principles, the classification criteria are not met.
CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Based on classification principles, the classification criteria are not met.
Isopropanol - Cytogenetic analysis, rat, inhalation, 1030 µg/m3/16W (intermittent)
Isopropanol - Oral rat TDLo = 11340 mg/kg - Maternal effects - menstrual cycle changes or disorders; Oral rat TDLo 5040 mg/kg - Litter size
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: May cause: drowsiness dizziness incoordination giddiness depression headache abdominal pain nausea vomiting diarrhea blood pressure problems rapid pulse and respirations respiratory arrest coma death
Inhalation: Effects similar to those of ingestion. May cause: respiratory tract irritation
Skin Absorption: No effects anticipated
Chronic Effects: No effects anticipated
Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions Respiratory conditions

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product. Mobility in soil: No data available Based on classification principles, not classified as hazardous to the environment.
Ingredient Ecological Information: Isopropanol: 96 hr Pimephales promelas LC50 = 4200 mg/L; 48 hr Crustaceans LC50 = 1400 mg/L; Crangon crangon EC50 = 1099 mg/L; 72 hr Scenedesmus subspicatus ErC50 >1000mg/L.
CEPA Statement: Isopropanol: Persistent, not bioaccumulative or inherently toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D001
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.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Isopropanol Solution

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Hazard Class: 3

Subsidiary Risk: NA

ID Number: UN1219

Packing Group: II

T.D.G.:

Proper Shipping Name: Isopropanol Solution

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Hazard Class: 3.2

Subsidiary Risk: NA

UN Number/PIN: 1219

Packing Group: II

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Isopropanol Solution

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Hazard Class: 3

Subsidiary Risk: NA

ID Number: UN1219

Packing Group: II

I.M.O.:

Proper Shipping Name: Isopropanol Solution

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Hazard Class: 3

Subsidiary Risk: NA

ID Number: UN1219

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.

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): Not applicable

304 EHS RQ (40 CFR 355): Not applicable

Clean Water Act (40 CFR 116.4): Not applicable

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: All ingredients are listed.

New Zealand Inventory (NZIoC) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.
China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

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. 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. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. Vendor 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. In-house information.

Complete Text of H phrases referred to in Section 3: H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

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: 30
Month: May
Year: 2015

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. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

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.