

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

MSDS No: M00385

Material 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 No.: Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Hazard: Flammable. Causes irritation.
Date of MSDS Preparation:
Day: 3
Month: 05
Year: 2002

2. COMPOSITION / INFORMATION ON INGREDIENTS

Demineralized Water

CAS No.: 7732185
TSCA CAS Number: 7732-18-5
Percent Range: 45.0 - 55.0
Percent Range Units: volume / volume
LD50: None reported
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: No effects anticipated.

Other components, each

CAS No.: Not applicable
TSCA CAS Number: Not applicable
Percent Range: < 0.1
Percent Range Units: weight / weight
LD50: Not applicable
LC50: Not applicable
TLV: Not established
PEL: Not established
Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to the user of this product.

Isopropanol

CAS No.: 67630
TSCA CAS Number: 67-63-0
Percent Range: 45.0 - 55.0
Percent Range Units: volume / volume
LD50: Oral rat LD50 = 5045 mg/kg Oral Human LDLo = 2770 mg/kg
LC50: Inhalation rat LCLo = 12000 ppm/8hr
TLV: 400 ppm (500 ppm STEL)

PEL: 400 ppm

Hazard: Flammable. Causes moderate eye irritation.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Dark green liquid

Odor: Alcoholic

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION

FLAMMABLE LIQUID AND VAPOR

HMIS:

Health: 1

Flammability: 4

Reactivity: 0

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

NFPA:

Health: 1

Flammability: 3

Reactivity: 0

Symbol: Not applicable

Potential Health Effects:

Eye Contact: Causes moderate irritation

Skin Contact: May cause irritation

Skin Absorption: No effects anticipated

Target Organs: Not applicable

Ingestion: May cause: drowsiness dizziness incoordination giddiness depression headache abdominal pain nausea vomiting diarrhea blood pressure changes rapid pulse and respirations respiratory arrest coma death

Target Organs: Central nervous system

Inhalation: May cause: respiratory tract irritation Effects similar to those of ingestion.

Target Organs: Central nervous system

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

Chronic Effects: No effects anticipated

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: Contains: an experimental teratogen.

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 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: Flammable Liquid

Flash Point: 21°C; 70°F

Method: Closed cup

Flammability Limits:

Lower Explosion Limits: Not available

Upper Explosion Limits: Not available

Autoignition Temperature: Not available

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

Fire / Explosion Hazards: Flammable Liquid Do not expose to sparks or other ignition sources. May react violently with: strong oxidizers

Static Discharge: None reported.

Mechanical Impact: None reported

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

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.

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: 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: 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 an E.P.A. approved hazardous waste facility. 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.

Special Instructions (for accidental release): Product is regulated as RCRA hazardous waste.

304 EHS RQ (40 CFR 355): Not applicable

D.O.T. Emergency Response Guide Number: 129

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 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 / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. 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 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

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Dark green liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: Alcoholic

pH: 8.7

Vapor Pressure: Not available

Vapor Density (air = 1): Not available

Boiling Point: 79°C; 174°F

Melting Point: -26°C; -15°F

Specific Gravity (water = 1): 0.922
Evaporation Rate (water = 1): 5.45
Volatile Organic Compounds Content: Not available
Partition Coefficient (n-octanol / water): Not applicable
Solubility:
Water: Miscible
Acid: Miscible
Other: Not determined
Metal Corrosivity:
Steel: 0.003 in/yr
Aluminum: 0.000 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Contact with heat, sparks, open flames or other ignition sources. Extreme temperatures
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.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:
LD50: None reported
LC50: None reported
Dermal Toxicity Data: Isopropanol Skin rabbit LD50 = 12800 mg/kg
Skin and Eye Irritation Data: Isopropanol - Skin rabbit 500 mg MILD; Eye rabbit 100 mg/24 H MODERATE
Mutation Data: Isopropanol - Cytogenetic analysis, rat, inhalation, 1030 µg/m³/16W (intermittent)
Reproductive Effects Data: Isopropanol - Oral rat TDLo = 11340 mg/kg - Maternal effects - menstrual cycle changes or disorders; Oral rat TDLo 5040 mg/kg - Litter size
Ingredient Toxicological Data: Isopropanol Oral rat LD50 = 5045 mg/kg; Isopropanol Inhalation rat LCLo = 12000 ppm/8H

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: 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.

14. TRANSPORT INFORMATION

D.O.T.:
D.O.T. Proper Shipping Name: Isopropanol Solution
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DOT Hazard Class: 3
DOT Subsidiary Risk: NA
DOT ID Number: UN1219
DOT Packing Group: II
I.C.A.O.:

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

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ICAO Hazard Class: 3

ICAO Subsidiary Risk: NA

ICAO ID Number: UN1219

ICAO Packing Group: II

I.M.O.:

I.M.O. Proper Shipping Name: Isopropanol Solution

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I.M.O. Hazard Class: 3

I.M.O. Subsidiary Risk: NA

I.M.O. ID Number: UN1219

I.M.O. Packing Group: II

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.

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

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: Indicator for pH

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.

Legend:

NA - Not Applicable

ND - Not Determined

NV - Not Available

w/w - weight/weight

w/v - weight/volume

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.
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