SAFETY DATA SHEET HCC147011

1. IDENTIFICATION

Product identifier
Product Name Wide Range 4 pH Indicator Solution

Other means of identification
Product Code(s) 2329332

Safety data sheet number M00385

UN/ID no UN1219

Recommended use of the chemical and restrictions on use
Recommended Use Laboratory reagent. Indicator for pH.
Uses advised against None.
Restrictions on use None.

Details of the supplier of the safety data sheet

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

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

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word - Danger

Hazard statements
H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P235 - Keep cool
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Information
Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

Chemical Name	CAS No	Percent Range	HMRIC #

Isopropyl alcohol	67-63-0	30 - 50%	-
Potassium hydroxide	1310-58-3	<0.1%	-
Phenolphthalein	77-09-8	<0.1%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.

Ingestion IF SWALLOWED: Rinse Mouth. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Flammable properties
Highly flammable liquid and vapor.

Specific hazards arising from the chemical
Flammable liquid. Do not expose to sparks or other ignition sources. May react violently with. Strong oxidizers.

Hazardous combustion products Carbon monoxide, Carbon dioxide.

Protective equipment and precautions for firefighters
Containers can build up pressure if exposed to heat.

6. ACCIDENTAL RELEASE MEASURES

U.S. 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.

EC Notice Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

WHMIS Notice Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Remove all sources of ignition. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Avoid release to the environment. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Take necessary precautions in observance of pertinent physical hazards. Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

Emergency Response Guide Number 129

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Use spark-proof tools and explosion-proof equipment.

Flammability class Class IB

Incompatible materials Oxidizers. Potassium-tert-butoxide. Cobalt chloride. Nitro compounds. Oleum.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH

Isopropyl alcohol 30 - 50%	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m³ STEL: 500 ppm STEL: 1225 mg/m³
Potassium hydroxide <0.1%	Ceiling: 2 mg/m³	(vacated) Ceiling: 2 mg/m³	Ceiling: 2 mg/m³

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Isopropyl alcohol 30 - 50%	TWA: 200 ppm TWA: 492 mg/m³ STEL: 400 ppm STEL: 984 mg/m³	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 983 mg/m³ STEL: 500 ppm STEL: 1230 mg/m³	TWA: 200 ppm STEL: 400 ppm
Potassium hydroxide <0.1%	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³

Chemical Name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Isopropyl alcohol 30 - 50%	TWA: 200 ppm STEL: 400 ppm	STEL: 400 ppm TWA: 200 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	STEL: 400 ppm TWA: 200 ppm
Potassium hydroxide <0.1%	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³

Chemical Name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Isopropyl alcohol 30 - 50%	TWA: 400 ppm TWA: 985 mg/m³ STEL: 500 ppm STEL: 1230 mg/m³	TWA: 200 ppm STEL: 400 ppm	STEL: 500 ppm STEL: 1225 mg/m³ TWA: 400 ppm TWA: 980 mg/m³ SKN*
Potassium hydroxide <0.1%	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	Ceiling: 2 mg/m³

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear tight sealing safety goggles and/or face protection shield.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Gas Under Pressure	Not classified according to GHS criteria		
Appearance	aqueous solution	**Color**	dark green
Odor	Alcoholic	**Odor threshold**	No data available

Property	Values	Remarks • Method
Molecular weight	No data available	
pH	8.7	
Melting point/freezing point	-26 °C / -15 °F	
Boiling point / boiling range	79 °C / 174 °F	
Evaporation rate	5.45 (water = 1)	
Vapor pressure	19.427 mm Hg / 2.59 kPa at 25 °C / 77 °F	Estimation based on theoretical calculation
Vapor density (air = 1)	0.89 (air = 1)	
Specific gravity (water = 1 / air = 1)	0.922	
Partition Coefficient (n-octanol/water)	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other Information

Metal Corrosivity Not classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate	0.08 mm/yr / 0 in/yr
Aluminum Corrosion Rate	
Volatile Organic Compounds (VOC) Content	See ingredients information below.

Chemical Name	Volatile organic compounds (VOC) content
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	100%

Bulk density	Not applicable
Explosive properties	Not classified according to GHS criteria.
Explosion data	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Flammable properties	Highly flammable liquid and vapor.
GHS Flammability Classification	Liquid - Category 2, H225
Flammability Limit in Air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Flash point	~ 21 °C / 70 °F
Method	CC (closed cup)
Oxidizing properties	Not classified according to GHS criteria.
Reactivity propeties	Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

10. STABILITY AND REACTIVITY

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

Chemical stability
Stable under recommended storage conditions.

Special dangers of the product
None reported

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks. Contact with heat, sparks, open flames or other ignition sources. Take precautionary measures against static discharges.

Incompatible materials
Oxidizers. Potassium-tert-butoxide. Cobalt chloride. Nitro compounds. Oleum.

Hazardous Decomposition Products
Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.

Explosive properties
Not classified according to GHS criteria.

Upper explosion limit No data available

Lower explosion limit No data available

Autoignition temperature
No data available

Sensitivity to Static Discharge
Static discharge may ignite liquid.

Sensitivity to Mechanical Impact
None reported

11. TOXICOLOGICAL INFORMATION

NIOSH (RTECS) Number None reported

Information on Likely Routes of Exposure

Product Information	Causes mild skin irritation. Causes serious eye irritation.
Inhalation	Avoid breathing vapors or mists. May cause drowsiness or dizziness.
Eye contact	Contact with eyes may cause irritation. Severely irritating to eyes.
Skin contact	Causes mild skin irritation.
Ingestion	No known effect based on information supplied.
Aggravated Medical Conditions	Skin disorders. Eye disorders.
Toxicologically synergistic products	None known.
Toxicokinetics, metabolism and distribution	See ingredients information below.

Chemical Name	Toxicokinetics, metabolism and distribution
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Isopropanol is rapidly absorbed across the gastric mucosa and reaches a peak concentration approximately 30-120 minutes after ingestion. Isopropanol is primarily metabolized via alcohol dehydrogenase to acetone.
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	K^+ starts to be toxic at levels >; 200-250mg/L. Its concentration is regulated by renal excretion/reabsorption. The impact of the OH- on blood pH is regulated by the bicarbonate buffer system, respiration and renal compensation.
Phenolphthalein (<0.1%) CAS#: 77-09-8	Absorbed and eliminated by kidney. Excreted in bile, urine and milk..

Product Acute Toxicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	11,064.00 mg/kg

Ingredient Acute Toxicity Data

Oral Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat LD_{50}	4710 mg/kg	None reported	**Behavioral** General anesthetic	OECD (Organization for Economic Co-operation and Development)
Phenolphthalein (<0.1%) CAS#: 77-09-8	Rat LD_{50}	> 1000 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Human TD_{Lo}	223 mg/kg	None reported	**Behavioral** Hallucinations, Distorted perceptions **Cardiac** Pulse rate decrease with fall in BP **Vascular** BP lowering not characterized in autonomic section	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route Toxicological data for ingredients is not indicative of likely harm.

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rabbit LD_{50}	12800 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Dust/Mist) Exposure Route Toxicological data for ingredients is not indicative of likely harm.

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat LC_{50}	72.6 mg/L	4 hours	**Behavioral** General anesthetic **Lungs, Thorax, or Respiration** Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Human TC_{Lo}	35 mg/L	4 hours	**Cardiac** Pulse rate decrease with fall in BP **Lungs, Thorax, or Respiration** Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Human TC_{Lo}	150 mg/L	2 hours	**Biochemical** Enzyme inhibition, induction, or change in blood or tissue levels	RTECS (Registry of Toxic Effects of Chemical Substances)

				Other enzymes	

Inhalation (Gas) Exposure Route No data available

Product Skin Corrosion/Irritation Data
No data available.

Ingredient Skin Corrosion/Irritation Data

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Standard Draize Test	Rabbit	500 mg	None reported	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Standard Draize Test	Human	50 mg	24 hours	Corrosive to skin	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Serious Eye Damage/Eye Irritation Data
No data available.

Ingredient Eye Damage/Eye Irritation Data

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Standard Draize Test	Rabbit	100 mg	None reported	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Existing human experience	Human	None reported	None reported	Corrosive to eyes	ERMA (New Zealands Environmental Risk Management Authority)

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route No data available.

Respiratory Sensitization Exposure Route No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route Toxicological data for ingredients is not indicative of likely harm.

Chemical Name	Test method	Species	Results	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	None reported	Guinea pig	Not confirmed to be a skin sensitizer	OECD (Organization for Economic Co-operation and Development)
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Intracuteaneus Test	Guinea pig	Not confirmed to be a skin sensitizer	IUCLID (The International Uniform Chemical Information Database)

Respiratory Sensitization Exposure Route No data available.

Chronic Toxicity Information

Product Repeat Dose Toxicity Data

Oral Exposure Route No data available.

Dermal Exposure Route No data available.

Inhalation (Dust/Mist) Exposure Route No data available.

Inhalation (Vapor) Exposure Route No data available.

Inhalation (Gas) Exposure Route No data available.

Ingredient Repeat Dose Toxicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Chemical Name	CAS No	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol	67-63-0	-	Group 3	-	X
Potassium hydroxide	1310-58-3	-	-	-	-
Phenolphthalein	77-09-8	-	Group 2B	Reasonably Anticipated	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Not classifiable as a human carcinogen
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	X - Present

Product Carcinogenicity Data No data available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Carcinogenicity Data

Oral Exposure Route

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Product Germ Cell Mutagenicity*invitro*Data
No data available.

Ingredient Germ Cell Mutagenicity*invitro*Data

Chemical Name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Cytogenetic analysis	Rat ascites tumor	1800 mg/kg	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and sources for data**
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Cytogenetic analysis	Hamster ovary	12 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and sources for data**
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	Mutation in microorganisms	Escherichia coli	None reported	None reported	Negative test result for mutagenicity	No information available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Germ Cell Mutagenicity*invivo*Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route

Chemical Name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Cytogenetic analysis	Rat	0.00103 mg/L	16 weeks	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Reproductive Toxicity Data

Oral Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TD_{Lo}	32.4 mg/kg	None reported	**Effects on Embryo or Fetus** Fetal death	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TD_{Lo}	3500 mg/kg	None reported	**Effects on Fertility** Mating performance (e.g. # sperm positive females per # females mated; # copulations per # estrus cycles)	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TD_{Lo}	8000 mg/kg	9 days	**Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus)	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TC_{Lo}	7000 mg/L	19 days	**Specific Developmental Abnormalities** Musculoskeletal system	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TC_{Lo}	10000 mg/L	19 days	**Effects on Embryo or Fetus** Fetal death **Effects on Fertility** Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) Pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea)	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	Rat TC_{Lo}	3500 mg/L	19 days	**Effects on Embryo or Fetus**Fetotoxicity (except death e.g. stunted fetus)	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Gas) Exposure Route No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on the classification principles, not classified as hazardous to the environment.

Product Ecological Data

Aquatic toxicity

Fish No data available

Crustacea No data available

Algae No data available

Terrestrial toxicity

Soil No data available

Vertebrates No data available

Invertebrates No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	96 hours	*Pimephales promelas*	LC_{50}	4200 mg/L	IUCLID (The International Uniform Chemical Information Database)
Potassium hydroxide (<0.1%) CAS#: 1310-58-3	96 hours	*Gambusia affinis*	LC_{50}	80 mg/L	ERMA (New Zealands Environmental Risk Management Authority)
Chemical Name	**Exposure time**	**Species**	**Endpoint type**	**Reported dose**	**Key literature references and sources for data**
Phenolphthalein (<0.1%) CAS#: 77-09-8	96 hours	None reported	LC_{50}	31.18 mg/L	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

Crustacea

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	48 Hours	None reported	LC_{50}	1400 mg/L	IUCLID (The International Uniform Chemical Information Database)
Chemical Name	**Exposure time**	**Species**	**Endpoint type**	**Reported dose**	**Key literature references and sources for data**
Phenolphthalein (<0.1%) CAS#: 77-09-8	48 hours	None reported	LC_{50}	20.54 mg/L	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

Algae

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	72 Hours	*Scenedesmus subspicatus*	EC_{50}	> 1000 mg/L	IUCLID (The International Uniform Chemical Information Database)

Terrestrial toxicity

Soil No data available

Vertebrates No data available

Invertebrates No data available

Other Information

Chemical Name	CAS No	Category	Persistent	Bioaccumulation	Inherently Toxic to Aquatic Organisms
Isopropyl alcohol	67-63-0	-	-	-	-
Potassium hydroxide	1310-58-3	-	-	-	-
Phenolphthalein	77-09-8	-	-	-	-

Persistence and degradability
None known.

Product Biodegradability Data
If available, see ingredient data below.

Ingredient Biodegradability Data
Test data reported below

Chemical Name	Test method	Biodegradation	Exposure time	Results
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	None reported	95%	21 days	Readily biodegradable
Benzoic acid, 2-[[4-(dimethylamino) phenyl]azo]-, sodium salt (<0.01%) CAS#: 845-10-3	Estimation through BIOWIN v4.10 part of the Estimation Programs Interface (EPI) Suite™	None reported	None reported	Not readily biodegradable

Bioaccumulation
If available, see ingredient data below.

Product Bioaccumulation Data Test data reported below.

Ingredient Bioaccumulation Data No data available

Additional information

Product Information

Partition Coefficient (n-octanol/water) Not applicable

Ingredient Information

Chemical Name	Partition Coefficient (n-octanol/water)	Method
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	log K_{ow} = 0.05	No information available
Potassium hydroxide	log K_{ow} >= 0.65	No information available

(<0.1%) CAS#: 1310-58-3		

Mobility
Mobility in soil: High mobility. If available, see ingredient data below.

Product Information

Soil Organic Carbon-Water Partition Coefficient Not applicable

Ingredient Information

Chemical Name	Soil Organic Carbon-Water Partition Coefficient	Method
Isopropyl alcohol (30 - 50%) CAS#: 67-63-0	log K_{oc} = 0.54	No information available

Additional information

Water solubility

Product Information

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Ingredient Information

Chemical Name	Water solubility classification	Water solubility	Water solubility temperature °C	Water solubility temperature °F
Isopropyl alcohol CAS#: 67-63-0	Soluble	> 1000 mg/L	25 °C	77 °F
Potassium hydroxide CAS#: 1310-58-3	Completely soluble	1130000 mg/L	20 °C	68 °F
Phenolphthalein CAS#: 77-09-8	Insoluble	< 0.1 mg/L	25 °C	77 °F

Other adverse effects
Contains a substance with an endocrine-disrupting potential.

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Phenolphthalein (<0.1%) CAS#: 77-09-8	Group III Chemical	-	-

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Contaminated packaging Working in a well-ventilated area. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state, or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P.A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in

countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

US EPA Waste Number D001

Special instructions for disposal Incinerate material at an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN1219
Proper shipping name	Isopropanol Solution
Hazard Class	3
Packing Group	II
Emergency Response Guide Number	129

TDG

UN/ID no	UN1219
Proper shipping name	Isopropanol Solution
Hazard Class	3
Packing Group	II

IATA

UN/ID no	UN1219
Proper shipping name	Isopropanol Solution
Hazard Class	3
Packing Group	II
ERG Code	129

IMDG

UN/ID no	UN1219
Proper shipping name	Isopropanol Solution
Hazard Class	3
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 reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA	Complies
DSL/NDSL	Complies

TSCA- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL- Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies

TCSI	Complies
AICS	Complies
NZIoC	Complies

EINECS/ELINCS- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS- Japan Existing and New Chemical Substances
IECSC- China Inventory of Existing Chemical Substances
KECL- Korean Existing and Evaluated Chemical Substances
PICCS- Philippines Inventory of Chemicals and Chemical Substances
TCSI- Taiwan Chemical Substances Inventory
AICS- Australian Inventory of Chemical Substances
NZIoC- New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Isopropyl alcohol (CAS #: 67-63-0)	1.0
Phenolphthalein (CAS #: 77-09-8)	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Potassium hydroxide 1310-58-3	1000 lb	-	-	X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Potassium hydroxide 1310-58-3	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Phenolphthalein (CAS #: 77-09-8)	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isopropyl alcohol 67-63-0	X	X	X
Potassium hydroxide 1310-58-3	X	X	X
Phenolphthalein 77-09-8	X	-	-

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA and HMIS Classifications

NFPA	**Health hazards** - 2	**Flammability** - 4	**Instability** - 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** - 1	**Flammability** - 3	**Physical hazards** - 0	**Personal protection** - X - See section 8 for more information

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	*Immediately Dangerous to Life or Health*
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	*no data*

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By Hach Product Compliance Department

Issue Date 04-Oct-2016

Revision Date 04-Oct-2016

Revision Note None

Disclaimer

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.

End of Safety Data Sheet