

## MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment
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Health Hazard	2
Fire Hazard	3
Reactivity	0



See Section 8.

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product code:</b>	A1040
<b>Product Name:</b>	REAGENT ALCOHOL, DENATURED, REAGENT, ACS
<b>Chemical Name:</b>	No information available
<b>Synonyms:</b>	Reagent Alcohol, denatured Alcohol, denatured Ethyl alcohol, denatured
<b>Recommended use:</b>	Solvent.
<b>CAS #:</b>	Mixture
<b>Formula:</b>	No information available
<b>RTECS #</b>	KQ6300000 (Ethyl Alcohol) NT8050000 (Isopropyl Alcohol) PC1400000 (Methyl Alcohol)
<b>CI#:</b>	Not available
<b>Supplier:</b>	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
<b>Emergency Telephone Number:</b>	CHEMTREC: 1-800-424-9300
<b>Contact Person:</b>	Martin LaBenz (West Coast)
<b>Contact Person:</b>	Chris Terpak (East Coast)

### 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW			
DANGER FLAMMABLE! . Can burn with an invisible flame. WARNING! IRRITANT. Irritating to eyes. Irritating to skin. Contains Methyl alcohol which may cause blindness if swallowed.			
<b>Odor:</b> Alcoholic.	<b>Physical state:</b> Liquid.	<b>Appearance:</b> No information available	<b>Color:</b> Clear. Colorless.

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 2. HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS

**Principal Routes of Exposure:**

Ingestion. Skin. Eyes. Inhalation.

**Acute Potential Health Effects:****Skin Contact:**

Irritating to skin. Contains Methyl Alcohol. Methanol can be absorbed through the skin, producing systemic effects that include visual disturbances. Absorption through the skin may cause metabolic acidosis.

**Eye Contact:**

Causes eye irritation.

**Inhalation:**

May cause irritation of respiratory tract. Inhalation of vapors may cause dizziness or suffocation. May affect the nervous system. May cause central nervous system effects. May cause cardiovascular effects. It may affect the blood. It may affect the brain. May affect the urinary system. May affect the liver. It may affect the spleen. Contains Methyl alcohol which can cause metabolic acidosis. Contains Methyl alcohol. Exposure to high concentrations of Methyl alcohol vapor can cause blurred vision, impaired vision or blindness.

**Ingestion:**

Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhoea. May cause abdominal pain. May cause constipation. May cause central nervous system effects. May affect respiration. May affect the blood. May affect the liver. It may affect the kidneys. May affect the cardiovascular system. It may affect the brain. May affect the pancreas. Contains Methyl Alcohol which can affect the eyes and cause significant visual disturbances including blindness. Contains Methyl alcohol which can cause metabolic acidosis.

**Chronic Potential Health Effects:****Component**

Ethyl Alcohol 200 proof  
64-17-5 (90)

Methyl Alcohol  
67-56-1 (5)

Isopropyl Alcohol  
67-63-0 (5)

**Carcinogen Status:**

A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans by ACGIH  
Group 1 - Carcinogenic to Humans by IARC (for Ethyl alcohol in alcoholic beverages)  
Present by OSHA

No information available

Group 3 - Not classifiable as to its carcinogenicity to humans by IARC; A4 - Not classifiable as a Human Carcinogen by ACGIH

**Target Organs:**

Skin. Liver. Kidneys. Central nervous system. Nervous system. Heart. Eyes/vision.  
Optic nerve.

**Teratogenic Effects:**

Causes birth defects (teratogenic effects)

**Mutagenic Effects:**

May affect genetic material  
Experiments with bacteria and/or yeast have shown mutagenic effects

**Aggravated Medical Conditions:** No information available

See Section 11 for additional Toxicological Information

### POTENTIAL ENVIRONMENTAL EFFECTS

No information available

**Product code:** A1040

**Product name:** REAGENT ALCOHOL,  
DENATURED, REAGENT, ACS

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Ethyl Alcohol 200 proof	64-17-5	90
Methyl Alcohol	67-56-1	5
Isopropyl Alcohol	67-63-0	5

### 4. FIRST AID MEASURES

- General Advice:** Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.
- Eye Contact:** Flush eye with water for 15 minutes. Get medical attention.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.
- Notes to Physician:** For Methyl Alcohol Ingestion:
1. Support vital functions, correct for dehydration and shock, and manage fluid balance.
  2. The currently recommended medical management of Methanol poisoning includes the following methods:
    - a. Emptying the stomach by gastric lavage. It is useful if initiated within < 1 of ingestion.
    - b. Correct metabolic acidosis with intravenous administration of sodium bicarbonate, adjusting the administration rate according to repeated and frequent measurement of acid/base status.
    - c. Administer ethanol (orally or by IV (intravenously)) or Fomepizole (4-methylpyrazole or Antizol)) therapy by IV (intravenously) as an antidote to inhibit the formation of toxic metabolites. Adjunct therapy with Leucorvin followed by Folate can also be initialized. Please note that if Ethanol therapy is used, monitor blood glucose, especially in children. Ethanol can cause hypoglycemia.
    - d. When patients are diagnosed and treated early in the course with the above methods, hemodialysis may be avoided if fomepizole or ethanol therapy is effective, and the metabolic acidosis is corrected, and no renal failure is present. However, once severe acidosis and renal failure occurred, hemodialysis is necessary. Hemodialysis is effective in removing Methyl alcohol and toxic metabolites, and correcting metabolic acidosis

### 5. FIRE-FIGHTING MEASURES

#### Flammable Properties

<b>Flashpoint (°C/°F):</b>	12-14 °C/53.6-57.2 °F 15.8-18 °C/60.44-64.4 °F
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<b>Tested according to:</b> Closed cup Open cup
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<b>Lower Explosion Limit (%):</b>	3.3%
<b>Upper Explosion Limit (%):</b>	19%

<b>Autoignition Temperature (°C/°F):</b>	363-426 °C/685.4-798.8 °F
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**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol-resistant foam. Water spray.

**Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream as it may scatter and spread fire.

**Hazardous Combustion Products:** Carbon monoxide; Carbon dioxide

**Specific hazards:** Flammable. May be ignited by heat, sparks or flames. Material can burn with invisible flame. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating, corrosive and/or toxic gases.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Specific Methods:** Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

### Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

### Methods for Cleaning Up:

Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Handling

**Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

**Safe Handling Advice:**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

**Storage****Technical Measures/Storage Conditions:**

Hygroscopic. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Sensitive to light. Store in light-resistant containers. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

**Incompatible Products:**

Oxidizing agents. Acids. Alkali Metals. Halogens. caustics. isocyanates. Metals. Bases. Acid anhydrides. Acid chlorides. Hydrazine. Potassium t-butoxide.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

**Personal Protective Equipment**

**Eye protection:** Goggles. Safety glasses with side-shields.

**Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

**National occupational exposure limits****United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Ethyl Alcohol 200 proof - 64-17-5	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	1000 ppm STEL	None
Methyl Alcohol - 67-56-1	200 ppm TWA 260 mg/m <sup>3</sup> TWA	200 ppm TWA 260 mg/m <sup>3</sup> TWA 250 ppm STEL 325 mg/m <sup>3</sup> STEL	250 ppm STEL 200 ppm TWA	Not determined
Isopropyl Alcohol - 67-63-0	400 ppm TWA 980 mg/m <sup>3</sup> TWA	400 ppm TWA 980 mg/m <sup>3</sup> TWA 500 ppm STEL 1225 mg/m <sup>3</sup> STEL	400 ppm STEL 200 ppm TWA	None

**Canada**

Components	Alberta	British Columbia	Ontario	Quebec
Ethyl Alcohol 200 proof 64-17-5	1000 ppm TWA 1880 mg/m <sup>3</sup> TWA	1000 ppm STEL	1000 ppm STEL	1000 ppm TWAEV 1880 mg/m <sup>3</sup> TWAEV
Methyl Alcohol 67-56-1	200 ppm TWA 262 mg/m <sup>3</sup> TWA 250 ppm STEL 328 mg/m <sup>3</sup> STEL	200 ppm TWA 250 ppm STEL	200 ppm TWA	200 ppm TWAEV 262 mg/m <sup>3</sup> TWAEV 250 ppm STEV 328 mg/m <sup>3</sup> STEV

Isopropyl Alcohol 67-63-0	200 ppm TWA 492 mg/m <sup>3</sup> TWA 400 ppm STEL 984 mg/m <sup>3</sup> STEL	200 ppm TWA 400 ppm STEL	200 ppm TWA	400 ppm TWAEV 985 mg/m <sup>3</sup> TWAEV 500 ppm STEV 1230 mg/m <sup>3</sup> STEV
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### Australia and Mexico

Components	Australia	Mexico
Ethyl Alcohol 200 proof 64-17-5	1880 mg/m <sup>3</sup> TWA 1000 ppm TWA	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA
Methyl Alcohol 67-56-1	250 ppm STEL 328 mg/m <sup>3</sup> STEL 200 ppm TWA 262 mg/m <sup>3</sup> STEL	200 ppm TWA 260 mg/m <sup>3</sup> TWA 250 ppm STEL 310 mg/m <sup>3</sup> STEL
Isopropyl Alcohol 67-63-0	500 ppm STEL 1230 mg/m <sup>3</sup> STEL 400 ppm TWA 983 mg/m <sup>3</sup> TWA	400 ppm TWA 980 mg/m <sup>3</sup> TWA 500 ppm STEL 1225 mg/m <sup>3</sup> STEL

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical state:

Liquid.

### Appearance:

No information available

### Color:

Clear. Colorless.

### Odor:

Alcoholic.

### Taste

Pungent. Burning.

### Molecular/Formula weight:

No information available

### Flash point (°C):

12

### Lower Explosion Limit (%):

3.3%

### Upper Explosion Limit (%):

19%

### Autoignition Temperature (°C/°F):

363-426 °C/685.4-798.8 °F

### pH:

No information available

### Melting point/range(°C/°F):

-114.1-117.3 °C/-173.38-179.14 °F

### Boiling point/range(°C/°F):

78-79 °C/172.4-174.2 °F

### Decomposition temperature(°C/°F):

No information available

### Specific gravity:

0.789-0.81 @ 20 °C

### Density (g/cm<sup>3</sup>):

No information available

### Bulk density:

No information available

### Vapor pressure @ 20°C (kPa):

5.7-5.9

### Evaporation rate:

No information available

### Vapor density:

1.59

### VOC content (g/L):

789-810

### Odor threshold (ppm):

5-10 (recognition)

84 (tolerance)

### Partition coefficient

(n-octanol/water):

No information available

### Miscibility:

Miscible with water

Miscible with Acetone

Miscible with Ether

Miscible with Benzene

Miscible with glacial Acetic Acid

Miscible with many organic solvents

### Solubility:

Very soluble in water

## 10. STABILITY AND REACTIVITY

### Stability:

Stable at normal conditions

### Conditions to avoid:

Heat. Ignition sources. Incompatible materials.

### Materials to avoid:

Oxidising agents. Metals. Alkali metals. Halogens. isocyanates. Hydrazine. Acid anhydrides. caustics. Acid chlorides. Bases. Acids. Potassium t-butoxide.

<b>Hazardous decomposition products:</b>	Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.
<b>Possibility of Hazardous Reactions:</b>	It can react vigorously, violently or explosively with oxidizers When Ethanol comes in contact with Platinum or Sodium, it liberates flammable hydrogen gas It can react vigorously or explosively with acid hydrides or acid chlorides It reacts with alkali metals to liberate flammable hydrogen gas It reacts with acetyl bromide to evolve hydrogen bromide It reacts with ammonia + silver nitrate to form silver nitride and silver fulminate Ethyl alcohol can react with freshly cut/etched/scratched aluminum with the evolution of heat and release of hydrogen gas. The Ethyl alcohol has to be on the aluminum surface as it is being cut/scratched/etched
<b>Polymerization:</b>	Hazardous polymerisation does not occur
<b>Corrosivity:</b>	No information available
<b>Special Remarks on Corrosivity:</b>	No information available

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

##### *Ethyl Alcohol 200 proof - 64-17-5*

**LD50/oral/rat** = 7060 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 3450 mg/kg  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = 124.7 mg/L Inhalation LC50 Rat 4 h  
**LC50/inhalation/mouse** = 39000 mg/m<sup>3</sup> 4 h  
**Other LD50 or LC50 information =**  
 5900 mg/m<sup>3</sup> Inhalation LC50 Rat 6 h  
 20000 ppm Inhalation LC50 Rat 10 h  
 5560 mg/kg Oral LD50 Guinea Pig  
 6300 mg/kg Oral LD50 Rabbit

##### *Methyl Alcohol - 67-56-1*

**LD50/oral/rat** = 5628 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 5800 mg/kg  
**LD50/dermal/rabbit** = 15800 mg/kg Dermal LD50 Rabbit  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = 64000 ppm Inhalation LC50 Rat 4 h  
 83.2 mg/L Inhalation LC50 Rat 4 h  
**LC50/inhalation/mouse** = 41000 ppm 6 h  
**Other LD50 or LC50 information =**  
 14200 mg/kg Oral LD50 Rabbit  
 7500 mg/kg Oral LD50 Dog  
 >5000 mg/kg Oral LD50 Pig  
 7000 mg/kg Oral LD50 Monkey

##### *Isopropyl Alcohol - 67-63-0*

**LD50/oral/rat** = 4396 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 3600 mg/kg (RTECS)

**LD50/dermal/rabbit** = 12870 mg/kg Dermal LD50 Rabbit  
**LD50/dermal/rat** = 12800 mg/kg Dermal LD50 Rat  
**LC50/inhalation/rat** = 72.6 mg/L Inhalation LC50 Rat 4 h  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** =  
LD50 oral 6410 mg/kg [Rabbit]

### Product Information

**LC50/inhalation/rat** = No information available  
**LC50/Inhalation/mouse** = No information available  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LD50/oral/mouse** = No information available

**LD50/oral/rat** = No information available

### Local Effects

**Skin irritation:** Irritating to skin. Moderate skin irritation.

**Eye irritation:** Irritating to eyes. Moderate eye irritation.

**Inhalation:** May cause irritation of respiratory tract. Symptoms may include coughing and shortness of breath. May cause nausea, and headache. It may affect behavior/central nervous system (ataxia, general anesthetic, drowsiness). May affect respiration (respiratory depression). Inhalation of high concentrations of vapor may cause anesthetic effects. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May affect the brain. Contains Methyl alcohol. Exposure to high concentrations of Methyl alcohol vapor or mist can cause blurred vision, impaired vision or blindness, and metabolic acidosis.

**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause gastritis. May cause loss of appetite. May cause flushed skin. May affect the cardiovascular system (change in heart rate). May affect the cardiovascular system (hypotension or hypertension, tachycardia, dysrhythmias). It may affect behavior/central nervous system (excitation, mild euphoria, excessive talking, fatigue, headache, dizziness, drowsiness, staggering gait, ataxia, hallucinations, slurred speech, amnesia, confusion, release of inhibitions, aggressive behavior, convulsions, coma). May affect behavior/central nervous system (tremors). May affect respiration (dyspnea, respiratory depression). It may affect the brain. May affect liver. May affect the blood. May affect urinary system (kidneys). Contains Methyl alcohol which can affect vision and cause blindness if swallowed. Contains Methyl alcohol which can cause metabolic acidosis. It may affect the pancreas (pancreatitis). May cause hyperglycemia.

**Sensitization:** No information available

### Chronic Toxicity



**Chronic Toxicity**

Prolonged or repeated skin contact may cause dermatitis, and dryness and cracking of the skin.. Prolonged or repeated exposure by inhalation or ingestion will have effects similar to those of acute inhalation or ingestion. Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect the brain. Prolonged or repeated ingestion may affect metabolism (cause anorexia, weight loss). Prolonged or repeated ingestion may affect the liver (fatty liver degeneration, cirrhosis of the liver. Prolonged or repeated ingestion may affect the cardiovascular system. Prolonged or repeated ingestion may affect the kidneys. Prolonged or repeated ingestion may affect the blood (changes in serum composition). Prolonged or repeated inhalation may affect the brain. Prolonged or repeated inhalation may affect the blood (changes in serum composition, pigmented or nucleated red blood cells). Prolonged or repeated inhalation may affect the spleen. Prolonged or repeated inhalation may affect the adrenal gland. Prolonged or repeated inhalation may affect the thymus gland.

**Carcinogenic effects:**

May cause cancer based on animal test data.

Components	NTP	IARC	OSHA HCS - Carcinogens	ACGIH - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Ethyl Alcohol 200 proof	Not listed	Group 1 - Monograph 100E [in preparation] in alcoholic beverages Monograph 96 [in preparation] in alcoholic beverages	Present	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Not listed	Not listed
Methyl Alcohol	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Isopropyl Alcohol	Not listed	Group 3 - Monograph 71 [1999] Supplement 7 [1987] Monograph 15 [1977]	Not listed	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed

**Mutagenic Effects:**

May affect genetic material  
Experiments with bacteria and/or yeast have shown mutagenic effects

**Reproductive Effects:**

Causes adverse reproductive effects

**Teratogenic Effects:**

Causes birth defects (teratogenic effects)

**Target Organs:**

Skin. Liver. Kidneys. Central nervous system. Nervous system. Heart. Eyes/vision. Optic nerve.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

**Toxicity to terrestrial and aquatic plants and animals:**

Information given is based on data on the components and the ecotoxicology of similar products

**Ecotoxicity effects:**

Aquatic environment.

**Aquatic toxicity:**

Ethyl Alcohol 200 proof - 64-17-5

**Freshwater Fish Species Data:** 12.0 - 16.0 mg/L LC50 Oncorhynchus mykiss 96 h static 1  
13400 - 15100 mg/L LC50 Pimephales promelas 96 h flow-through 1  
100 mg/L LC50 Pimephales promelas 96 h static 1

**Water Flea Data:** 9268 - 14221 mg/L LC50 Daphnia magna 48 h  
10800 mg/L EC50 Daphnia magna 24 h  
2 mg/L EC50 Daphnia magna 48 h

Methyl Alcohol - 67-56-1

**Freshwater Fish Species Data:** 13500 - 17600 mg/L LC50 Lepomis macrochirus 96 h flow-through 1  
18 - 20 mL/L LC50 Oncorhynchus mykiss 96 h static 1  
19500 - 20700 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1  
28200 mg/L LC50 Pimephales promelas 96 h flow-through 1  
100 mg/L LC50 Pimephales promelas 96 h static 1

Isopropyl Alcohol - 67-63-0

**Freshwater Algae Data:** 1000 mg/L EC50 Desmodesmus subspicatus 72 h  
1000 mg/L EC50 Desmodesmus subspicatus 96 h

**Freshwater Fish Species Data:** 11130 mg/L LC50 Pimephales promelas 96 h static 1  
9640 mg/L LC50 Pimephales promelas 96 h flow-through 1  
1400000 µg/L LC50 Lepomis macrochirus 96 h 1

**Water Flea Data:** 13299 mg/L EC50 Daphnia magna 48 h

**Mobility:** No information available

**Persistence and degradability:** No information available

**Bioaccumulative potential:** Low No information available

### 13. DISPOSAL CONSIDERATIONS

#### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

#### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethyl Alcohol 200 proof	None	None	None	None
Methyl Alcohol	None	None	None	U154 Ignitable waste
Isopropyl Alcohol	None	None	None	None

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s. (denatured ethanol)  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** Not applicable  
**Marine Pollutant:** No data available  
**ERG No:** 127  
**DOT RQ (lbs):** No information available

#### TDG (Canada)

**Product code:** A1040

**Product name:** REAGENT ALCOHOL,  
DENATURED, REAGENT, ACS

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**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** No information available  
**Description:** No information available

#### ADR

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

#### IMO / IMDG

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**EMS:** F-E  
**MFAG:** No information available  
**Maximum Quantity:** No information available

#### RID

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** 3  
**Classification Code:** No information available  
**Description:** No information available

#### ICAO

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** No information available  
**Description:** No information available

#### IATA

**UN-No:** UN1987  
**Proper Shipping Name:** Alcohols, n.o.s.  
**Hazard Class:** 3  
**Packing Group:** II  
**Subsidiary Risk:** No information available  
**ERG Code:** 3L  
**Description:** No information available

## 15. REGULATORY INFORMATION

## International Inventories

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Ethyl Alcohol 200 proof</i>	Present	Present	KE-13217	2-202	Present	Present	200-578-6
<i>Methyl Alcohol</i>	Present	Present	KE-23193	2-201	Present	Present	200-659-6
<i>Isopropyl Alcohol</i>	Present	Present	KE-29363	2-207	Present	Present	200-661-7

## U.S. Regulations

### *Ethyl Alcohol 200 proof*

- Massachusetts RTK:** Present
- New Jersey RTK Hazardous Substance List:** Present
- Pennsylvania RTK:** Present
- RI RTK - Hazardous Substances List:** Present
- Minnesota - Hazardous Substance List:** Present
- Louisiana Reportable Quantity List for Pollutants:** Present (listed as Volatile Organic Compounds)
- California Directors List of Hazardous Substances:** Present
- FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1293

### *Methyl Alcohol*

- Massachusetts RTK:** Present
- New Jersey RTK Hazardous Substance List:** Present
- New Jersey (EHS) List:** Present
- New Jersey - Discharge Prevention - List of Hazardous Substances** Present
- Pennsylvania RTK:** Environmental hazard
- Pennsylvania RTK - Environmental Hazard List** Present
- Minnesota - Hazardous Substance List:** Present
- New York Release Reporting - List of Hazardous Substances:**  
5000 lb RQ  
1 lb RQ
- Louisiana Reportable Quantity List for Pollutants:** 5000lbfinal RQ  
2270kgfinal RQ
- California Directors List of Hazardous Substances:** Present

### *Isopropyl Alcohol*

- Massachusetts RTK:** Present
- New Jersey RTK Hazardous Substance List:** Present
- New Jersey (EHS) List:** Present
- New Jersey - Discharge Prevention - List of Hazardous Substances** Present
- Pennsylvania RTK:** Environmental hazard
- Pennsylvania RTK - Environmental Hazard List** Present
- RI RTK - Hazardous Substances List:** Present
- Minnesota - Hazardous Substance List:** Present
- California Directors List of Hazardous Substances:** Present

## California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

### **Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

### **Chemicals Known to the State of California to Cause Reproductive Toxicity:**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Ethyl Alcohol 200 proof</i>	Not Listed	developmental toxicity (Ethyl alcohol in alcoholic beverages)	Not Listed	Not Listed
<i>Methyl Alcohol</i>	Not Listed	developmental	Not Listed	Not Listed
<i>Isopropyl Alcohol</i>	Not Listed	Not Listed	Not Listed	Not Listed

## CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Ethyl Alcohol 200 proof</i>	None	None	None	None	None
<i>Methyl Alcohol</i>	5000 lb final RQ 2270 kg final RQ	None	None	None	1.0 % de minimis concentration
<i>Isopropyl Alcohol</i>	None	None	None	None	1.0 % de minimis concentration

#### U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Ethyl Alcohol 200 proof</i>	Not Applicable	Not Applicable
<i>Methyl Alcohol</i>	Not Applicable	Not Applicable
<i>Isopropyl Alcohol</i>	Not Applicable	12/15/1986 12/15/1996

#### Canada

##### WHMIS hazard class:

B2 Flammable liquid  
D2B Toxic materials  
D1B Toxic materials  
D2A Very toxic materials

##### Ethyl Alcohol 200 proof

B2 D2B

##### Methyl Alcohol

B2 D1B D2A D2B including 28%

##### Isopropyl Alcohol

B2 D2B including 70%

##### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
<i>Ethyl Alcohol 200 proof</i>	0.1 %
<i>Methyl Alcohol</i>	1 %
<i>Isopropyl Alcohol</i>	1 %

#### Inventory

Components	Canada (DSL)	Canada (NDSL)
<i>Ethyl Alcohol 200 proof</i>	Present	Not Listed
<i>Methyl Alcohol</i>	Present	Not Listed
<i>Isopropyl Alcohol</i>	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
<i>Ethyl Alcohol 200 proof</i>	Not listed	Not listed
<i>Methyl Alcohol</i>	Not listed	Not listed
<i>Isopropyl Alcohol</i>	Not listed	Not listed

#### EU Classification

**R-phrase(s)**

R11 - Highly flammable.

R68/20/21/22 - Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

**S -phrase(s)**

S 7 - Keep container tightly closed.

S16 - Keep away from sources of ignition - No smoking.

Components	Classification	Safety Phrases
Ethyl Alcohol 200 proof	F; R11	S7 S16
Methyl Alcohol	C>=20% F; R11 T; R23/24/25-39/23/24/25 C>=3%<20% Xn; R20/21/22 C>=3%<10% Xn; R68/20/21/22	S1/2 S7 S16 S36/37 S45
Isopropyl Alcohol	F; R11 Xi; R36 R67	S2 S7 S16 S24/25 S26

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

F - Highly flammable.

Xn - Harmful.

Xn



F

**16. OTHER INFORMATION**

The MSDS format complies with ANSI Z400.1-2004 standards.

<b>Preparation Date</b>	18-Jun-2012
<b>Reason for revision:</b>	Not applicable
<b>Prepared by:</b>	Sonia Owen
<b>Literature reference:</b>	No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

