



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; font-weight: bold;">2</td> </tr> <tr> <td style="background-color: #FFCCCC;">Fire Hazard</td> <td style="text-align: center; font-weight: bold;">3</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; font-weight: bold;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	3	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	3							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/ Trade Name	Reagent Alcohol, 50% (v/v; 1+1) solution	Catalog Number(s). R-116 CAS# Mixture. RTECS Not applicable. TSCA TSCA 8(b) inventory: Water; Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol CI# Not applicable.
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Commercial Name(s)	Not available.	
Synonym	Not available.	
Chemical Name	Not applicable.	
Chemical Family	Aliphatic alcohol or glycol. (Solvent.)	
Chemical Formula	Not applicable.	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Water	7732-18-5				50
2) Ethyl alcohol 200 Proof	64-17-5	1900			45
3) Isopropyl alcohol	67-63-0	980	1225		2.5
4) Methyl alcohol	67-56-1	200	250		2.5
Toxicological Data on Ingredients	Ethyl alcohol 200 Proof: ORAL (LD50): Acute: 7060 mg/kg [Rat]. 3450 mg/kg [Mouse]. VAPOR (LC50): Acute: 20000 ppm 8 hours [Rat]. 39000 mg/m ³ 4 hours [Mouse]. Isopropyl alcohol: ORAL (LD50): Acute: 5045 mg/kg [Rat]. 3600 mg/kg [Mouse]. 6410 mg/kg [Rabbit]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit]. Methyl alcohol: ORAL (LD50): Acute: 5628 mg/kg [Rat]. DERMAL (LD50): Acute: 15800 mg/kg [Rabbit]. VAPOR (LC50): Acute: 64000 ppm 4 hours [Rat].				

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, . Slightly hazardous in case of skin contact (permeator).
Potential Chronic Health Effects	<p>Slightly hazardous in case of skin contact (sensitizer).</p> <p>CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH [Ethyl alcohol 200 Proof]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Isopropyl alcohol].</p> <p>MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Ethyl alcohol 200 Proof]. Mutagenic for bacteria and/or yeast. [Ethyl alcohol 200 Proof]. Mutagenic for mammalian somatic cells. [Methyl alcohol]. Mutagenic for bacteria and/or yeast. [Methyl alcohol].</p> <p>TERATOGENIC EFFECTS: Classified PROVEN for human [Ethyl alcohol 200 Proof]. Classified POSSIBLE for human [Methyl alcohol].</p> <p>DEVELOPMENTAL TOXICITY: Classified Development toxin [PROVEN] [Ethyl alcohol 200 Proof]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE] [Ethyl alcohol 200 Proof].</p> <p>The substance is toxic to blood, liver, eyes, central nervous system (CNS). The substance may be toxic to kidneys, the reproductive system, heart, brain, peripheral nervous system, upper respiratory tract, skin, optic nerve. Repeated or prolonged exposure to the substance can produce target organs damage.</p>

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion	<p>For Methyl Alcohol: Notes to Physician:</p> <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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 as an antidote to inhibit the formation of toxic metabolites. Adjunct therapy with Leucorvin followed by Folate can also be initiallized. Please note that if Ethanol therapy is used, monitor blood glucose, especially in children. Ethanol can cause hypoglycemia. d. If 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 has corrected the metabolic acidosis, and no renal failure is present. However, once severe acidosis and renal failure occurred, however, hemodialysis is necessary. Hemodialysis is effective in removing Methyl alcohol and toxic metabolites, and correcting metabolic acidosis.

Section 5. Fire and Explosion Data

Flammability of the Product	Flammable.
Auto-Ignition Temperature	The lowest known value is 363°C (685.4°F) (Ethyl alcohol 200 Proof).
Flash Points	CLOSED CUP: 23°C (73.4°F) - 26 C.
Flammable Limits	The greatest known range is LOWER: 6% UPPER: 36.5% (Methyl alcohol)
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials. Non-flammable in presence of shocks, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis.
Explosion Hazards in Presence of Various Substances	Slightly explosive in presence of open flames and sparks, of acids. Non-explosive in presence of shocks.
Fire Fighting Media and Instructions	Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.
Special Remarks on Fire Hazards	Containers should be grounded. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME Vapor may travel considerable distance to source of ignition and flash back. May form explosive mixtures with air. Contact with Bromine pentafluoride is likely to cause fire or explosion. Ethanol ignites on contact with chromyl chloride. Ethanol ignites on contact with iodine heptafluoride gas. It ignites than explodes upon contact with nitrosyl perchlorate. Addition of platinum black catalyst caused ignition. (Ethyl alcohol 200 Proof)
Special Remarks on Explosion Hazards	Ethanol has an explosive reaction with the oxidized coating around potassium metal. Ethanol ignites and then explodes on contact with acetic anhydride + sodium hydrosulfate (ignites and may explode), disulfuric acid + nitric acid, phosphorous(III) oxide platinum, potassium-tert-butoxide+ acids. Ethanol forms explosive products in reaction with the following compound : ammonia + silver nitrate (forms silver nitride and silver fulminate), iodine + phosphorus (forms ethane iodide), magnesium perchlorate (forms ethyl perchlorate), mercuric nitrate, nitric acid + silver (forms silver fulminate) silver nitrate (forms ethyl nitrate) silver(I) oxide + ammonia or hydrazine (forms silver nitride and silver fulminate), sodium (evolves hydrogen gas). Sodium Hydrazide + alcohol can produce an explosion. Alcohols should not be mixed with mercuric nitrate, as explosive mercuric fulminate may be formed. May form explosive mixture with manganese perchlorate + 2,2-dimethoxypropane. Addition of alcohols to highly concentrate hydrogen peroxide forms powerful explosives. Explodes on contact with calcium hypochlorite Vapor may explode if ignited in an enclosed area. Containers may explode when heated or involved in a fire. Vapors may form explosive mixtures with air. (Ethyl alcohol 200 Proof)

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids, alkalis.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	<p>Ethyl alcohol 200 Proof TWA: 1900 (mg/m³) from OSHA (PEL) [United States] TWA: 1000 (ppm) from OSHA (PEL) [United States] TWA: 1900 (mg/m³) from NIOSH [United States] TWA: 1000 (ppm) from NIOSH [United States] TWA: 1000 (ppm) [United Kingdom (UK)] TWA: 1920 (mg/m³) [United Kingdom (UK)] TWA: 1000 STEL: 1250 (ppm) [Canada]</p> <p>Isopropyl alcohol TWA: 983 STEL: 1230 (mg/m³) [Australia] TWA: 200 STEL: 400 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 980 STEL: 1225 (mg/m³) from NIOSH TWA: 400 STEL: 500 (ppm) from NIOSH TWA: 400 STEL: 500 (ppm) [United Kingdom (UK)] TWA: 999 STEL: 1259 (mg/m³) [United Kingdom (UK)] TWA: 400 STEL: 500 (ppm) from OSHA (PEL) [United States] TWA: 980 STEL: 1225 (mg/m³) from OSHA (PEL) [United States]</p> <p>Methyl alcohol TWA: 200 from OSHA (PEL) [United States] TWA: 200 STEL: 250 (ppm) from ACGIH (TLV) [United States] [1999] STEL: 250 from NIOSH [United States] TWA: 200 STEL: 250 (ppm) from NIOSH SKIN TWA: 200 STEL: 250 (ppm) [Canada]</p> <p>Consult local authorities for acceptable exposure limits.</p>

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Alcohol like.
Molecular Weight	Not applicable.	Taste	Not available.
pH (1% soln/water)	Not available	Color	Clear Colorless.
Boiling Point	The lowest known value is 64.5°C (148.1°F) (Methyl alcohol). Weighted average: 89°C (192.2°F)		
Melting Point	May start to solidify at -88.5°C (-127.3°F) based on data for: Isopropyl alcohol. Weighted average: -112°C (-169.6°F)		
Critical Temperature	The lowest known value is 235°C (455°F) (Isopropyl alcohol).		
Specific Gravity	0.916 - 0.94(Water = 1)		
Vapor Pressure	The highest known value is 12.3 kPa (@ 20°C) (Methyl alcohol). Weighted average: 4.13 kPa (@ 20°C)		
Vapor Density	The highest known value is 2.07 (Air = 1) (Isopropyl alcohol). Weighted average: 1.1 (Air = 1)		

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Volatility	100% (w/w). (Isopropyl alcohol.)
Odor Threshold	The highest known value is 100 ppm (Ethyl alcohol 200 Proof) Weighted average: 96.1 ppm
Water/Oil Dist. Coeff.	The product is equally soluble in oil and water.
Ionicity (in Water)	Non-ionic.
Dispersion Properties	See solubility in water, methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in cold water, hot water, n-octanol. Soluble in methanol, diethyl ether, acetone.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources (flames, sparks, static), incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, metals, acids, alkalis.
Corrosivity	Non-corrosive in presence of glass.

Special Remarks on Reactivity	<p>Ethanol rapidly absorbs moisture from the air. Can react vigorously with oxiders.</p> <p>The following oxidants have been demonstrated to undergo vigorous/explosive reaction with ethanol: barium perchlorate, bromine pentafluoride, calcium hypochlorite, chlorate, chloryl perchlorate, chromium trioxide, chromyl chloride, dioxygen difluoride, disulfuryl difluoride, fluorine nitrate, hydrogen peroxide, iodine heptafluoride, nitric acid, nitrosyl perchlorate, perchloric acid, permanganic acid, peroxodisulfuric acid, potassium dioxide, potassium perchlorate, potassium permanganate, ruthenium(VIII) oxide, silver perchlorate, silver peroxide, uranium hexafluoride, uranyl perchlorate, chlorine.</p> <p>Ethanol reacts violently/expodes with the following compounds: acetyl bromide (evolves hydrogen bromide) acetyl chloride, aluminum sesquibromide ethylate, active metals, aluminum, alkali metals, isocyanates, halogens, hydrazine, caustics (ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), acid anhydrides, ammonia or hyrazine + silver oxide, chlorate, chromic anhydride, cyanuric acid + water, dichloromethane + sulfuric acid + nitrate (or) nitrite, hydrogen peroxide + sulfuric acid, iodine + phosphorus, iodine + methanol + mercuric oxide, magnesium perchlorate, manganese perchlorate + 2,2-dimethoxy propane, perchlorates, chromates, permanganates + sulfuric acid, potassium superoxide, potassium tert-butoxide, silver & nitric acid, silver perchlorate, sodium hydrazide, sulfuric acid + sodium dichromate, tetrachlorosilane + water, mercuric nitrate, acetic anhydride + sodium hydrosulfate, disulfuric acid + nitric acid, phosphorous (III) oxide, potassium tert-butoxide + acids.</p> <p>Ethanol is also incompatible with platinum, and sodium. No really safe conditions exist under which ethyl alcohol and chlorine oxides can be handled. Reacts vigorously with acetyl chloride (Ethyl alcohol 200 Proof)</p>
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 3450 mg/kg [Mouse]. (Ethyl alcohol 200 Proof). Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit]. (Isopropyl alcohol).
Chronic Effects on Humans	<p>CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH [Ethyl alcohol 200 Proof]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Isopropyl alcohol].</p> <p>MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Ethyl alcohol 200 Proof]. Mutagenic for bacteria and/or yeast. [Ethyl alcohol 200 Proof]. Mutagenic for mammalian somatic cells. [Methyl alcohol]. Mutagenic for bacteria and/or yeast. [Methyl alcohol].</p> <p>TERATOGENIC EFFECTS: Classified PROVEN for human [Ethyl alcohol 200 Proof]. Classified POSSIBLE for human [Methyl alcohol].</p> <p>DEVELOPMENTAL TOXICITY: Classified Development toxin [PROVEN] [Ethyl alcohol 200 Proof]. Classified</p>

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	Reproductive system/toxin/female, Reproductive system/toxin/male [POSSIBLE] [Ethyl alcohol 200 Proof]. Contains material which may cause damage to the following organs: kidneys, the reproductive system, heart, brain, peripheral nervous system, upper respiratory tract, skin, optic nerve.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Lowest Published Dose/Conc: LDL[Human] - Route: Oral; Dose: 1400 mg/kg LDL[Human child] - Route: Oral; Dose: 2000 mg/kg LDL[Rabbit] - Route: Skin; Dose: 20000 mg/kg (Ethyl alcohol 200 Proof)
Special Remarks on Chronic Effects on Humans	May affect genetic material (mutagenic) Causes adverse reproductive effects and birth defects (teratogenic) , based on moderate to heavy consumption. May cause cancer based on animal data. Human: passes through the placenta, excreted in maternal milk. (Ethyl alcohol 200 Proof)
Special Remarks on other Toxic Effects on Humans	Acute potential health effects: Skin: causes skin irritation Eyes: causes eye irritation Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, and alterations in gastric secretions. May affect the brain, behavior/central nervous system (central nervous system depression - amnesia, headache, muscular incoordination, excitation, mild euphoria, slurred speech, drowsiness, staggering gait, fatigue, changes in mood/personality, excessive talking, dizziness, ataxia, somnolence, coma/narcosis, hallucinations, distorted perceptions, general anesthetic), peripheral nervous system (spastic paralysis), vision (diplopia). Moderately toxic and narcotic in high concentrations. May also affect metabolism, blood, liver, respiration (dyspnea), and endocrine system. Contains Methanol, which may cause blindness if swallowed May affect respiratory tract, cardiovascular(cardiac arrhythmias, hypotension), and urinary systems. Inhalation: May cause irritation of the respiratory tract and affect brain, behavior/central nervous system with symptoms similar to ingestion. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may casue dermatitis, an allergic reaction. Ingestion: Prolonged or repeated ingestion will have similair effects as acute ingestion. It may also affect the brain.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	Methanol in water is rapidly biodegraded and volatilized. Aquatic hydrolysis, oxidation, photolysis, adsorption to sediment, and bioconcentration are not significant fate processes. The half-life of methanol in surfact water ranges from 24 hrs. to 168 hrs. Based on its vapor pressure, methanol exists almost entirely in the vapor phase in the ambient atmosphere. It is degraded by reaction with photochemically produced hydroxyl radicals and has an estimated half-life of 17.8 days. Methanol is physically removed from air by rain due to its solubility. Methanol can react with NO2 in polluted to form methyl nitrate. The half-life of methanol in air ranges from 71 hrs. (3 days) to 713 hrs. (29.7 days) based on photooxidation half-life in air. (Methyl alcohol)

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification CLASS 3: Flammable liquid.

Identification : Alcohol Solution UNNA: 1987 PG: III

Special Provisions for Transport Not available.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

Connecticut hazardous material survey.: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Illinois toxic substances disclosure to employee act: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Illinois chemical safety act: Methyl alcohol
 New York release reporting list: Methyl alcohol
 Rhode Island RTK hazardous substances: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Pennsylvania RTK: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Florida: Ethyl alcohol 200 Proof; Isopropyl alcohol
 Minnesota: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Massachusetts RTK: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 Massachusetts spill list: Ethyl alcohol 200 Proof; Methyl alcohol
 New Jersey: Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 New Jersey spill list: Isopropyl alcohol; Methyl alcohol
 Louisiana spill reporting: Methyl alcohol
 California Director's List of Hazardous Substances: Ethyl alcohol; Methyl alcohol; Isopropyl alcohol
 TSCA 8(b) inventory: Water; Ethyl alcohol 200 Proof; Isopropyl alcohol; Methyl alcohol
 TSCA 4(a) final testing order: Isopropyl alcohol
 TSCA 8(a) IUR: Isopropyl alcohol
 TSCA 8(d) H and S data reporting: Isopropyl alcohol: Effective date: 12/15/86 Sunset Date: 12/15/96
 TSCA 12(b) one time export: Isopropyl alcohol
 SARA 313 toxic chemical notification and release reporting: Isopropyl alcohol 2.5%; Methyl alcohol 2.5%
 CERCLA: Hazardous substances.: Methyl alcohol: 5000 lbs. (2268 kg);

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications

WHMIS (Canada) CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
 CLASS D-2B: Material causing other toxic effects (TOXIC).
DSCL (EEC) R11- Highly flammable. S7- Keep container tightly closed.
 S16- Keep away from sources of ignition - No smoking.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	3
Reactivity	0
Personal Protection	h

National Fire Protection Association (U.S.A.)

Health Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe)
(Pictograms)



TDG (Canada)
(Pictograms)



ADR (Europe)
(Pictograms)



Protective Equipment



Gloves.



Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

MSDS Code R0074

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 4/24/2007.

Verified by Sonia Owen.

Printed 4/24/2007.

CALL (310) 516-8000

Notice to Reader

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. 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 Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.