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Version 1

## 1. IDENTIFICATION

**Product identifier****Product Name** 91% Isopropyl Alcohol USP Grade**Recommended use of the chemical and restrictions on use****Recommended Use** General purpose solvent**Details of the supplier of the safety data sheet****Supplier Address**Alliance Chemical  
204 South Edmond St  
Taylor, Texas, 76574**Emergency telephone number****Emergency Telephone** CHEMTEL (800) 255-3924 (24 Hours/Day, 7 Days/Week)

## 2. HAZARDS IDENTIFICATION

**Physical state** Liquid**OSHA Hazards**

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

**Classification**

Flammable Liquids	Category 2
Serious Eye Damage	Category 2A
Specific Target Organ Toxicity – Single Exposure	Category 3

**Signal Word****Danger****Hazard statements**Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause drowsiness or dizziness**Precautionary Statements - Prevention**Keep away from heat/sparks/open flames/hot surfaces.  
No smoking  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.

Take precautionary measures against static discharge.  
 Avoid breathing mist/vapors/spray.  
 Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/eye protection/face protection.

#### **Precautionary Statements - Response**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
 Call a POISON CENTER/doctor/physician if you feel unwell.

In case of fire: Use CO2, dry chemical, or foam to extinguish

#### **Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
 Store locked up

#### **Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### **Other Information**

May be harmful if swallowed.  
 PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS No	Weight-%
Isopropyl Alcohol	67-63-0	50 – 100
Water	7732-18-5	0 - 10

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### **4. FIRST AID MEASURES**

#### **Description of first aid measures**

<b>General Advice</b>	Immediately call a poison center or doctor/physician.
<b>Eye Contact</b>	Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and remove contact lenses. If contact lenses cannot be removed, seek medical attention. Do not rub affected area. Seek medical attention
<b>Skin Contact</b>	Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damages or if pain or irritation persists.
<b>Inhalation</b>	Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically. Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

**Small Fire** Use dry chemicals, carbon dioxide, alcohol resistant foam, or water fog. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

**Large Fire** Use foam or water fog. Water may be ineffective. Water may not extinguish the fire. Water fog and spray are effective in cooling containers and adjacent structures. Water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition, or explosion. DO NOT use a solid stream of water directly on the fire as the water may spread the fire to a larger area.

**Unsuitable Extinguishing Media** Straight streams of water, directly on fire

**Specific Hazards Arising from the Chemical**

**Hazardous Combustion Products** Carbon dioxide, carbon monoxide.

**Flammable Liquid!** This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

**Protective equipment and precautions for firefighters**

Firefighters must use full protective equipment, including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

**Fire Fighting Instructions** In case of fire and/or explosion, do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Flammable Liquid!** Release causes an immediate fire or explosion hazard.

**Environmental precautions**

**Environmental precautions** Prevent spilled material from entering waterways. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Evacuate all non-essential personnel from immediate area and establish a “regulated zone” with site control and security. A vapor-suppressing foam may be used to reduce vapors. Eliminate all ignition sources. All equipment used when handling this material must be grounded. Prevent further leakage or spillage if safe to do so. Do not touch or walk through spilled material. Prevent spilled material from entering waterways, sewers, basements, or confined areas.

**Methods for Clean-Up** Absorb or cover with dry earth, sand, or other non-combustible material and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material. Keep in suitable, closed containers for disposal.

**For Large Spills** For large spills, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing and eye/face protection. Do not breathe dusts or mists. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge. Use with local exhaust ventilation. Use spark-proof tools and explosion proof equipment. Keep in an area equipped with sprinklers. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. In case of insufficient ventilation, wear suitable respiratory equipment.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed and store in a cool, dry, well-ventilated place, plainly labeled, and out of closed vehicles. Keep away from all ignition sources (pilot lights, electric motors, and static electricity). Ground all equipment containing this material. Containers should be able to withstand pressures expected from warming and cooling in storage. This flammable liquid should be stored in a separate safety cabinet or room. A refrigerated room is preferable for materials with a flash point temperature lower than 70 deg F (21 deg C). All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable regulatory requirements and the National Electrical Code. Store away from incompatible materials.

**Incompatible Materials** Acids. Strong oxidizing agents, such as liquid chlorine, other halogens, hydrogen peroxide and oxygen. Isocyanates.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Cas No	Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
67-63-0	Isopropyl Alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m <sup>3</sup>	IDLH: 2000 ppm 10% LEL TWA: 980 mg/m <sup>3</sup> TWA 400 ppm STEL: 500 ppm

		(vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m <sup>3</sup>	STEL: 1225 mg/m <sup>3</sup>
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**Appropriate engineering controls**

<b>Engineering Controls</b>	Showers Eyewash stations Ventilation systems
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**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Tight sealing safety goggles.
<b>Skin and Body Protection</b>	Wear suitable gloves. Nitrile, butyl rubber or neoprene gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.  Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
<b>Respiratory Protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Chemical respirator with organic vapor cartridge.
<b>General Comments</b>	When using, do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Alcohol-like
<b>Color</b>	Clear, colorless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	Not Available		
<b>Melting point / freezing point</b>	- 130 – 128.2 °F (-90 – 89 °C)		
<b>Boiling point / boiling range</b>	184 °F (83 °C)		
<b>Flash point (closed cup)</b>	53.6 – 69.1 °F (12.0 – 20.6 °C)		
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	Not applicable		
<b>Flammability Limit in Air</b>			
<b>Upper flammability or explosive limits</b>	12.7 % v/v		
<b>Lower flammability or explosive limits</b>	2.0 % v/v		
<b>Vapor Pressure</b>	32.4 mmHg (20 °C)		
<b>Vapor Density</b>	2.1 (Air = 1)		
<b>Relative Density</b>	Not determined		
<b>Water Solubility</b>	Soluble		
<b>Solubility in other solvents</b>	Not determined		
<b>Partition Coefficient</b>	Not determined		
<b>Autoignition temperature</b>	750.2 °F (399 °C)		
<b>Decomposition temperature</b>	Not determined		
<b>Kinematic viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not explosive		
<b>Oxidizing Properties</b>	Not oxidizing.		

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to Avoid

Keep out of reach of children. Keep away from heat, flame and other potential ignition sources. Avoid temperatures exceeding the flash point. Avoid direct light. Contact with incompatible materials.

### Incompatible materials

Acids. Strong oxidizers such as liquid chlorine, halogens, hydrogen peroxide and oxygen. Isocyanates.

### Hazardous decomposition products

No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this SDS.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Do not inhale.
<b>Skin Contact</b>	Avoid contact with skin. Repeat exposure may cause skin dryness or cracking.
<b>Eye Contact</b>	Avoid contact with eyes. Causes serious eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl Alcohol	4710 mg/kg (rat)	12870 mg/kg (rabbit)	72.6 mg/L (rat) 4 h

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Inhalation</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
<b>Skin corrosion/irritation</b>	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
<b>Eye Irritation</b>	Causes serious eye irritation.
<b>Chronic Hazards</b>	No known effect based on information supplied.
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.  
**NTP Report on Carcinogens**  
 Not listed.  
**OSHA Specifically Regulated Substances (29 CFR 1920.1001-1053)**  
 Not regulated.

**Reproductive Toxicity** This product is not expected to cause reproductive or developmental effects.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

**Component Information**

Isopropyl Alcohol	LC50: > 10000 mg/l	Crustacea - Daphnia magna	24 hrs
	LC50: 9640 mg/l	Fish – Pimephales promelas	96 hrs
	EC50: > 100 mg/l	Crustacea – Daphnia magna	21 days
	NOEC: 141 mg/l	Crustacea – Daphnia magna	16 days
	NOEC: 30 mg/l	Crustacea – Daphnia magna	21 days

**Persistence/Degradability**

No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

Isopropyl alcohol 0.05

**Mobility**

Expected to be mobile in soil.

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

**Disposal of Wastes** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Contaminated Packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

**Note**

Read safety instructions, SDS and emergency procedures before handling.

**DOT**

**UN/ID No** UN1219  
**Proper Shipping Name** Isopropanol Solution  
**Hazard class** 3  
**Packing Group** II  
**Environmental hazards**  
     **Marine pollutant** No.  
**Special provisions** IB2, T4, TP1

<b>Packing exceptions</b>	4b, 150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

<b>UN number</b>	UN1219
<b>Proper Shipping Name</b>	Isopropanol Solution
<b>Transport hazard class(es)</b>	3
<b>Packing Group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3L

**IMDG**

<b>UN number</b>	UN1219
<b>Proper Shipping Name</b>	Isopropanol Solution
<b>Transport hazard class(es)</b>	3
<b>Packing Group</b>	II
<b>Marine Pollutant</b>	This material does not meet the definition of a marine pollutant per 49 CFR 171.8
<b>EmS</b>	F-E, S-D

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	AICS
2-Propanol	X	ACTIVE	X	200-661-7	X	X	KE-29363	X

**Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*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*

*AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations**

Chemical name	CAS/313	Section 302 EHS TPQ	Section 304 EHS RQ	CERCLA RQ	SARA 313	RCRA Code	CAA 112 (r) TQ
Isopropyl Alcohol	67-63-0	-	-	-	-	-	-

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	California	Rhode Island
Isopropyl Alcohol	X	X	X	X	X



**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	3	0	Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical hazards</b>	<b>Personal Protection</b>
	2	3	0	Not determined

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**Revision Note:**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**