

## 1. Identification

**Product identifier** Isopropyl Alcohol 99%

**Other means of identification** Not available.

**Recommended use** Used to disinfect surfaces.

**Recommended restrictions** None known.

**Manufacturer / Importer / Supplier / Distributor information**

**Manufacturer/Supplier** Perrigo Company  
3940 Quebec Ave North  
Minneapolis, MN 55427 US  
763-546-4676

**Telephone:** 763-546-4676

**Emergency** Emergency Telephone: (888) 464-2986  
Global Incident Response No.: (760) 476-3962  
Global Response Access Code: 333304

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 2

**Health hazards** Serious eye damage/eye irritation Category 2A  
Specific target organ toxicity, single exposure Category 3 narcotic effects

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

**Precautionary statement**

**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. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

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

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

**Hazard(s) not otherwise classified (HNOC)** Not classified.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Isopropyl alcohol	67-63-0	99
Water	7732-18-5	1

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

**Inhalation** Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.

<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation persists after washing.
<b>Ingestion</b>	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Do not induce vomiting without advice from poison control center. Get medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Causes serious eye irritation. May cause drowsiness or dizziness. Defats the skin.
<b>Indication of immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Keep victim warm.
<b>General information</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Specific hazards arising from the chemical</b>	The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.
<b>Special protective equipment and precautions for firefighters</b>	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Local authorities should be advised if significant spillages cannot be contained. Stay upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering. Use personal protection recommended in Section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.  Large Spills: Dike the spilled material, where this is possible. Following product recovery, flush area with water. Cover with plastic sheet to prevent spreading. Absorb spillage with non-combustible, absorbent material.  Small Spills: Clean surface thoroughly to remove residual contamination.  Never return spills in original containers for re-use.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## 7. Handling and storage

<b>Precautions for safe handling</b>	The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Do not handle or store near an open flame, heat or other sources of ignition. Do not smoke. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Use only in well-ventilated areas. Avoid prolonged exposure. Wash thoroughly after handling. Handle and open container with care.
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**Conditions for safe storage, including any incompatibilities**

Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Store in cool place. Keep in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep this material away from food, drink and animal feed. Use care in handling/storage. Keep away from sources of ignition - No smoking.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

**US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)**

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	TWA	980 mg/m3
		400 ppm

**US NIOSH Pocket Guide to Chemical Hazards: Short Term Exposure Limit (STEL)**

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

**Appropriate engineering controls**

Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment. Provide easy access to water supply or an emergency shower.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear chemical goggles.

**Skin protection**

**Hand protection** Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

**Other** Wear appropriate chemical resistant clothing. Protective shoes or boots. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Do not get this material in contact with skin. Do not get this material on clothing. Wear chemical protective equipment that is specifically recommended by the Personal Protective Equipment manufacturer.

**Respiratory protection** Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Launder contaminated clothing before reuse. Remove and isolate contaminated clothing and shoes.

**9. Physical and chemical properties**

**Appearance** Clear, colorless liquid.

**Physical state** Liquid.

<b>Form</b>	Liquid.
<b>Color</b>	Clear, colorless.
<b>Odor</b>	Characteristic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	179.6 °F (82 °C)
<b>Flash point</b>	53.1 °F (11.7 °C) Closed Cup
<b>Evaporation rate</b>	1.7 (n-Butyl Acetate = 1)
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	2.5 % v/v
<b>Flammability limit - upper (%)</b>	12 % v/v
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	37 mm Hg (20°C/68°F)
<b>Vapor density</b>	1.6 (Air=1)
<b>Relative density</b>	0.783 - 0.787 (68°F/20°C)
<b>Solubility(ies)</b>	Completely soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	852.08 °F (455.6 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

## 10. Stability and reactivity

<b>Reactivity</b>	May attack some plastics, rubber and coatings.
<b>Chemical stability</b>	Stable under normal temperature conditions. Risk of explosion. Risk of ignition.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids. Alkali metals. Aluminum. Isocyanates. Chlorine. Anhydride.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Inhalation</b>	Vapors may cause drowsiness and dizziness.
<b>Skin contact</b>	May cause skin irritation. Defats the skin.
<b>Eye contact</b>	Causes serious eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Symptoms can include irritation, redness, scratching of the cornea, and tearing. Vapors may cause drowsiness and dizziness.

### Information on toxicological effects

**Acute toxicity** May cause discomfort if swallowed.

Components	Species	Test Results
Isopropyl alcohol (CAS 67-63-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	12800 mg/kg

Components	Species	Test Results
Oral LD50	Rat	4.7 g/kg
<b>Skin corrosion/irritation</b>	May cause skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory sensitization</b>	Not classified.	
<b>Skin sensitization</b>	Not a skin sensitizer.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	Not classified.	
<b>Reproductive toxicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness or dizziness.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not classified.	
<b>Chronic effects</b>	Frequent or prolonged contact may defat and dry the skin.	

## 12. Ecological information

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Isopropyl alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
Fish	LC50 Bluegill ( <i>Lepomis macrochirus</i> )	> 1400 mg/l, 96 hours
<b>Persistence and degradability</b>	No data available.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Partition coefficient n-octanol / water (log Kow)</b>		
Isopropyl alcohol (CAS 67-63-0)	0.05	
<b>Mobility in soil</b>	The product is water soluble and may spread in water systems.	
<b>Other adverse effects</b>	The product is a volatile organic compound which has a photochemical ozone creation potential.	

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of this material and its container at hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D001: Waste Flammable material with a flash point <140 °F
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN1219
<b>UN proper shipping name</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)
<b>Transport hazard class(es)</b>	3
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>Special precautions for user</b>	Not available.
<b>Special provisions</b>	IB2, T4, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242
<b>IATA</b>	
<b>UN number</b>	UN1219
<b>UN proper shipping name</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)

Transport hazard class(es) 3  
Subsidiary class(es) -  
Packaging group II  
Environmental hazards No  
Labels required 3  
ERG Code 3L  
Special precautions for user Read safety instructions, MSDS and emergency procedures before handling.

#### IMDG

UN number UN1219  
UN proper shipping name ISOPROPANOL (ISOPROPYL ALCOHOL)  
Transport hazard class(es) 3  
Subsidiary class(es) -  
Packaging group II  
Environmental hazards  
Marine pollutant No  
Labels required 3  
EmS F-E, S-D  
Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This product is a liquid and when transported in bulk is covered under MARPOL 73/78 Annex II. This product is listed in the IBC Code. Pollution category: Z

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.  
CERCLA/SARA Hazardous Substances - Not applicable.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)** Not regulated.

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

#### US. Massachusetts RTK - Substance List

Isopropyl alcohol (CAS 67-63-0)

#### US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Isopropyl alcohol (CAS 67-63-0)

**US. Rhode Island RTK**

Isopropyl alcohol (CAS 67-63-0)

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

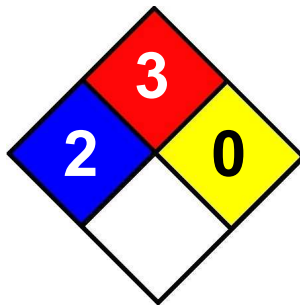
Not listed.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision****Issue date** 17-September-2013**Revision date** -**Version #** 01**NFPA Ratings****Disclaimer**

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