

### SECTION 1: Identification

#### 1.1. Identification

Product form	: Substance
Substance name	: Isopropyl Alcohol 99%
CAS-No.	: 67-63-0
Formula	: C3H8O
Synonyms	: IPA, Isopropanol, 2-Propanol, Secondary propyl alcohol

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Disinfectant Industrial Solvent Additive
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#### 1.3. Supplier

##### ECOLINK

2177 Flintstone Drive  
Suite A  
Tucker, GA 30084  
770-621-8240 (t)  
[www.ecolink.com](http://www.ecolink.com)

#### 1.4. Emergency telephone number

Emergency number : **INFOTRAC 800-535-5053**

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

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

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking heat, hot surfaces, open flames, sparks  
P233 - Keep container tightly closed  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

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skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P370+P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

### 2.3. Other hazards which do not result in classification

Repeated contact with neat product may dry the skin causing cracking and/ or fissuring.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS-US classification
Isopropyl Alcohol 99% (Main constituent)	(CAS-No.) 67-63-0	99	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.  
First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.  
First-aid measures after skin contact : Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.  
First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.  
First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal. Call Poison Control Center. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms : Inhalation of very high concentrations may cause asphyxia, anesthesia, CNS depression (primarily fatigue, dizziness and loss of concentration, with collapse, coma and death in cases of severe overexposure), and possible cardiac sensitization.  
Hazards : Causes serious eye irritation. May cause drowsiness or dizziness

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.  
Unsuitable extinguishing media : None.  
Water may be ineffective unless used under favorable conditions by experienced fire-fighters trained in fighting all types of flammable liquid fires. Water can be used to cool and protect exposed material.

### 5.2. Specific hazards arising from the chemical

Fire hazard : The vapor is heavier than air, spreads along the ground and distant ignition is possible.  
Carbon monoxide may be evolved if incomplete combustion occurs.

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Reactivity : Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.  
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.  
Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.  
Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone. Scoop absorbed substance into closing containers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.  
Storage area : Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. May be stored under nitrogen. Meet the legal requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Isopropyl Alcohol 99% (67-63-0)

ACGIH	ACGIH TWA (ppm)	200 ppm
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Isopropyl Alcohol 99% (67-63-0)		
ACGIH	ACGIH STEL (ppm)	400 ppm

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. nitrile rubber. viton. polyethylene/ethylenevinylalcohol.

GIVE GOOD RESISTANCE: neoprene. chloroprene rubber.

GIVE LESS RESISTANCE: PVC. neoprene/natural rubber.

GIVE POOR RESISTANCE: natural rubber. polyethylene. PVA

#### Hand protection:

Gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Protective clothing

#### Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colorless
Odor	: Alcohol odor. Stuffy odor. Mild odor
Odor threshold	: 3 - 610 ppm 8 - 1499 mg/m <sup>3</sup>
pH	: No data available
Melting point	: -89 °C
Freezing point	: No data available
Boiling point	: 82 °C (1013 hPa)
Critical temperature	: 235 °C
Critical pressure	: 47600 hPa
Flash point	: 12 °C
Relative evaporation rate (butyl acetate=1)	: 2.3
Relative evaporation rate (ether=1)	: 21
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 44 hPa (20 °C)
Vapor pressure at 50 °C	: 229 hPa
Relative vapor density at 20 °C	: 2.1
Relative density	: 0.8 (20 °C)
Relative density of saturated gas/air mixture	: 1.05
Specific gravity / density	: 785 kg/m <sup>3</sup>
Molecular mass	: 60.1 g/mol
Solubility	: Soluble in water.

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Log Pow	: 0.05 (Weight of evidence approach, 25 °C)
Auto-ignition temperature	: 399 °C
Decomposition temperature	: No data available
Viscosity, kinematic	: 2.5316 mm <sup>2</sup> /s (25 °C)
Viscosity, dynamic	: 2.1 mPa.s (25 °C)
Explosion limits	: 2 - 13 vol % 50 - 335 g/m <sup>3</sup> LEL: 2 vol % UEL: 13 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

Minimum ignition energy	: 0.65 mJ
Specific conductivity	: 350000000 pS/m (25 °C)
Saturation concentration	: 106 g/m <sup>3</sup>
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Volatile.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Isopropyl Alcohol 99% (67-63-0)	
LD50 oral rat	5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value)
LD50 dermal rabbit	16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value)
LC50 inhalation rat (ppm)	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male/female, Experimental value)
ATE US (oral)	5840 mg/kg body weight
ATE US (dermal)	13120 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Isopropyl Alcohol 99% (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.

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Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: 2.5316 mm <sup>2</sup> /s (25 °C)
Potential Adverse human health effects and symptoms	: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Not irritant to skin. May cause drowsiness or dizziness. Practically non-toxic by inhalation (LC50 inh, rat > 20 mg/l/4h). Causes serious eye irritation.
Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Dry/sore throat. Central nervous system depression. Dizziness. Headache. Narcosis.
Symptoms/effects after skin contact	: Not irritating.
Symptoms/effects after eye contact	: Irritation of the eye tissue.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Central nervous system depression. Headache. Dilation of the blood vessels. Low arterial pressure. Nausea. Vomiting. Abdominal pain. Disturbed motor response. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Body temperature fall. Slowing respiration.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Itching. Cracking of the skin. Skin rash/inflammation. Impaired memory.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. No inhibition of activated sludge. Not harmful to algae. Not harmful to bacteria.

#### Isopropyl Alcohol 99% (67-63-0)

LC50 fish 1	9640 - 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
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### 12.2. Persistence and degradability

#### Isopropyl Alcohol 99% (67-63-0)

Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.19 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.23 g O <sub>2</sub> /g substance
ThOD	2.4 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

#### Isopropyl Alcohol 99% (67-63-0)

Log Pow	0.05 (Weight of evidence approach, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

#### Isopropyl Alcohol 99% (67-63-0)

Surface tension	0.021 N/m (25 °C)
Ecology - soil	No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

No additional information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN1219 Isopropanol, 3, II
UN-No.(DOT)	: UN1219
Proper Shipping Name (DOT)	: Isopropanol
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	: II - Medium Danger
Hazard labels (DOT)	: 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Special Provisions (49 CFR 172.102)	: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 4b;150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
Other information	: No supplementary information available.

#### Transportation of Dangerous Goods

##### Transport by sea

Transport document description (IMDG)	: UN 1219 Isopropanol (isopropyl alcohol), 3, II
UN-No. (IMDG)	: 1219
Proper Shipping Name (IMDG)	: Isopropanol (isopropyl alcohol)
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: II - substances presenting medium danger
EmS-No. (1)	: F-E
EmS-No. (2)	: S-D

##### Air transport

Transport document description (IATA)	: UN 1219 Isopropanol, 3, II
UN-No. (IATA)	: 1219
Proper Shipping Name (IATA)	: Isopropanol
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: II - Medium Danger

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Isopropyl Alcohol 99% (67-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313

SARA Section 311/312 Hazard Classes	Health hazard - Serious eye damage or eye irritation
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Isopropyl Alcohol 99%	CAS-No. 67-63-0	100%
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#### 15.2. International regulations

##### CANADA

##### Isopropyl Alcohol 99% (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

No additional information available

##### National regulations

No additional information available

#### 15.3. US State regulations

##### Isopropyl Alcohol 99% (67-63-0)

State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

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Revision date : 05/11/2018

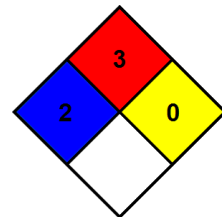
Full text of H-phrases:

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

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012)

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