

### Section 1. Identification

**Product Identifier:** High Purity Chemicals

**Synonyms:** Isopropanol; Isopropyl Alcohol; 2-Propanol; sec-propyl alcohol; dimethylcarbinol; sec-propanol; Rubbing alcohol; IPA 70%;

**Other means of identification:** CAS No. 67-63-0  
EINECS No. 200-661-7

**Recommended use of the chemical and restrictions on use:** General use organic solvent

### Suppliers's Details

**Company:** CleanPro® Cleanroom Products

**Address:** 121 Cheshire Lane, Ste. 400  
Minnetonka, MN 55305  
United States of America

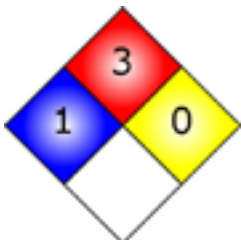
**Emergency telephone number:** CHEMTREC: 1.800.424.9300 (USA) / +1.703.527.3887 (International)

### Section 2. Hazards Identification

**OSHA Hazards:** Flammable liquid, Target Organ Effect, Irritant

**Target Organs:** Cardiovascular system, Gastrointestinal tract, Kidney, Liver, Nerves

**NFPA:**



**GHS label elements, including precautionary statements:**



**Signal word:** DANGER!

**Hazard statements:** H225 Highly flammable liquid and vapor.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

### Precautionary Statements

#### Prevention:

- P261 Avoid breathing dust/fumes/gas/mist/vapors.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- P501 Dispose of contents/ container to an approved waste disposal plant.
- P240 Ground/bond container and receiving equipment.
- P337 + P313 If eye irritation persists: Get medical attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.
- P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
- P233 Keep container tightly closed.
- P102 Keep out of reach of children.
- 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.
- P243 Take precautionary measures against static discharge.
- P241 Use explosion-proof electrical, ventilating, and lighting equipment.
- P242 Use only non-sparking tools.
- P271 Use only outdoors or in a well-ventilated area.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves and eye and face protection.

#### GHS Classification(s):

- Eye irritation (Category 2A)
- Flammable Liquids (Category 2)
- Specific target organ toxicity - single exposure (Category 3)

#### Other hazards which do not result in classification:

#### Potential Health Effects:

Organ	Description
Eyes	Can cause irritation to the eyes.
Ingestion	Can be harmful if ingested.
Inhalation	Can be harmful if inhaled. Can cause respiratory tract irritation. Vapors can cause drowsiness and dizziness.
Skin	Can cause irritation if absorbed through skin.

### Section 3. Composition and Information on Ingredients

<b>Chemical identity:</b>	Isopropyl Alcohol 70%
<b>Common name / Synonym:</b>	Isopropanol; Isopropyl Alcohol; 2-Propanol; sec-propyl alcohol; dimethylcarbinol; sec-propanol; Rubbing alcohol; IPA 70%;
<b>CAS number:</b>	67-63-0
<b>EINECS number:</b>	200-661-7
<b>ICSC number:</b>	0554
<b>RTECS #:</b>	NT8050000
<b>UN #:</b>	1219
<b>EC #:</b>	603-117-00-0

% Volume	Material	CAS
68 - 72	Isopropyl Alcohol	67-63-0
28 - 32	Water	7732-18-5

### Section 4. First Aid Measures

<b>General advice:</b>	<p>Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.</p> <p>Consult a physician.</p> <p>Show this safety data sheet to the doctor in attendance.</p> <p>Move out of dangerous area.</p>
<b>Skin:</b>	<p>Immediately flush affected area with plenty of water while removing contaminated clothing.</p> <p>Wash contaminated clothing before reuse.</p> <p>Contact a doctor.</p> <p>If irritation persists, get medical attention.</p>
<b>Inhalation:</b>	<p>Remove person to fresh air.</p> <p>If signs/symptoms continue, get medical attention.</p> <p>Give oxygen or artificial respiration as needed.</p>
<b>Eyes:</b>	<p>Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids.</p> <p>If irritation persists, seek medical attention.</p>
<b>Ingestion:</b>	<p>DO NOT induce vomiting.</p> <p>If vomiting does occur, have victim lean forward to prevent aspiration.</p> <p>Rinse mouth with water.</p> <p>Seek medical attention.</p> <p>Never give anything by mouth to an unconscious individual.</p>

### Section 5. Firefighting Measures

#### Suitable (and unsuitable) extinguishing media:

- SMALL FIRE: Use dry chemicals, CO<sub>2</sub>, water spray or alcohol-resistant foam.
- LARGE FIRE: Use water spray, water fog or alcohol-resistant foam. Cool all affected containers with flooding quantities of water.

#### Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

- May explode when heated.
- Closed containers may rupture and explode during runaway polymerization.
- Beware of vapours accumulating to form explosive concentrations.
- Vapours can accumulate in low areas.

#### Special protective equipment and precautions for firefighters:

- Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Keep unopened containers cool by spraying with water.

#### Unusual Fire and Explosion Hazards:

- May produce a floating fire hazard.
- Static ignition hazard can result from handling and use.
- Vapors may travel to source of ignition and flash back.
- Vapors may settle in low or confined spaces.

Carbon oxides expected to be the primary hazardous combustion product.

#### Flammable Properties

**Classification:** OSHA/NFPA Class IB Flammable Liquid.

**Flash point:** 18.3°C (64.9°F) - Closed Cup

**Autoignition temperature:** 399°C (750°F) (for Isopropyl Alcohol 99%)

### Section 6. Accidental Release Measures

#### Personal precautions, protective equipment, and emergency procedures:

Do not inhale vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

#### Environmental precautions:

Stop leak. Contain spill if possible and safe to do so. Prevent product from entering drains.

#### Methods and materials for containment and cleaning up:

Contain spill, then collect with an electrically protected vacuum cleaner or by wet-brushing and put the material into a convenient waste disposal container. Keep container closed.

### Section 7. Handling and Storage

#### Precautions for safe handling:

Do not get on skin or in eyes. Do not inhale vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Open and handle container with care. Metal containers involved in the transfer of this material should be grounded and bonded.

#### Conditions for safe storage, including any incompatibilities:

Store under nitrogen. Keep container tightly closed in a dry and well-ventilated location. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under an inert gas. Avoid moisture.

### Section 8. Exposure Controls/Personal Protection

#### Control parameters, e.g., occupational exposure limit values or biological limit values:

##### Occupational Exposure Limits:

Component	Source	Type	Value	Note
Isopropyl Alcohol	US (OSHA)	STEL	500 ppm	
Isopropyl Alcohol	US (ACGIH)	STEL	400 ppm	
Isopropyl Alcohol	US (ACGIH)	TWA	200 ppm	
Isopropyl Alcohol	US (OSHA)	TWA	400 ppm	

#### Appropriate engineering controls:

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

#### Individual protection measures, such as personal protective equipment:

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection:** Use chemical safety goggles and/or a full face shield where splashing is possible. Use equipment approved by appropriate government standards, such as NIOSH (US) or EN166 (EU) Maintain eye wash fountain and quick-drench facilities in work area.

**Skin and body protection:** Wear impervious, flame retardant, antistatic protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Section 9. Physical and Chemical Properties

<b>Appearance (physical state, color, etc.):</b>	Liquid. Colorless, clear.
<b>Odor:</b>	Specific data not available
<b>Odor threshold:</b>	Specific data not available
<b>pH:</b>	Specific data not available
<b>Freezing point:</b>	-90°C (-130°F) (for Isopropyl Alcohol 99%)
<b>Initial boiling point and boiling range:</b>	83°C (181°F) (for Isopropyl Alcohol 99%)
<b>Flash point:</b>	18.3°C (64.9 °F) - Closed Cup
<b>Evaporation rate:</b>	Specific data not available
<b>Flammability (solid, gas):</b>	Flammable
<b>Upper / Lower flammability or explosive limits:</b>	12.7% (V) / 2% (V) (for Isopropyl Alcohol 99%)
<b>Vapor pressure:</b>	43.2 hPa (32.4 mmHg) at 20.0°C (68.0°F)
<b>Vapor Density:</b>	2.1 (for Isopropyl Alcohol 99%)
<b>Relative Density:</b>	Specific data not available
<b>Solubility(ies):</b>	Miscible
<b>Partition coefficient n-octanol/water(ies):</b>	log Pow: 0.05 (for Isopropyl Alcohol 99%)
<b>Auto-ignition temperature:</b>	399°C (750°F) (for Isopropyl Alcohol 99%)
<b>Decomposition temperature:</b>	Specific data not available
<b>Formula (ISOPROPYL ALCOHOL):</b>	C <sub>3</sub> H <sub>8</sub> O
<b>Formula (WATER):</b>	H <sub>2</sub> O
<b>Molecular Weight (ISOPROPYL ALCOHOL):</b>	60.1 g/mol
<b>Molecular Weight (WATER):</b>	18.02 g/mol

### Section 10. Stability and Reactivity

<b>Chemical Stability:</b>	Avoid exposure to air any longer than necessary so as to prevent peroxide formation. Stable under recommended storage conditions.
<b>Possibility of hazardous reactions:</b>	Vapors may form explosive mixture with air.
<b>Conditions to avoid (e.g., static discharge, shock or vibration):</b>	Heat, flames, and sparks. Extreme temperatures and direct sunlight.
<b>Incompatible materials:</b>	Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids
<b>Hazardous decomposition products:</b>	Carbon oxides are expected to be, under fire conditions, the primary hazardous decomposition products.

### Section 11. Toxicological Information

#### Water 7732-18-5

**Product Summary:** No data available for the teratogenic, mutagenic, or reproductive toxicity effects of this product.  
 No data available to designate the product as causing specific target organ toxicity through single or repeated exposure.  
 No data available to designate product as an aspiration hazard or as a respiratory or skin sensitizer.

#### Accute Toxicity:

No data available	Oral LD50	Dermal LD50	Inhanation L50
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**Irritation:** Eyes: No data available  
 Skin: No data available

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.  
 ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
 NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
 OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Other Hazards:

Organ	Description
Eyes	No known hazards.
Ingestion	No known hazards.
Inhalation	Can be harmful if inhaled. Can cause irritation to upper respiratory tract.
Skin	No known hazards.

#### Isopropyl Alcohol 67-63-0

**Product Summary:** Long-term exposure (2 years) to Isopropyl Alcohol via inhalation at concentrations up to 5000 ppm caused no exposure related increases in tumors in animals. No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

#### Accute Toxicity:

LC50 Inhalation	Rat	16,000 mg/kg	8 hours
LD50 Dermal	Rabbit	12,800 mg/kg	
LD50 Oral	Rat	5,045 mg/kg	Behavioral abnormalities observed such as altered sleep time and decreased activity.

**Irritation:**

Eyes: Rabbit - Irritating to eyes - 24 hours

Eyes (ISOPROPANOL): Mildly irritating to the eye at an airborne concentration of 400 ppm, unpleasant at 800 ppm.

Respiratory or Skin Sensitization: No data available

Skin: Rabbit - mild skin irritation

**Specific target organ toxicity - single exposure (Globally Harmonized System):**

Inhalation - May cause drowsiness or dizziness. - Central Nervous System

**Carcinogenicity:**

IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Other Hazards:**

Organ	Description
Eyes	Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause transient corneal injury.
Ingestion	Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
Inhalation	Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Causes upper respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. The probable oral lethal dose in humans is 240 ml (2696 mg/kg), but ingestion of only 20 ml (224 mg/kg) has caused poisoning.
Skin	May cause irritation with pain and stinging, especially if the skin is abraded. Isopropanol has a low potential to cause allergic skin reactions; however, rare cases of allergic contact dermatitis have been reported. May be absorbed through intact skin. Dermal absorption has been considered toxicologically insignificant.
Chronic	Prolonged exposure can be irritating to mucous membranes, skin, and the respiratory system. Can cause liver and kidney damage.

## Section 12. Ecological Information

### Water 7732-18-5

**Ecotoxicity (aquatic and terrestrial, where available):**

**Ecotoxicity:** Not Applicable

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Other adverse effects:** No data available



### Isopropyl Alcohol 67-63-0

**Ecotoxicity (aquatic and terrestrial, where available):**

<b>Acute Fish Toxicity (ISOPROPANOL):</b>	LC50 / 96 hours Pimephales promelas: 9,640 mg/L
<b>Toxic to Daphnia and Other Aquatic Invertebrates:</b>	EC50 / 24 h / Water Flea - 5,102 mg/L
<b>Toxicity to Aquatic Plants (ISOPROPANOL):</b>	EC50 / 72 hours Desmodium subspicatus > 2,000 mg/L
<b>Toxicity to Daphnia and other aquatic invertebrates:</b>	Immobilization EC50 / 24h / Water flea - 6,851 mg/L
<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available
<b>Other adverse effects:</b>	No data available

### Section 13. Disposable Considerations

**Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

### Section 14. Transport Information

**Description of waste residues and information on their safe handling and methods of disposal:**

UN-Number	1219
UN Proper shipping name	Isopropanol
Transport hazard class(es)	3
Packing group (if applicable)	II

**IMDG:** UN-Number: 1219 Class: 3 Packing Group: II  
 EMS-No: F-E, S-D  
 Proper shipping name: ISOPROPANOL  
 Marine pollutant: No

**IATA:** UN-Number: 1219 Class: 3 Packing Group: II  
 Proper shipping name: Isopropanol

### Section 15. Regulatory Information

**Safety, health and environmental regulations specific for the product in question:**

**OSHA Hazards:** Flammable liquid, Target Organ Effect, Irritant

All ingredients are on the following inventories or are exempted from listing:

Country	Notification
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZIoC
Philippines	PICCS
United States of America	TSCA

**SARA 302 Components:** SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** The following components are subject to reporting levels established by SARA title III, Section 313: ISOPROPYL ALCOHOL (CAS# 67-63-0) Revision date: 1987-01-01.

**SARA 311/312 Hazards:** Acute Health Hazard

**Chronic Health Hazard:** Fire Hazard

**CERCLA:** No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA

**Massachusetts Right To Know:** Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

**Pennsylvania Right To Know:** Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

Water CAS-No. 7732-18-5

**New Jersey Right To Know:** Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

Water CAS-No. 7732-18-5

**California Prop 65:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## **Section 16. Other Information**

### **Including Information on Preparation and Revision of the SDS:**

**Disclaimer:** The information on this SDS has been prepared by PHARMCO-AAPER. CleanPro believes that the information on this SDS was obtained from reliable sources. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, CleanPro does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable. Information is correct to the best of our knowledge at the date of the MSDS publication.

**MSDS:** 870

### Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		