

Section 1: Product & Company Information

Product Identifier: Isopropyl Alcohol 99% (All grades)

Other Means of Identification

Product Number: 151010
102002

Recommended Use and Restrictions on Use

Recommended Use: Alcohol solvent
Restrictions on Use: No data available

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239

Fax Number: 1-865-524-3375

Website: www.corecheminc.com

Contact Person: Regulatory Manager

E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

Section 2: Hazards Identification

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Flammable, Liquids - 2

Health Hazard(s)

(Corrosion) Damage/Irritation, Eye - 2A
Specific Target Organ Toxicity (STOT)-CNS, Single exposure - 3

Environmental Hazard(s)

Not classified.

Label Elements

Signal Word

DANGER

Hazard Symbol(s)



Hazard Statement(s)

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

Precautionary Statements

General

Not applicable.

Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position 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 suitable extinguishing media for extinction.

Storage

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.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

Slightly irritating to respiratory system.
Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.
This material is a static accumulator.
Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.
If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air vapor mixtures can occur.
The classification of this material is based on OSHA HCS 2012 criteria.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Isopropyl Alcohol	IPA, Isopropanol, 2-Propanol, Propanol, Propyl Alcohol, Dimethyl Carbinol, Propan-2-ol	67-63-0	99 - 100%	No

- Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- "—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

Inhalation

Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.

Skin Contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

Eye Contact

Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eyes. Keep your eyes wide open while rinsing. If eye irritation persists, consult a specialist.

Ingestion

Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

Most important symptoms/effects, acute and delayed

Symptoms

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

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Provide general supportive measures and treat symptomatically. 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. Keep victim under observation. Symptoms may be delayed.

Section 5: Fire-Fighting Measures

General Fire Hazards

Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Alcohol-resistant foam, Carbon dioxide (CO₂), Dry chemical.

Unsuitable Extinguishing Media

High volume water jet.

Specific Hazards Arising from the Chemical

Do not allow run-off from firefighting to enter drains or water courses. Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed such as: Carbon oxides.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use water spray to cool fully closed containers.

Special Protective Equipment for Fire-Fighters

Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. 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. Keep unnecessary personnel away. Keep people away from 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. Avoid contact with eyes. 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.

Methods and Materials for Containment and Clean-Up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform the respective authorities.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid formation of aerosol. Do not breathe vapor/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Containers may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Conditions for Safe Storage, including any Incompatibilities

No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Isopropyl Alcohol	TWA	200 ppm	US. ACGIH
Isopropyl Alcohol	STEL	400 ppm	US. ACGIH
Isopropyl Alcohol	TWA	400 ppm 980 mg/m3	NIOSH REL
Isopropyl Alcohol	ST	500 ppm 1,225 mg/m3	NIOSH REL
Isopropyl Alcohol	TWA	400 ppm 980 mg/m3	OSHA Z-1
Isopropyl Alcohol	TWA	400 ppm 980 mg/m3	OSHA P0
Isopropyl Alcohol	STEL	500 ppm 1,225 mg/m3	OSHA P0
Isopropyl Alcohol	PEL	400 ppm 980 mg/m3	CAL PEL
Isopropyl Alcohol	TWA	500 ppm 1,225 mg/m3	CAL PEL

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Eye/Face Protection

Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves. Neoprene, butyl rubber, nitrile or Viton® gloves are recommended. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Other

Impervious clothing- Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Respiratory Protection

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hygiene Measures

When using, do not eat, drink or 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. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Liquid
Color: Clear, Colorless

Odor:

Alcohol-like

Odor Threshold:

200 ppm

pH:

Not applicable.

Melting Point/Freezing Point:

-88 °C / -128 °F

Initial Boiling Point and Boiling Range:	82 - 83 °C / 180 - 181 °F
Flash Point:	12 °C / 53 °F Method: Abel
Evaporation Rate (butyl acetate=1):	3
Flammability (solid, gas):	No data available.
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	No data available
Flammability Limit – Lower:	No data available
Explosive Limit – Upper:	12.7 %(V)
Explosive Limit – Lower:	2 %(V)
Conductivity:	No data available
Vapor Pressure:	43.2 hPa (68 °F (20 °C))
Vapor Density (air = 1):	< 2.1 @ 15 - 20 °C (59 - 68 °F) (Air = 1.0)
Relative Density (water=1):	0.785 - 0.787 @ 20 °C (68 °F) Reference substance: (water = 1)
Density:	0.785 - 0.787 g/cm ³ @ 20 °C (68 °F)
Solubility(ies):	
Solubility in water:	Completely Miscible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	log Pow: 0.05 @ 25 °C (77 °F)
Auto-Ignition Temperature:	399°C
Decomposition Temperature:	Not applicable.
Viscosity:	
	Viscosity, dynamic: 2.4 mPa.s @ 20 °C (68 °F)
	Viscosity, kinematic: 2.66 mm ² /s @ 25 °C (77 °F)
Other Information:	
Molecular Weight:	60.1 g/mol
Formula:	C ₃ -H ₈ -O

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Vapors may form explosive mixture with air.

Conditions to Avoid

Keep away from heat, flame, sparks and other ignition sources.

Incompatible Materials

Strong acids, Aldehydes, Oxidizing agents, Rubber, Oils, Plastics, Amines, Metals, Halogenated compounds, Peroxides, Bases.

Hazardous Decomposition Products

Carbon oxides, Sulphur oxides

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Expected to be a low ingestion hazard.

Inhalation: May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.

Skin Contact: Prolonged skin contact may cause temporary irritation.

Eye Contact: Causes serious eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

LD50 Oral - ≥ 4.7 g/kg

Dermal

LD50 Dermal Rabbit - ≥ 12,800 mg/kg

Inhalation

LC50 Inhalation - ≥ 40 mg/l

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

May lead to skin irritation

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory/Skin Sensitization

Not expected to be a skin or respiratory sensitizer.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

Does not impair fertility. Not a developmental toxicant.

Specific Target Organ Toxicity – Single Exposure

May cause drowsiness or dizziness.

Specific Target Organ Toxicity – Repeated Exposure

Prolonged inhalation may be harmful.

Aspiration Hazard

No data available.

Other Effects

No data available

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Fish: LC50 Bluegill (*Lepomis macrochirus*) > 1400 mg/l, 96 hours

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

No data available

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

2-PROPANOL = 0.05

Mobility in Soil

No data available

Other Adverse Effects

No data available

Section 13: Disposal Considerations

Disposal Instructions

Dispose of it in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs – including disposal, recycling and waste stream reduction.

Contaminated Packaging

Empty remaining contents. Dispose of unused products. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number: UN1219

UN Proper Shipping Name: Isopropanol

Technical Name: -

Hazard Class: 3

Subsidiary Hazard Risk: -

Packing Group: II

DOT Label/Placard Exemptions: Not determined

Special Provisions: IB2, T4, TP1

Packaging Exceptions: 49CFR 173.150, 4b

Packaging Non-Bulk: 49CFR 173.202

Packaging Bulk: 49CFR 173.242

Reportable Quantity (RQ): No

Marine Pollutant: No

Poison Inhalation Hazard: No

Special precautions for user: Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Emergency Response Guidebook (ERG) #: 129

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: Yes

Sudden Release of Pressure: No

Reactive: No

Acute (Immediate) Health Hazard: Yes

Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313:
Isopropyl Alcohol (CAS# 67-63-0)

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

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

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2

Chronic Health Hazard: /

Flammability: 3

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2

Fire Hazard: 3

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

EC50 - Effective concentration, 50%

IDHL - Immediately Dangerous to Life and Health

Kg - Kilogram

l - Liter

lb - Pound

LC50 - Lethal Concentration, 50%

LD50 - Lethal Dose, 50%

mg - milligram

ml - milliliter

N/A - Not Applicable

N/D - Not Determined

PEL - Permissible Exposure Limit

REL - Recommended Exposure Limit

STEL - Short-term Exposure Limit

TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists

AIHA - American Industrial Hygiene Association

BEI - Biological Exposure Indices

CAS - Chemical Abstracts Service

DOT - US Department of Transportation

EPA - US Environmental Protection Agency

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - Intermediate Bulk Container

IMDG - International Maritime Dangerous Goods

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - US Occupational Health and Safety Administration

SARA - US EPA Superfund Amendments and Reauthorization Act

TSCA - US EPA Toxic Substances Control Act

UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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