Emergency Assistance (CHEMTEL: 1.800.255.3924 (USA)
Supplier: Hospeco Brands Group
| 800-942-9199 | Orders@hospecobrands.com | www.hospecobrands.com

SAFETY DATA SHEET (SDS)

Isopropyl Alcohol 70%

1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF SUPPLIER

Product Identifier: HBG703016797

Synonyms: Isopropanol; Isopropyl Alcohol; 2-Propanol; sec-propyl alcohol; dimethylcarbinol; sec-propanol; Rubbing alcohol; 1-Methylethanol; IPA 70%; propan-2-ol

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

Recommended use of the chemical and restrictions on use:

Supplier Details:

Hospeco Brands Group
26301 Curtiss-Wright
Parkway, Suite 200
Cleveland, OH 44143

Emergency Contact:

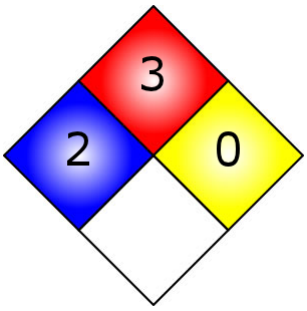
CHEMTEL: 1.800.255-3942 (USA)

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 statement(s)

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

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P337 + P313	If eye irritation persists: Get medical attention.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye and face protection.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P405	Store locked up.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, and lighting equipment.
P242	Use only non-sparking tools.
P102	Keep out of reach of children.
P210	Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P501	Dispose of contents and container to an approved waste disposal plant.

P233	Keep container tightly closed.
P304 + P340	IF INHALED: Remove victim 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. Seek medical attention.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fumes/gas/mist/vapors.
P303 + P361 + P353	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.

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	Causes eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Skin	Harmful if absorbed through skin. Causes skin irritation.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical identity: Isopropyl Alcohol 70%
Common name / Synonym: Isopropanol; Isopropyl Alcohol; 2-Propanol; sec-propyl alcohol; dimethylcarbinol; sec-propanol; Rubbing alcohol; 1-Methylethanol; IPA 70%
CAS number: 67-63-0
EINECS number: 200-661-7
ICSC number: 0554
RTECS #: NT8050000
UN #: UN1219
EC #: 603-117-00-0

% Weight	Material	CAS
63	Isopropyl Alcohol	67-63-0

37	Water	7732-18-5

4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Skin

Immediately flush affected area with plenty of water while removing contaminated clothing. Wash contaminated clothing before reuse.Contact a doctor. If irritation persists, get medical attention.

Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Eyes

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

Ingestion

DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Seek medical attention. Never give andything my mouth to an unconcious individual.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

SMALL FIRE: Use dry chemicals, CO2, 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)

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.

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 incompatibilites:

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.

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 (ACGIH)	TWA	200 ppm	

Isopropyl Alcohol	US(ACGIH)	STEL	400 ppm	
Isopropyl Alcohol	US (OSHA)	TWA	400 ppm	
Isopropyl Alcohol	US (OSHA)	STEL	500 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance *(physical state, color, etc.)*	Liquid. Colorless, clear.
Freezing point	-89 °C (-127 °F)
Initial boiling point and boiling range	83 °C (181°F)
Flash point	18.3 °C (64.9 °F) - Closed Cup
Flammability (solid, gas)	Flammable
Upper / Lower flammability or explosive limits	2% (V) / 12.7% (V)
Vapor pressure	43.2 hPa (32.4 mmHg) at 20.0 °C (68.0 °F)
Vapor Density	2.1
Solubility(ies)	soluble

Auto-ignition temperature	399 °C (750°F)
Formula (ISOPROPYL ALCOHOL)	C3H8O
Formula (WATER)	H2O
Molecular Weight (ISOPROPYL ALCOHOL)	60.1 g/mol
Molecular Weight (WATER)	18.02 g/mol

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

- Water 7732-18-5

Product Summary:
Do data available for the teratogenic, mutagenic, or reproductive toxicity effects of this product.

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
Inhalation	May cause respiratory tract irritation upon inhalation.

- 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. This substance is not classified for carcinogenicity by IARC, OSHA, NTP, or the EPA.

Acute Toxicity:

LC50 (vapor)	Rat	19,000 ppm	8 hours
LD50 (oral)	Rat	4,396 mg/kg	
LD50 (oral)	Mouse	3,600 mg/kg	
LD50 (skin)	Rabbit	12,870 mg/kg	

Irritation:

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

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

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	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. 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.
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.

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 mucosal membranes, skin, respiratory system. Can cause liver and kidney damage.

12. ECOLOGICAL INFORMATION

- Water 7732-18-5

Ecotoxicity (aquatic and terrestrial, where available):
Ecotoxicity
Not Applicable

- Isopropyl Alcohol 67-63-0

Ecotoxicity (aquatic and terrestrial, where available):
Acute Fish Toxicity (ISOPROPANOL)
LC50 / 96 hours Pimephales promelas: 9,640 mg/L

Toxicity to Aquatic Plants (ISOPROPANOl)
EC50 / 72 hours Scenedesmus subspicatus > 1,000 mg/L

Toxicity to Microorganisms (ISOPROPANOL)
EC50 / 3 hours Activated sludge > 1,000 mg/L

Persistence and degradability:
Readily biodegradable (77% degraded in 10 days). Expected to be hydrolytically stable, but rapidly degraded following atmospheric releases.

Bioaccumulative potential:
Bioconcentration factor (BCF) of 3.16. (Predicted bioconcentration factor). Significant bioaccumulation is not expected based on predicted BCF of 3.16.

13. DISPOSAL 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.

14. TRANSPORT INFORMATION

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

UN number	UN1219
UN proper shipping name	Isopropanol
Transport hazard class(es)	3
Packing group *(if applicable)*	II

IMDG

UN-Number: UN1219 Class: 3 Packing Group: II
EMS-No: F-E, S-D
Proper shipping name: ISOPROPANOL
Marine pollutant: No

IATA

UN-Number: UN1219 Class: 3 Packing Group: II
Proper shipping name: Isopropanol

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: ISOPROPY L 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 Components
Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01

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

Water CAS-No. 7732-18-5

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

Water CAS-No. 7732-18-5

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

16. OTHER INFORMATION:
INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

Disclaimer
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