Safety Data Sheet

70% Isopropyl Alcohol

Section 1. Identification

Product Identifier	70% Isopropyl Alcohol
Synonyms	MSD_SDS0200; MCHEM145
Manufacturer Stock Numbers	MCHEM145
Recommended use	General use organic solvent
Uses advised against	N/A
Manufacturer Contact Address	Medline 3 Lakes Drive Northfield, IL, 60093 US

Phone	Emergency Phone	Fax
(800) 633-5463	(800) 424-9300 CHEMTREC	(847) 643-4436

Website

www.Medline.com

Section 2. Hazards Identification

Classification	EYE IRRITANT - Category 2A FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) - Category 3
Signal Word	Danger
Pictogram	

Hazard Statements	Causes serious eye irritation Highly flammable liquid and vapor May cause drowsiness or dizziness
Precautionary Statements	
Response	Call a poison center/doctor/ ... /if you feel unwell. If eye irritation persists: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Prevention	Avoid breathing dust/fume/gas/mist/ vapors/spray. Ground/bond container and receiving equipment. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep container tightly closed. Take precautionary measures against static discharge. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye and face protection.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container to ...
General	Keep out of reach of children
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	
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. Ingredients

CAS	Ingredient Name	Weight %
67-63-0	Isopropyl alcohol	68% - 72%
7732-18-5	Water	28% - 32%

Occupational exposure limits, if available, are listed in Section 8.

Section 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 Contact:	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.
Eye Contact:	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 anything by mouth to an unconscious individual.

Section 5. Fire Fighting Measures

Suitable 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.
Unsuitable Extinguishing Media	N/A
Specific hazards arising from the chemical:	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.
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 incompatibilites:	Keep container tightly closed in a cool, dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Ingredient Name	ACGIH TLV	OSHA PEL	STEL
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm STEL: 500 ppm	N/A
Water	N/A	N/A	N/A

Personal Protective Equipment	Goggles, Gloves, Apron, Face Shield
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.
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 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

Physical State	Liquid
Color	Colorless, clear.
Odor	N/A
Odor Threshold	N/A
Solubility	Miscible
Partition coefficient Water/n-octanol	log Pow: 0.05
VOC%	N/A
Viscosity	N/A
Specific Gravity	1
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	N/A
FP Method	N/A
pH	N/A
Melting Point	18.3°C (64.9 °F)
Boiling Point	N/A
Boiling Range	83 °C (181°F)
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	Flammable
Decomposition Temperature	N/A
Auto-ignition Temperature	399 °C (750°F)
Vapor Pressure	43.2 hPa (32.4 mmHg) at 20.0 °
Vapor Density	2.1

Upper / Lower flammability or explosive limits:	12.7% (V) / 2% (V)
Molecular Weight (ISOPROPYL ALCOHOL):	60.1 g/mol
Molecular Weight (WATER):	18.02 g/mol

Section 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:	Carbon oxides are expected to be, under fire conditions, the primary hazardous decomposition products.

Section 11. Toxicological Information

Product summary:

Water CAS No. 7732-18-5
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.

Carcinogenicity:

Water CAS No. 7732-18-5

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:

Inhalation
Water CAS No. 7732-18-5
Can be harmful if inhaled. Can cause irritation to upper respiratory tract.

Product Summary:

Isopropyl Alcohol CAS No. 67-63-0
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.

Acute Toxicity:

Isopropyl Alcohol CAS No. 67-63-0
LC50 Inhalation
Rat
16,000 mg/kg
8 hours

LD50 Dermal
Rabbit
12,800 mg/kg

LD50 Oral
Rat
5045 mg/kg
Behavioral abnormalities observed such as altered sleep time and decreased activity.

Irritation:

Isopropyl Alcohol CAS No. 67-63-0

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:

Isopropyl Alcohol CAS No. 67-63-0

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:

Isopropyl Alcohol CAS No. 67-63-0

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

Ecotoxicity (aquatic and terrestrial, where available):

Water CAS No. 7732-18-5

Ecotoxicity: Not Applicable

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Other adverse effects: No data available Acute Fish Toxicity (ISOPROPANOL): LC50 / 96 hours Pimephales promelas: 9,640 mg/L

Toxic to Daphnia and Other Aquatic Invertebrates: EC50 / 24 h / Water Flea - 5,102 mg/L

Toxicity to Aquatic Plants (ISOPROPANOL): EC50 / 72 hours Desmodesmus subspicatus > 2,000 mg/L

Toxicity to Daphnia and other aquatic invertibrates: Immobilization EC50 / 24h / Water flea - 6,851 mg/L

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Other adverse effects: No data available

Section 13. Disposal

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.

Section 14. Transport Information

UN Number	1219
UN Proper Shipping Name	Isopropanol
DOT Classification	3
Packing Group	II
IMDG - Packing Group:	II
IMDG - Hazard Class:	3
IMDG - EMS-No:	F-E, S-D

Marine Pollutant:	No
IATA - Packing Group:	II
IATA - Hazard Class:	3

Section 15. Regulatory Information

SARA 311/312:	Refer to Section 2 of the SDS.
SARA 302:	N.A.
SARA 304:	N.A.
SARA 313:	Isopropyl Alcohol.
TSCA:	All components are listed or exempt.
CERCLA Hazardous Substance List:	N.A.
Clean Air Act (CAA) Section 112, 112 (r):	N.A.
New Jersey Right to Know Components:	ISOPROPYL ALCOHOL.
Pennsylvania Right to Know Components:	2-PROPANOL.
Rhode Island Right to Know Components:	isopropyl alcohol.

Section 16. Other Information

Revision Date	2/20/2024
Legend	N.A. - Not Applicable N.E. - Not Established N.D. - Not Determined
Additional Information:	The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.