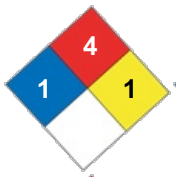
Medi-Kay Laboratories

Isopropyl Alcohol 99%

NFPA



SECTION 1 : Chemical Product and Company Identification

MSDS Name: Isopropyl Alcohol 99%
Manufacturer Name:Medi-Kay Laboratories
Address:

440 E. Helm
Brookfield, MO. 64628

Emergency Telephone Numbers:
Day 816-258-2291
Night 816-258-5514

Manufacturer MSDS Revision Date:

9-1-93

Synonyms:

2-Propanol
Isopropanol Anhydrous
Isopropyl Alcohol 99%

CAS Number: 000067-63-0
Chemical Family: Aliphatic Alcohol
Chemical Formula: CH(3)CH(OH)CH(3)
NFPA

Health: 1
Flammability: 4
Reactivity: 1
Other:

Hazard Rating:
Least = 0
Slight = 1
Moderate = 2
High = 3
Extreme = 4

Chemical Name:
2-Propanol
Isopropanol Anhydrous
Isopropyl Alcohol 99%

S.A.R.A. Information:
Hazards:
Fire: Yes
Pressures: Not Applicable
Reactivity: Not Applicable
Acute: Yes
Chronic: Not Applicable
Physical Data: Not Applicable
Mixture: Not Applicable
Pure: Yes
Solid: Not Applicable
Liquid: Yes
Gas: Not Applicable

Product Codes:

16-10869-06

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SECTION 2 : Hazardous Ingredients/Identity Information

Chemical Name	CAS#	Percent	
Isopropyl Alcohol	67-63-0	99-100%	

OSHA PEL TWA: 8 hr 400 ppm

OSHA STEL/Ceiling: 500 ppm
ACGIH STEL/Ceiling: 500 ppm
NIOSH REL: 10 hr 400 ppm
NIOSH STEL/Ceiling: Ceiling: 15 min 800 PPM

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SECTION 3 : Physical And Chemical Characteristics

Physical State/Appearance:
Liquid

Color:
Colorless

Odor:
Alcohol Type Odor

pH:
Neutral

Vapor Pressure:
(MM HG.): 32.8 @ 68 deg F.
30.003 (Anhydrous) @ 68 deg F.

Vapor Density:
(AIR=1): 2.1

Boiling Point:
177.4 deg F. Range 179.96 to 181.04 (Anhydrous)

Solubility:
In Water: Complete

Specific Gravity:
(H(2)O=1): 0.786 @ 68/68 deg C

Evaporation Point:
(n Butyl Acetate=1): 1.4, 2.4 (Anhydrous)

Percent Volatile:
By Volume: > 99

FlashPoint:
55 deg. F

Upper Flammable Explosive Limit:
(% Volume in Air): 12.1% at 151 deg F

Lower Flammable Explosive Limit:
(% Volume in Air): 2.5% at 79 deg F

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SECTION 4 : Fire And Explosion Hazards

Flash Point:
55 deg. F

Flash Point Method:
TCC

Upper Flammable or Explosive Limit: (% Volume in Air): 12.1% at 151 deg F
Lower Flammable or Explosive Limit: (% Volume in Air): 2.5% at 79 deg F
Extinguishing Media:
Water fog, Dry chemical, CO(2), "Alcohol" Foam.

Fire Fighting Instructions:
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Water may be ineffective for fire fighting. Use water spray to keep fire exposed containers cool and to protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with alcohol type foam and dry chemical. Try to cover liquid spills with foam.

Unusual Fire Hazards:
Flammable liquid (see section 10). Vapors are heavier than air and may travel considerable distance to a source of ignition and flash back. Run-off from fire control may cause pollution.

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SECTION 5 : Health Hazards

Isopropyl Alcohol:

Potential Health Effects:

Eye Contact:

Vapor irritates eyes. Liquid will damage eye tissue if not removed promptly.

Skin Contact:

Prolonged or repeated contact can cause dryness, irritation, defatting and dermatitis. Acute dermal LD(50) (Rabbit); 1300 mg/kg mildly irritating to the skin, low order of toxicity.

Inhalation:

High concentrations of vapor can irritate respiratory tract, are anesthetic, and may cause central nervous system (CNS) depression. Early CNS depression may be evidenced by giddiness, headache, dizziness and nausea. Acute Inhalation LC(50) (Rat) 8 Hrs: 12000 ppm. Negligible hazard at ambient temperatures 0 to 100 deg. F (18 to 38 deg. C)

Ingestion:

May cause marked and persistent nausea, vomiting and abdominal pain. Generally considered to have a low order of acute oral toxicity. Acute oral LD(50) (Rat): 5840 MG/KG. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

Aggravation of Pre-Existing Conditions:

Pre-existing skin. Eye and respiratory disorders may be aggravated by exposure to IPA.

Threshold Limit Value: As indicated - Section 1. 50% Odor Recognition Threshold is 7.5 ppm.
(For analytical method see section is reference (1).

Other Information:
Supplemental Health Information:
Intentional abuse, misue or other massive exposure to IPA may result in difficult breathing, nausea, vomiting and headache accompanied by various degrees of CNS depression. Coma and/or death are even possible.

In Rats:
1 Liver and kidney enlargement has been seen at levels > 6250 ppm in drinking water.
2. Anemia has been seen at 12500 and 25000 ppm in drinking water.

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SECTION 6 : Emergency And First Aid Procedures

Eye Contact:

Flush with water for 15 minutes while periodically holding eyelids open. Get medical attention.

Skin Contact:

Wash with soap and water. Remove contaminated clothing and shoes; do not reuse until cleaned. If persistent irritation occurs, get medical attention.

Inhalation:

Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Ingestion:

Do not induce vomiting. Keep at rest. If vomiting occurs spontaneously. Keep head below hips to prevent aspiration of liquid into lungs. Get medical attention at once!

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SECTION 7 : Reactivity Data

Chemical Stability:

Stable

Incompatibilities with Other Materials:

(Materials to avoid for purposes of transport, handling and storage only): Alkylene oxides, acid anhydrides, Isocyanates, Organometallic contaminants, Inorganic Acids, Alkanolamines, Caustics, Amines, Ammonia, Chlorinated compounds, Organic Acids, Halogens, Phosphorus, Trichloride, Aldehydes, Monomers, Polymerizable esters, and storing this product in Aluminum vessels.
Avoid heat, sparks, open flames, and contact with strong oxidizing agents, will attack aluminum if the surface oxide film is penetrated (e.g. by abrasion or high temperature).

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SECTION 8 : Precautions For Safe Handling

Small Spill:

Take up with an absorbent material and place in non-leaking containers: Seal tightly for proper disposal.

Waste Disposal:

Place in a disposal facility approved under RCRA regulations for hazardous waste, use non-leaking containers, seal tightly and label properly. Assure compliance with local, state, and federal regulations. EPA-Resource conservation and recovery act (RCRA) regulations, as produced, this material is a product and not a waste. If discarded or intended to be discarded as is, it is an ignitable hazardous waste as defined in RCRA (40 CFR 261.21).

EPA Waste Number:

D001

DOT Shipping Name:

Isopropanol

DOT Hazard Class: Flammable Liquid

DOT Identification Number: UN1219

DOT Subpart E Labeling Requirement: Flammable Liquid

Reportable Quantity: DOT: None

Other Information: Not Applicable

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SECTION 9 : Control Measures

Ventilation System:

Required: Face velocity > 60 LFPM in confined space. Use explosion-proof ventilation equipment.

Skin Protection Description:

Chemically resistant gloves, Nitrile, Neoprene or natural rubber preferred.

Eye/Face Protection:

Chemical splash goggles or face shield.

Respiratory Protection:

For concentrations above PEL/TLV and up to 1000 PPM, use chemical cartridge respirator with a full facepiece and organic vapor cartridge(s), per NIOSH/OSHA, for higher concentrations, see Ref. (2), Sec, 10.

Other Protective:

An eye bath and washing facilities should be available.

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SECTION 10 : Other Information

Isopropyl Alcohol:

SARA:

Physical Data: Not Applicable
Mixture: Not Applicable
Pure: Yes
Solid: Not Applicable
Liquid: Yes
Gas: Not Applicable

Section 304:

EPA-Comprehensive Environmental Response, Compensation and Liability Act. Under EPA-CERCLA ("Superfund") releases to air, land or water may be reportable to the national response center, 800-424-8802 (Circumstances surrounding the release and cleanup determine reportability). This product is not subject to CERCLA Reporting Requirements.

Section 312 Hazard Category:

Pressures: Not Applicable
Reactivity: Not Applicable
Chronic: Not Applicable

Acute: Yes

Fire: Yes

OSHA 29 CFR 1200:

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standard Hazard Communication Rule.

NFPA:

Fire Hazard: 4 = Extreme

Health: 1 = Slight

Reactivity: 1 = Slight

Label Text:

Additional Information:
This information may be of importance to you.

Keep liquid and vapor away from heat, sparks and flame. Surfaces that are sufficiently hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.
Vapors may accumulate and travel to ignition sources distant from the handling site; flash fire can result. Keep containers closed when not in use. Use with adequate ventilation. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat flame, sparks, static electricity, or other sources of ignition: They may explode and cause injury or death. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Aluminum containers are not recommended for storage.
Minimize skin contact. Wash with soap and water before eating, drinking, smoking or using toilet facilities.
No smoking where material is used or stored.

MSDS Revision Date:

9-1-93

MSDS Author:

Robert Claiborne
Vice-President
Director of Regulatory Affairs
Quality control

BOB Claiborne,
Dir. Of Quality Cont. Regulatory Affairs.

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Hazard Rating:
Least = 0
Slight = 1
Moderate = 2
High = 3
Extreme = 4

Reference:
(1) NIOSH manual of analytical methods. 2nd edition, volume 2. Issued by the national institute for occupational safety and health. Washington, U.S. Government

printing office, 1977, method S65.
(2) NIOSH/OSHA pocket guide to chemical hazards DHHS (NIOSH) publication No. 85-114.