

ISOPROPYL ALCOHOL 99%

MATERIAL SAFETY DATA SHEET

In case of Emergency call CHEMTREC 1-800-424-9300

**ISOPROPYL ALCOHOL 99%**



MSDS No.  
AL01

- [SECTION 1: PRODUCT AND COMPANY IDENTIFICATION](#)
- [SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS](#)
- [SECTION 3: HAZARDS IDENTIFICATION](#)
- [SECTION 4: FIRST AID MEASURES](#)
- [SECTION 5: FIRE FIGHTING MEASURES](#)
- [SECTION 6: ACCIDENTAL RELEASE MEASURES](#)
- [SECTION 7: HANDLING AND STORAGE](#)
- [SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION](#)
- [SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES](#)
- [SECTION 10: STABILITY AND REACTIVITY](#)
- [SECTION 11: TOXICOLOGICAL INFORMATION](#)
- [SECTION 12: ECOLOGICAL INFORMATION](#)
- [SECTION 13: DISPOSAL CONSIDERATION](#)
- [SECTION 14: TRANSPORT INFORMATION](#)
- [SECTION 15: REGULATORY INFORMATION](#)
- [SECTION 16: ADDITIONAL INFORMATION](#)
- [SECTION 17: LABEL INFORMATION](#)

---

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

SUPPLIER.....K-Chem, Inc.  
PO Box 530632  
Birmingham, AL 35253  
EMERGENCY PHONE NUMBER(S)...CHEMTREC DAY OR NIGHT 1-800-424-9300  
REVISION DATE.....1998/12/18

# ISOPROPYL ALCOHOL 99%

REVISION.....SECTION 11 - LD50 ORAL  
SECTION 11 - LD50 DERMAL  
SECTION 11 - LC50 INHALATION  
SECTION 15 - EINECS INVENTORY  
SECTION 2 - TLV

TRADE NAMES/SYNONYMS:.....ISOPROPANOL; IPA 99; DIMETHYLCARBINOL; ISOHOL;  
PETROHOL; LUTOSOL; PROPAN-2-OL; 2-PROPANOL;  
sec-PROPYL ALCOHOL; UN1219.

CHEMICAL FAMILY.....ALIPHATIC ALCOHOL

PRODUCT USE.....MANUFACTURE OF ACETONE AND ITS DERIVATIVES;  
MANUFACTURE OF GLYCEROL AND ISOPROPYL ACETATE;  
SOLVENT; DEICING AGENT FOR LIQUIFIED FUELS;  
DEHYDRATING AGENT; PRESERVATIVE; DENATURANT.

CHEMICAL FORMULA.....(CH<sub>3</sub>)<sub>2</sub>-CH<sub>2</sub>-O

HAZARD RATING

FIRE.....3  
HEALTH.....2  
REACTIVITY.....0

---

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	%CONC.	C.A.S.	ACGIH-TLV	OSHA-PEL
ISOPROPYL ALCOHOL	99.0	67-63-0	400 PPM TWA 500 PPM STEL	400 PPM TWA 500 PPM STEL
			* 1998 ACGIH NOTICE OF INTENDED CHANGE 200 PPM TWA 400 PPM STEL	

---

## SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW.....**EXTREMELY FLAMMABLE. INHALATION AND INGESTION HAZARD. SEVERE EYE IRRITANT.**  
**KEEP AWAY FROM ALL SOURCES OF HEAT, OPEN FLAMES AND OTHER IGNITION SOURCES. AVOID ALL SKIN AND EYE CONTACT. AVOID BREATHING VAPOURS AND MISTS. USE ONLY WITH ADEQUATE VENTILATION. BOND AND GROUND ALL CONTAINERS. KEEP AWAY FROM INCOMPATIBLE MATERIALS. WASH THOROUGHLY AFTER HANDLING.**

### POTENTIAL HEALTH EFFECTS:

INGESTION.....SERIOUS ILLNESS MAY OCCUR FROM AS LITTLE AS 10 ml INGESTED. MAY BE FATAL IF INGESTED IN QUANTITIES GREATER THAN 100 ml.

SKIN CONTACT.....IRRITANT, MILDLY TOXIC.  
MAY CAUSE IRRITATION, REDNESS AND DEFATTING.

INHALATION.....NARCOTIC.  
MAY CAUSE COUGHING, DIZZINESS, SHORTNESS OF BREATH AND INTOXICATION. INTENTIONAL INHALATION OF VAPOURS MAY CAUSE PERMANENT DAMAGE TO THE CENTRAL NERVOUS SYSTEM.

EYE CONTACT.....SEVERE IRRITANT.  
MAY CAUSE CORNEAL BURNS AND EYE DAMAGE.

MEDICAL CONDITIONS

# ISOPROPYL ALCOHOL 99%

AGGRAVATED.....PERSONS WITH CHRONIC RESPIRATORY, SKIN OR EYE DISEASES.

SUBCHRONIC (TARGET ORGAN)  
EFFECTS.....CENTRAL NERVOUS SYSTEM DEPRESSANT  
POISONING MAY ALSO AFFECT THE LIVER AND KIDNEYS

CHRONIC EFFECTS.....REPEATED OR PROLONGED SKIN CONTACT MAY CAUSE DERMATITIS. PROLONGED OR REPEATED EYE CONTACT MAY CAUSE EYE DAMAGE. PROLONGED OR INTENTIONAL INHALATION OF VAPOURS MAY CAUSE SERIOUS HARM.

CARCINOGENICITY  
NTP.....NO  
IARC.....NO  
OSHA.....NO

OTHER TOXICOLOGICAL DATA...NARCOTIC

PRINCIPAL ROUTES OF ENTRY...EYE CONTACT  
SKIN CONTACT  
INHALATION  
INGESTION  
SKIN ABSORPTION

---

## SECTION 4: FIRST AID MEASURES

EYE CONTACT.....WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.  
IF PAIN, BLINKING, TEARS OR REDNESS CONTINUES THE VICTIM SHOULD CONSULT AN OPHTHAMOLOGIST.

SKIN CONTACT.....REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION.....REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. PERFORM ARTIFICIAL RESPIRATION IF NECESSARY. KEEP PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION.....ASPIRATION HAZARD !  
OBTAIN IMMEDIATE MEDICAL ASSISTANCE - DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO AVOID ASPIRATION.

NOTE TO PHYSICIAN.....TREAT SYMPTOMATICALLY

---

## SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT.....53°F (12°C)  
METHOD.....CLOSED CUP  
IGNITION TEMPERATURE.....852°F (455°C)  
UPPER FLAMMABLE LIMIT.....12.0  
LOWER FLAMMABILITY LIMIT....2.5  
SENSITIVITY TO MECHANICAL  
IMPACT.....NO  
SENSITIVITY TO STATIC  
DISCHARGE.....YES

# ISOPROPYL ALCOHOL 99%

EXTINGUISHING MEDIA.....FOR SMALL FIRES:  
DRY CHEMICAL, CARBON DIOXIDE, WATER-SPRAY  
OR ALCOHOL RESISTANT FOAM  
FOR LARGE FIRES:  
WATER-SPRAY, FOG OR ALCOHOL RESISTANT FOAM

SPECIAL FIREFIGHTING  
PROCEDURES.....VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A  
CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION  
AND FLASH BACK  
VAPOR-AIR MIXTURES ARE EXPLOSIVE  
CONSIDER EVACUATION DOWNWIND  
WEAR APPROPRIATE PROTECTION EQUIPMENT

IF POSSIBLE, MOVE CONTAINERS FROM FIRE AREA,  
APPLY COOLING WATER TO SIDES OF CONTAINERS  
ENSURING THAT YOU STAY AWAY FROM THE ENDS OF  
TANKS (BULK STORAGE, RAIL CARS, TANK TRUCKS).  
EVACUATE IMMEDIATELY IF TANKS ARE DISCOLORED OR  
IF RISING SOUND IS EMITTED FROM TANKS, MINIMUM  
EVACUATION RADIUS SHOULD BE ½ MILE.

FOR MASSIVE FIRE USE UNMANNED HOSE HOLDERS OR  
MONITOR NOZZLES.

WATER MAY BE INEFFECTIVE IF FLOW OF FLAMMABLE  
LIQUID IS NOT STOPPED.

FLAMMABILITY CLASS (OSHA)...IB

---

## SECTION 6: ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN FOR  
SPILLS OR RELEASES.....SHUT OFF SOURCE, IF WITHOUT RISK.  
EVACUATE NON-ESSENTIAL PERSONNEL.  
ELIMINATE ALL SOURCES OF IGNITION.  
DIKE AREA TO PREVENT SPREADING.  
PREVENT RUNOFF INTO SEWERS, WATERWAYS, DITCHES,  
OR STREAMS.  
SHOVEL OR PUMP TO A SALVAGE TANK USING  
NON-SPARKING EQUIPMENT.  
ABSORB RESIDUAL MATERIAL WITH AN INERT  
ABSORBENT.  
SHOVEL ABSORBED RESIDUE INTO PROPERLY  
IDENTIFIED DRUMS FOR LATER DISPOSAL.  
CONTACT LOCAL OFFICIALS AS REQUIRED.

---

## SECTION 7: HANDLING AND STORAGE

HANDLING PROCEDURES.....THIS PRODUCT MUST BE HANDLED BY PROPERLY  
TRAINED PERSONNEL.  
USE PROPER HANDLING EQUIPMENT FOR SPECIFIC  
HANDLING OPERATION.  
WHEN TRANSFERRING MATERIAL FROM ONE CONTAINER  
TO ANOTHER ENSURE BONDING AND GROUNDING TO  
PREVENT STATIC DISCHARGE.  
DO NOT BREATHE VAPOURS.  
AVOID ALL SKIN AND EYE CONTACT BY WEARING  
PROPER PROTECTIVE EQUIPMENT.

# ISOPROPYL ALCOHOL 99%

HANDLE AWAY FROM ALL SOURCES OF IGNITION AND INCOMPATIBLE MATERIALS.

STORAGE PROCEDURES.....STORE AWAY FROM ALL SOURCES OF IGNITION.  
STORE AWAY FROM ALL INCOMPATIBLE MATERIALS.  
ENSURE THAT THE STORAGE AREA IS ADEQUATELY VENTILATED AND EQUIPPED WITH PROPER EMERGENCY RESPONSE EQUIPMENT IN THE EVENT OF LEAK, SPILL, OR FIRE.  
OBSERVE ALL FEDERAL, STATE, AND LOCAL REGULATIONS WHEN STORING THIS PRODUCT.

---

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS.....ENSURE THAT VENTILATION SYSTEM USED IS DESIGNED TO MEET PUBLISHED EXPOSURE LIMITS.  
PROPER HANDLING SYSTEMS SHOULD BE DESIGNED FOR SPECIFIC HANDLING OPERATION.

RESPIRATORY PROTECTION.....THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE WORK PLACE, MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND BE JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

PROTECTIVE CLOTHES.....IMPERVIOUS GLOVES AND CLOTHING TO PREVENT SKIN CONTACT.

EYE AND FACE PROTECTION.....SAFETY GOGGLES AND A FACE SHIELD

OTHER PROTECTIVE EQUIPMENT..WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES MAY BE EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.  
WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S SKIN MAY BE EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE A QUICK DRENCH SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

VENTILATION.....PROVIDE LOCAL EXHAUST VENTILATION TO MEET PUBLISHED EXPOSURE LIMITS. VENTILATION EQUIPMENT SHOULD BE EXPLOSION-PROOF IF EXPLOSIVE CONCENTRATIONS OF DUST, VAPOR OR FUME ARE PRESENT.

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

VAPOR DENSITY (AIR=1).....2.1  
FREEZING/MELTING POINT.....-128°F (-89°C)  
PHYSICAL STATE.....LIQUID  
ODOR.....ALCOHOL ODOR  
COLOR.....CLEAR, COLORLESS  
ODOR THRESHOLD (PPM).....~200 ppm  
VOLATILES % VOLUME.....100.0  
EVAPORATION RATE (BUTYL ACETATE=1.0).....NO DATA  
SPECIFIC GRAVITY (WATER=1.0).....0.78  
MOLECULAR WEIGHT.....60.11

## ISOPROPYL ALCOHOL 99%

ACID/ALKALINITY (MEQ/G).....NO DATA  
PH.....NO DATA  
VOC (EPA METHOD 24).....780 g/L  
SOLUBILITY IN ORGANIC  
SOLVENTS.....ETHER  
                                  CHLOROFORM  
                                  MOST ORGANIC SOLVENTS  
BOILING POINT.....180°F (82°C)  
VAPOR PRESSURE MM/HG  
(20°C).....3.3  
SOLUBILITY IN WATER (20°C)..100.0 %

---

## SECTION 10: STABILITY AND REACTIVITY

STABILITY.....STABLE  
HAZARDOUS POLYMERIZATION....WILL NOT OCCUR  
HAZARDOUS THERMAL  
DECOMPOSITION/COMBUSTION  
PRODUCTS.....OXIDES OF CARBON  
INCOMPATIBILITY  
(MATERIALS TO AVOID).....STRONG OXIDIZERS; ALUMINIUM METAL; NITROFORM;  
                                  OLEUM.  
CONDITIONS TO AVOID.....EXPOSURE TO HEAT, FLAME OR IGNITION SOURCES.  
                                  CONTACT WITH INCOMPATIBLE SUBSTANCES.

---

## SECTION 11: TOXICOLOGICAL INFORMATION

LD50 ORAL.....ISOPROPYL ALCOHOL 99 % - RTECS 97/12 NT8050000  
                                  5045 mg/kg RAT  
                                  3600 mg/kg MOUSE  
                                  6410 mg/kg RABBIT  
LD50 DERMAL.....ISOPROPYL ALCOHOL 99% - RTECS 97/12 NT8050000  
                                  12800 mg/kg RABBIT  
LC50 INHALATION.....ISOPROPYL ALCOHOL 99% - RTECS 97/12 NT8050000  
                                  16000 ppm 8 HOURS RAT  
OTHER.....EXPERIMENTAL TERATOGENIC AND REPRODUCTIVE  
                                  EFFECTS. MUTATION DATA REPORTED. QUESTIONABLE  
                                  CARCINOGEN.  
AMES TEST RESULTS.....NO DATA AVAILABLE COVERING AMES TEST RESULTS  
                                  ISOPROPYL ALCOHOL 99% - RTECS 95/01 NT8050000  
                                  SKIN:  
                                  RABBIT 500 mg MILD  
  
                                  EYE:  
                                  SEVERE - 100 mg RABBIT; MODERATE - 10 mg  
                                  RABBIT; MODERATE 100 mg/24 HOURS RABBIT

---

## SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL  
INFORMATION.....NO DATA AT THIS TIME  
CHEMICAL FATE INFORMATION...NO DATA AT THIS TIME

---

## SECTION 13: DISPOSAL CONSIDERATION

DISPOSAL METHOD.....IN ACCORDANCE WITH FEDERAL, STATE, LOCAL  
REGULATIONS  
REPORTABLE QUANTITY.....NOT APPLICABLE

---

## SECTION 14: TRANSPORT INFORMATION

DOT SHIPPING NAME.....ISOPROPRANOL  
DOT HAZARD CLASS.....3 - FLAMMABLE LIQUID  
PACKAGING GROUP II  
DOT LABELS.....FLAMMABLE LIQUID  
UN NUMBER.....UN1219  
PLACARDS.....IN ACCORDANCE WITH DOT 49CFR173 AND 49CFR243  
IATA.....CLASS 3  
IMO/IMDG.....3.2  
EUROPEAN CLASS.....FLAMMABLE LIQUID  
TRANSPORT EMERGENCY  
PROCEDURES.....CONTACT CHEMTREC 1-800-424-9300  
  
OTHER.....NOT APPLICABLE

---

## SECTION 15: REGULATORY INFORMATION

SARA SECTION 302.....NO  
SARA SECTION 304.....NO  
SARA HAZARD CATAGORIES  
SECTIONS 311/312  
ACUTE HAZARD.....YES  
CHRONIC HAZARDS.....NO  
FIRE HAZARDS.....YES  
REACTIVITY HAZARDS.....NO  
SUDDEN RELEASE HAZARDS...NO  
SARA (313) CHEMICALS.....NO  
EPA TSCA INVENTORY.....APPEARS  
CERCLA SECTION 103.....NO  
CANADIAN WHMIS  
CLASSIFICATION.....B2, D2B  
OSHA PROCESS SAFETY.....NO  
CANADIAN DOMESTIC  
SUBSTANCES LIST (DSL).....APPEARS  
CALIFORNIA PROPOSITION 65...NO  
EINECS INVENTORY.....200-661-7

---

## SECTION 16: ADDITIONAL INFORMATION

DISCLAIMER.....THIS MATERIAL SAFETY DATA SHEET WAS PRODUCED  
FROM RELIABLE SOURCES. HOWEVER, IT IS PROVIDED  
WITHOUT REPRESENTATION OR WARRANTY EXPRESSED OR  
IMPLIED REGARDING ACCURACY OR CORRECTNESS.  
CONDITIONS AND METHODS OF USE ARE BEYOND THE  
CONTROL AND KNOWLEDGE OF K-CHEM, INC.  
K-CHEM, INC. DOES NOT ASSUME ANY  
RESPONSIBILITY AND EXPRESSLY DISCLAIMS

# ISOPROPYL ALCOHOL 99%

LIABILITY FOR INJURY, LOSS, DAMAGE OR EXPENSES  
ARISING FROM THE USE OF THIS PRODUCT.

ABBREVIATIONS USED.....ABBREVIATIONS USED THROUGHOUT THIS MSDS ARE:

ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL  
INDUSTRIAL HYGIENISTS

TWA = TIME WEIGHTED AVERAGE (EXPOSURE VALUES)

STEL = SHORT TERM EXPOSURE LIMITS

OSHA = OCCUPATIONAL SAFETY AND HEALTH  
ADMINISTRATION

PEL = PERMITTED EXPOSURE LIMITS

ppm = PARTS PER MILLION

mg = MILLIGRAMS

NIOSH = NATIONAL INSTITUTE FOR OCCUPATIONAL  
HEALTH AND SAFETY

MSHA = MINE SAFETY AND HEALTH ADMINISTRATION

lb = POUNDS

m3 = PER METRE CUBED

NTP = NATIONAL TOXICOLOGICAL PROGRAM

g = GRAMS

ml = MILLILITRE

RTECS = REGISTRY OF TOXICS EFFECTS OF CHEMICAL  
SUBSTANCES (NIOSH)

---

## SECTION 17: LABEL INFORMATION

FOR FURTHER INFORMATION.....SEE THE MATERIAL SAFETY DATA SHEET

SUPPLIER.....K-CHEM, INC

3908 3rd Avenue South

Birmingham, AL 35253

TEL: (205) 592-0844 FAX:(205)592-8106