



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKEN

Kardol Quality Products  
9933 Alliance Rd  
Cincinnati, OH 45242

SDS Information Number 1-800-252-7365  
Telephone 1-513-933-8206  
**Emergency Telephone # 1-800-424-9300**

**Product Name** ISOPROPANOL 99%  
**Product Code** 502062, 502071  
**Product Use or Description** Solvent.

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Appearance: Liquid, Colourless

**WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.**

### Potential Health Effects

**Exposure Routes:** Inhalation, Skin Absorption, Skin Contact, Eye Contact, Ingestion.

**Eye Contact:** Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin Contact:** Unlikely to cause skin irritation or injury. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

**Ingestion:** This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

**Inhalation:** Breathing of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

**Aggravated Medical Condition:** Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Liver, kidney, pancreas, Heart, Central nervous system. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

**Symptoms:** Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), muscle cramps, pain in the abdomen and lower back, Blurred vision, Shortness of breath, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness), coma.

**Target Organs:** Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects.

**Carcinogenicity:** This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard:** This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. The relevance of these findings to humans is uncertain.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No.	Concentration
Isopropyl alcohol	67-63-0	90 - 100%

### 4. FIRST AID MEASURES

**General Information:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**Eyes:** If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention. Remove contact lenses.

**Skin:** First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

**Ingestion:** Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended. Do NOT induce vomiting.

**Inhalation:** If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

#### Notes to Physician

**Hazards:** Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals.

**Treatment:** No information available.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, Carbon dioxide (CO<sub>2</sub>), Water spray.

**Hazardous Combustion Products:** carbon dioxide and carbon monoxide.

**Precaution For Fire-Fighting:** Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

**NFPA Flammable and Combustible Liquids Classification:** Flammable Liquid Class IB

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

**Environmental Precautions:** Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

**Methods for Clean Up:** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**Other Information:** Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

### 7. HANDLING AND STORAGE

**Handling:** Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

**Storage:** Store in a cool, dry, ventilated area, away from incompatible substances.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Isopropyl alcohol		67-56-1
ACGIH	8-hour, time-weighted average	200 ppm
ACGIH	Short-term exposure limit	
NIOSH	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek	400 ppm
NIOSH	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek	980 mg/m <sup>3</sup>
NIOSH	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday	500 ppm
NIOSH	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday	1225 mg/m <sup>3</sup>
OSHA	8-hour time weighted average	400 ppm
OSHA	8-hour time weighted average	980 mg/m <sup>3</sup>
OSHA	8-hour time weighted average	400 ppm
OSHA	8-hour time weighted average	980 mg/m <sup>3</sup>
OSHA	Short-term exposure limit	500 ppm
OSHA	Short-term exposure limit	1,225 mg/m <sup>3</sup>

**General Advice:** These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure Controls:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Eye Protection:** Not required under normal conditions of use. Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.

**Skin and Body Protection:** Wear resistant gloves (consult your safety equipment supplier).

**Respiratory Protection:** A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Colour	colourless
Odour	alcohol-like
Evaporation Rate	2.9
Boiling point/boiling range	180 °F / 82 °C
Melting Point Range	Freezing Point -128 °F / -89 °C
pH	N/A
Flash point	54 °F / 12 °C
Lower explosion limit/Upper explosion limit	2.0 %(V) / 12.0 %(V)
Vapour pressure	33.000 mmHg @ 68 °F / 20 °C
Relative Vapor Density	2.1
Water solubility	68 °F / 20 °C completely soluble
Auto-ignition temperature	867 °F / 464 °C

Density	0.785 g/cm <sup>3</sup> @ 68 °F / 20 °C
log Pow	0.05
Viscosity, kinematic	no data available

## 10. STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions to Avoid:** Avoid contact with: Heat, flames and sparks., excessive heat.

**Incompatible Products:** Avoid contact with: Aldehydes, halogens, Strong acids, Strong oxidizing agents, alkalis, Amines, Ethylene oxide, halogenated hydrocarbons, isocyanates, Do not use with aluminum equipment at temperatures above 120 degrees F.

**Hazardous Decomposition Products:** carbon dioxide and carbon monoxide.

**Hazardous Reactions:** Product will not undergo hazardous polymerization.

**Thermal decomposition:** No Data

## 11. TOXICOLOGICAL INFORMATION

### Acute oral toxicity

Acute oral toxicity - Product	No Data Available
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### Acute oral toxicity - Components

Isopropyl alcohol	LD50: > 5,500 mg/kg Species: rat Method: OECD Test Guideline 401 Symptoms: ataxia, decreased motor activity, bradypnea
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### Acute inhalation toxicity

Acute inhalation toxicity - Product	No Data Available
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### Acute inhalation toxicity - Components

Isopropyl alcohol	> 10,000 mg/l Exposure time: 6 h Species: rat Method: OECD Test Guideline 403 Symptoms: ataxia, labored breathing, decreased activity and muscle tone, decreased motor activity, depression
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### Acute dermal toxicity

Acute inhalation toxicity - Product	No Data Available
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### Acute dermal toxicity - Components

Isopropyl alcohol	LD50: Method: OECD Test Guideline 402
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### Acute toxicity (other routes of administration)

Acute toxicity (other routes of administration)	No Data Available
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## 12. ECOLOGICAL INFORMATION

### Biodegradability

Biodegradability - Product	No Data Available
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Biodegradability - Components

Isopropyl alcohol	Primary biodegradation 53 %
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### Bioaccumulation

Bioaccumulation - Product	No Data Available
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Bioaccumulation - Components

Isopropyl alcohol	no data available
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### Ecotoxicity effects

#### Toxicity to fish

Toxicity to fish - Product	No Data Available
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Toxicity to fish - Components

Isopropyl alcohol	No Data Available
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Toxicity to daphnia and other aquatic invertebrates:

Toxicity to daphnia and other aquatic invertebrates - Product	No Data Available
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Toxicity to daphnia and other aquatic invertebrates - Components

Isopropyl alcohol	No Data Available
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**Toxicity to algae**

Toxicity to algae - Product	No Data Available
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Toxicity to algae - Components	
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Isopropyl alcohol	No Data Available
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**Toxicity to Bacteria**

Isopropyl alcohol	No Data Available
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Toxicity to bacteria - Components	
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Isopropyl alcohol	No Data Available
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**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Kardol's Environmental Services Group at 800-252-7365.

**14. TRANSPORT INFORMATION****REGULATION**

ID Number /	Proper Shipping Name /	*Hazard Class /	Subsidiary Hazards /	Packing Group /	Packing Group/	Marine Pollutant	LTD QTY
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**U.S. DOT - ROAD**

U.N. 1230	Methanol	3				II	
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**U.S. DOT - RAIL**

U.N. 1230	Methanol	3				II	
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**U.S. DOT - INLAND WATERWAYS**

U.N. 1230	Methanol	3				II	
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**TRANSPORT CANADA - ROAD**

U.N. 1230	Methanol	3				II	
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**TRANSPORT CANADA - RAIL**

U.N. 1230	Methanol	3				II	
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**TRANSPORT CANADA - INLAND WATERWAYS**

U.N. 1230	Methanol	3				II	
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

U.N. 1230	Methanol	3				II	
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

U.N. 1230	Methanol	3				II	
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

U.N. 1230	Methanol	3				II	
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

U.N. 1230	Methanol	3				II	
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**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**15. REGULATORY INFORMATION****California Prop. 65**

This product does not contain any chemicals known to State defects or other reproductive harm.	
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**SARA Hazard Classification****SARA 311/312 Classification**

Fire Hazard	
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Acute Health Hazard

**New Jersey RTK Label Information**

Isopropyl alcohol 67-63-0

**Pennsylvania RTK Label Information**

Isopropyl alcohol 67-63-0

**Notification status**

United States TSCA Inventory	y (positive listing)
Canadian Domestic Substances List (DSL)	y (positive listing)
Australia Inventory of Chemical Substances (AICS)	y (positive listing)
New Zealand. Inventory of Chemical Substances	y (positive listing)
Japan. ENCS - Existing and New Chemical Substances Inventory	y (positive listing)
Japan. ISHL - Inventory of Chemical Substances (METI)	y (positive listing)
Korea. Korean Existing Chemicals Inventory (KECI)	y (positive listing)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	y (positive listing)
China. Inventory of Existing Chemical Substances in China (IECSC)	y (positive listing)

**Reportable quantity - Product**

US. EPA CERCLA Hazardous Substances (40 CFR 302) 5000/lbs

**Reportable quantity-Components**

Methanol 67-64-1 5000/lbs

	HMIS	NFPA
Health	2	1
Flammability	3	3
Physical hazards	0	0
Instability	0	0
Specific Hazard	0	0

**16. OTHER INFORMATION**

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Kardol's Environmental Health and Safety Department (1-800-252-7365).