

16008

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Material Name: Isopropyl Alcohol (91%)
Other Designations: Isopropanol, Rubbing Alcohol, IPA, 2-Propanol, Dimethyl Carbinol
Manufacturer's Name: Perrigo of Tennessee
Manufacturer's Address: One Swan Drive
 Smyrna, TN 37167 *K-Mart Corp.*
Telephone Number (for information): 1-615-459-8900
Telephone Number (for emergencies): 1-615-459-8900
Date Prepared: June 1995

Section 2 - Composition / Information on Ingredients

Chemical	Chemical Formula	%	CAS #
Isopropyl Alcohol	(CH ₃) ₂ CHOH	91%	67-63-0
Water	H ₂ O	9%	N/A

Section 3 - Hazards Identification

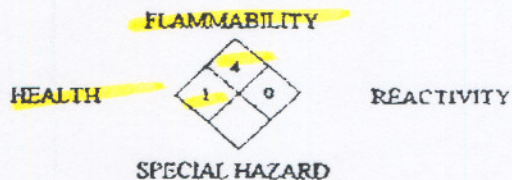
Summary/Overview of Hazards

Colorless, volatile liquid with the odor of rubbing alcohol. Isopropyl alcohol is a dangerous fire risk. Prolonged exposure to elevated concentrations of vapors may result in irritation of the eyes, nose and throat and central nervous system (CNS) depression. Prolonged dermal exposure can result in dry, cracking skin.

Potential Routes of Exposure: Ingestion, inhalation, dermal contact, eye contact.
Target Organs: Eyes, skin, respiratory system
Symptoms of Overexposure (by route):
Inhalation: Mild irritation of eyes, nose and throat
Ingestion: Drowsiness, dizziness, headache
Dermal Contact: Dry cracking skin
Acute Effects: Irritation of skin and/or upper respiratory tract as noted above. Acute CNS depression may be manifested as giddiness, headache, dizziness and/or nausea
Chronic Effects: Chronic exposure to isopropyl alcohol can result in skin irritation and more serious contact dermatitis
Medical Conditions Aggravated By Long-Term Exposure: Pre-existing disorders of the skin, eyes and respiratory tract may be exacerbated by exposure to isopropyl alcohol.

Degree of Hazard (NFPA System)

- 4 - Severe
- 3 - High
- 2 - Moderate
- 1 - Slight
- 0 - Insignificant



Material Safety Data Sheet (continued)

Section 4 - First Aid Measures

Eye Exposure: Immediately flush eyes with copious amounts of water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.

Skin Exposure: Flush affected area with water. If irritation occurs, seek medical attention.

Inhalation: Do not induce vomiting if victim is unconscious or drowsy. Otherwise, if within 15 minutes of ingestion, give no more than 2 glasses of water and 30 cubic centimeters (cc) (2 tablespoons) syrup of Ipecac to induce vomiting. Seek medical attention and/or call the Poison Control Center.

Ingestion: Remove victim to fresh air and provide oxygen if breathing is difficult. Seek medical attention.

Section 5 - Fire Fighting Measures

Extinguishing Media: Use water fog, alcohol foam, dry chemical or CO₂.

Unusual Fire or Explosion Hazards: Containers exposed to intense heat from fires should be cooled with large amounts of water to prevent buildup of internal pressure due to vapor generation which could result in container rupture. Container areas exposed to direct flames should be cooled with large quantities of water as needed to prevent weakening or container structure. (See also Section 9).

Recommended Fire-Fighting Procedures: Clear area of unprotected personnel. Do not enter confined fire space without full turnout gear (helmet with face shield, turnout coat, gloves, rubber boots, and MOSH-approved SCBA operating in positive-pressure mode). Cool containers exposed to fire with water.

Section 6 - Accidental Release Measures

Recommended Spill / Leak Response Procedures: Eliminate all ignition sources. Equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Utilize appropriate level of personal protective equipment (see also Section 8). Contain source if it is safe to do so. Dilute or otherwise contain spilled product. Uncontrolled releases to air, land, or water may be reportable to the National Response Center (1-800-424-8802). Circumstances surrounding the release and clean-up determine reportability.

Small Spills: Take up with absorbent material and place in non-leaking container, seal tightly. Dispose of absorbent (see section 13).

Section 7 - Handling and Storage

Storage Requirements: Store in tightly closed containers in a cool, dry area away from heat and other possible ignition sources, including incompatible materials. (See also Section 10).

Recommended Handling Procedures: Use non-sparking tools to open containers. Minimize appropriate class(es) of fire extinguishers nearby in case of fire.

Material Safety Data Sheet (continued)

Section 8 - Exposure Controls / Personal Protection

OSHA PEL 400 ppm
OSHA STEL 500 ppm
OSHA Ceiling 12,000 ppm
IDLH

Use explosion-proof ventilation equipment as necessary to maintain airborne concentrations below the PEL. Ground all containers to prevent static sparks during field transfer.

Recommended Administrative Controls:
 Train employees on the hazards of isopropyl alcohol.

Recommended Personal Protective Equipment (PPE):
 Rubber gloves as necessary to minimize dermal contact. Wear chemical goggles if there is likelihood of contact with eyes. Utilize NIOSH-approved respiratory protective equipment as necessary in atmospheres containing concentrations of isopropyl alcohol above the PEL. Utilize either an air-purifying respirator fitted with organic vapor cartridges or an atmosphere-supplying respirator, as warranted by the airborne concentration.

Recommended Hygiene Practices:
 Clean PPE and work clothing contaminated with isopropyl alcohol prior to reuse. After working with this chemical, be sure to wash before eating, smoking, drinking, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Appearance: Colorless liquid
Odor: Mild, rubbing alcohol
Odor Threshold: 43 ppm
Vapor Pressure: 33 mm (@ 68°F) (approx)
Boiling Point: 180°F
Freezing Point: 72° - 50°C
Water Solubility: Miscible
Molecular Weight: 47.5 (approx)
Specific Gravity: 0.79
Flash Point: 54°F (TAG open cup)
Upper Explosive Limit (UEL): 12.0%
Lower Explosive Limit (LEL): 2.0%
Autoxidation Temperature: No data

Section 10 - Stability and Reactivity

Stability: Stable
Polymerization: Will not occur
Chemical Incompatibilities: Strong oxidizers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates
Conditions to Avoid: Minimum equipment at temperatures > 120°F
Hazardous Products of Decomposition: Carbon monoxide and unidentified organic compounds may be formed during combustion

Section 11 - Toxicological Information

LD₅₀ (Rat 99% PA): 5,640 mg/kg (acute oral - rat); 13,000 mg/kg (acute dermal - rabbit)
LC₅₀ (Rat 99% PA): 16,000 ppm-ft. (inhalation - rat)
LD₅₀ (Rat 99% PA): 5,000 mg/kg (oral - rabbit)
Cardiovascularity: Not indicated
Reproductive Effects: Not indicated

Not classified as a carcinogen by OSHA, IARC, or NTP.

Material Safety Data Sheet (continued)

Section 12 - Ecological Information

Environmental Mobility: Highly mobile

Environmental Persistence: Should be removed readily from soils and water by volatilization and biodegradation

Endpoint Acute Criteria: Not found

Endpoint Chronic Criteria: Not found

Bioaccumulation Factor (BCF): Not found

Section 13 - Disposal Considerations

EPA Waste Codes: If this material becomes a waste while in concentrated form, it will likely be classified as an ignitable waste, and carry the Waste Code D001.

Recommended Disposal Methods/Technologies: Consider fuels blending as an alternative to incineration. Consult applicable state and federal regulations.

Section 14 - Transport Information

DOT Shipping Name: Isopropanol

DOT Hazard Class: 3

ID #: UN 1219

DOT Label: Flammable Liquid

DOT Packing Group: II

Section 15 - Regulatory Information

EPA Designations: D001

Hazardous Waste (RCRA): No

Hazardous Substance (CERCLA): No

Reportable Quantity (RQ): 100 lbs (for ignitable hazardous waste)

Extremely Hazardous Substance (EHS): No

Threshold Planning Quantity (TPQ): 10,000 lbs (default)

Toxic Chemical (SARA-313): Yes (strong acid manufacturing only)

Hazardous Air Pollutants (CAA): No

Section 16 - Other Information

Prepared By: Perigo of Tennessee

Source of Information: 29 CFR 1910.1000; NIOSH Pocket Guide to Chemical Hazards (1990); Hawley's Condensed Chemical Dictionary - 11th Edition; Sax's Dangerous Properties of Industrial Materials - 6th Edition; EPA Title III List of Lists (1994); EPA Quality Criteria for Water (1986); EPA Superfund Public Health Evaluation Manual (1986); 49 CFR 172.304 Respirator Selection Guide (1992); 40 CFR 261; NFPA Guide to Hazardous Material - 10th Edition; NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards (1978)

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