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
Telephone Number (for information):	1-615-459-8900
Telephone Number (for emergencies):	1-615-459-8900
Date Prepared:	June 1995

K-Mart Corp.

Section 2 - Composition / Information on Ingredients

Chemical	Chemical Formula	%	CAS #
Isopropyl Alcohol	$(CH_3)_2CHOH$	91%	67-63-0
Water	H_2O	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.

Ingestion: 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 (oz) (2 tablespoons) syrup of Ipecac to induce vomiting. Seek medical attention and/or call the Poison Control Center.

Inhalation: 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 CO_2.

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 flame should be cooled with large quantities of water as needed to prevent weakening of 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 NIOSH-approved SCBA operating in positive-pressure mode). Cool containers exposed to fire with water.

Section 6 - Accidental Release Measures

Recommended Spill / Leak Response Procedures:

Large Spills: 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. Dike or otherwise confine 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 Precautions: Use non-sparking tools to open containers. Maintain appropriate class(es) of fire extinguishers nearby in case of fire.

Material Safety Data Sheet (continued)

Section 8 - Exposure Controls / Personal Protection

Applicable Exposure Limits:

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

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

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

Recommended Personal Protective Equipment (PPE): Wear protective clothing chemical-resistant gloves (e.g., nitrile, neoprene, natural rubber) 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 isopropanol 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	**Freezing Point:**	32° - 50°C	**Autoignition Temperature:**	*No data*
Odor:	Mild, rubbing alcohol	**Water Solubility:**	Miscible	**Lower Explosive Limit (LEL):**	2.0%
Odor Threshold:	43 ppm	**Molecular Weight:**	47.5 (approx.)	**Upper Explosive Limit (UEL):**	12.0%
Vapor Pressure:	33 mm (@ 68°F) (approx.)	**Specific Gravity:**	0.79	**Vapor Density (air = 1):**	2.1
Boiling Point:	180°F	**Flash Point:**	54°F (TAG open cup)		

Section 10 - Stability and Reactivity

Stability: Stable

Polymerization: Will not occur

Chemical Incompatibilities: Strong oxidizers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates

Conditions to Avoid: Heat, sparks, open flame, contact with incompatible materials. Do not store in aluminum equipment at temperatures > 120°F.

Hazardous Products of Decomposition: Carbon monoxide and unidentified organic compounds may be formed during combustion.

Section 11 - Toxicological Information

LD_{50} (for 99% IPA): 5,840 mg/kg (acute oral - rat); 13,000 mg/kg (acute dermal - rabbit)

LC_{50} (for 99% IPA): 16,000 ppm/8-hr. (inhalation - rat)

LD_{L_0} (for 99% IPA): 5,000 mg/kg (oral - rabbit)

Carcinogenicity: Not identified as a carcinogen by OSHA, IARC, or NTP.

Mutagenicity: Not indicated

Reproductive Effects: Not indicated

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
Freshwater Acute Criteria:	Not found
Freshwater Chronics Criteria:	Not found
Bioconcentration 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 Packing Group:**	II
DOT Hazard Class:	3	**DOT Label:**	Flammable Liquid
I.D. #:	UN 1219		

Section 15 - Regulatory Information

EPA Designations:

Hazardous Waste (RCRA):	D001
Hazardous Substance (CERCLA):	No
Reportable Quantity (RQ):	100 lbs. (for ignitable hazardous waste)
Extremely Hazardous Substance (SARA-302):	No
Threshold Planning Quantity (TPQ):	10,000 lbs. (default)
Toxic Chemical (SARA-313):	Yes (strong acid manufacturing only)
Hazardous Air Pollutant (CAA):	No

Section 16 - Other Information

Prepared By:	Perrigo of Tennessee
Sources 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; 3M Respirator Selection Guide (1992); 40 CFR 261; NFPA Guide to Hazardous Material - 10th Edition; NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards (1978).

While reasonable care has been taken to ensure the accuracy and completeness of the information regarding the material described herein, it is the purchaser's responsibility to ensure the suitability of such information as it applies to the purchaser's intended use of the material.