

REPORT NUMBER: 703
MSDS NO: MZISALC
EFFECTIVE DATE: 02/24/93

VAN WATERS & ROGERS INC.
MATERIAL SAFETY DATA SHEET

619958/ISOALC5/200006/285820/
285820POLY/603699
ISOPROPYL ALCOHOL (HM)
107 51500010/20/25/30/31/35

PRODUCT: ISOPROPYL ALCOHOL

ORDER NO: 130907
PROD NO : 619958

T K GRAY INC.
2812 SO. ANTHONY LANE

RISK MANAGEMENT & SAFETY

MAR 24 1997

MINNEAPOLIS ,MN 55418

VAN WATERS & ROGERS INC. , SUBSIDIARY OF UNIVAR (206)889-3400
6100 CARILLON POINT , KIRKLAND , WA 98033

----- EMERGENCY ASSISTANCE -----

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

----- FOR PRODUCT AND SALES INFORMATION -----

CONTACT YOUR LOCAL VAN WATERS & ROGERS BRANCH OFFICE AT
VW&R ST PAUL 612-774-9400 ST PAUL , MN

PRODUCT NAME:
ISOPROPYL ALCOHOL

MSDS #: MZISALC

PRODUCT IDENTIFICATION:

Synonyms: 2-propanol; sec-propyl alcohol; isopropanol

Formula CAS No.: 67-63-0

Molecular Weight: 60.10

Hazardous Ingredients: Isopropyl alcohol Chemical Formula: (CH₃)₂CHOH

PRECAUTIONARY MEASURES

WARNING! FLAMMABLE LIQUID. HARMFUL IF SWALLOWED OR INHALED. AFFECTS CENTRAL
NERVOUS SYSTEM. CAUSES IRRITATION.

Keep away from heat, sparks and flame.
Keep container closed.
Use with adequate ventilation.
Avoid breathing vapor.
Wash thoroughly after handling.
Avoid contact with eyes, skin and clothing.

EMERGENCY FIRST AID

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If swallowed, give water to drink. Induce vomiting if medical help is not immediately available. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: Flammable Liquid

Physical Data

Appearance: Clear, colorless liquid.

Odor: Rubbing alcohol.

Solubility: Infinite in water.

Boiling Point: 82 C (180 F).

Melting Point: -89 C (-128 F).

Vapor Density (Air=1): 2.1

Vapor Pressure (mm Hg): 33 @ 20 C (68 F)

Specific gravity: 0.79

Evaporation Rate: (n-BUAC = 1) 2.83

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0

Fire and Explosion

SECTION 2

Information

Fire: Flammable Liquid Flashpoint: 12 C (53 F).
(closed cup). Autoignition temperature: 399 C
(750 F). Flammable limits in air, % by volume:
lel: 2.0; uel: 12.0.

Explosion: Above flash point, vapor-air mixtures are
explosive within flammable limits noted above.
Contact with strong oxidizers may cause fire or
explosion.

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Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Vapors can flow along surfaces to distant ignition source and flash back.

Reactivity Data

SECTION 3

Stability:

Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

Hazardous Decomposition Products:

Toxic gases and vapors such as carbon monoxide may be released in a fire involving isopropyl alcohol.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Heat, flame, strong oxidizers, acetadehyde, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, oleum and perchloric acid.

Leak/Spill Disposal Information

SECTION 4

Remove all sources of ignition. Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from vapors. Small spills may be absorbed on paper towels and evaporated in a fume hood. Allow enough time for fumes to clear hood, then ignite paper in a suitable location away from combustible materials. Contain and recover liquid for reclamation when possible. Larger spills and lot sizes can be collected as hazardous waste and atomized in a suitable RCRA approved combustion chamber, or absorbed with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility.

Ensure compliance with local, state and federal regulations.

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Health Hazard Information

SECTION 5

A. Exposure/Health Effects

Inhalation: May cause irritation of the nose and throat. Exposure to high concentrations has a narcotic effect, producing symptoms of drowsiness, headache, staggering, unconsciousness and possibly death.

Ingestion: May cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. The single lethal dose for a human adult = about 250 mls (SAX Sixth Edition).

Skin Contact: Has a defatting action of the skin that can cause irritation. May cause irritation with a stinging effect and burning sensation.

Eye Contact: Vapors may irritate the eyes. Splashes may cause severe irritation, possible corneal burns and eye damage.

Chronic Exposure: Prolonged contact with skin may cause mild irritation, drying, cracking, or contact dermatitis may develop.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Give water to drink. Induce vomiting if medical help not is immediately available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Exposure: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes.

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Get medical attention if irritation develops or persists.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1986)

Oral rat LD50: 5840 mg/kg. Skin rabbit LD50: 13 gm/kg. Inhalation rat LC50: 16000 ppm/8H. Mutation references cited Aquatic Toxicity rating TLM96: 1000-10 ppm.

Occupational Control Measures SECTION 6

Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): 400 ppm (TWA), 500 ppm (STEL) -ACGIH Threshold Limit Value (TLV): 400 ppm (TWA), 500 ppm (STEL)

ntilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved) If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn, in general, up to the maximum use concentration specified by the respirator supplier. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

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Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from oxidizing materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment.

Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be
Detached from the MSDS
Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS
must include a copy of this addendum

Hazard Categories for SARA
Section 311/312 Reporting

	Acute -----	Chronic -----	Fire -----	Pressure -----	Reactive -----	
	X	X	X			
			SARA Sec. 313 Chemicals		CERCLA Sec.103	RCRA Sec.
Product or Components of Product:	SARA EHS Sec. 302 RQ	TPQ	Name List	Chemical Category	RQ lbs	261.33
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ISOPROPYL ALCOHOL (67-63-0)	No	No	Yes	No	No	No

SARA Section 302 EHS RQ:
Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:
Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:
Toxic Substances subject to annual release reporting requirements
listed at 40 CFR 372.65.

CERCLA Sec. 103:

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Comprehensive Environmental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:
Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

Addendum to MSDS - California Proposition 65

The State of California requires that we provide to customers and employees in California warnings about reproductive and carcinogenic hazards associated with substances sold in California that are listed under Proposition 65. Information on this Proposition 65 MSDS addendum addresses that requirement and should be used in conjunction with this Material Safety Data Sheet.

Product(s): ISOPROPYL ALCOHOL

WARNING: This product may contain a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.
