MATERIAL SAFETY DATA SHEET

Finished Product

Date Issued: 01/03/2003
MSDS No: 1610-DSP
Date Revised: 03/02/2012
Revision No: 17

Isopropanol

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Isopropanol
GENERAL USE: General Purpose Cleaning
PRODUCT DESCRIPTION: Isopropyl Alcohol
PRODUCT CODE: 1610/CAN/EUR-DSP
ACTIVE INGREDIENT(S): 2-Propanol

MANUFACTURER

Techspray, L.P.
1001 N.W. 1st Street
P.O. Box 949
Amarillo, TX 79107
Emergency Contact: Chemtrec
Emergency Phone: 1-800-858-4043
Service Number: 1-800-858-4043

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC CCN#21858 (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666
Emergency Phone :(800) 858 - 4043

2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION

"Xi" - Irritant
R36/38 - Irritating to eyes and skin.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, Colorless, Volatile Liquid

IMMEDIATE CONCERNS: Flammable liquid and vapor.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

SKIN ABSORPTION: Skin absorption can occur.

INGESTION: This product is toxic by ingestion. Ingestion may cause irritation of the digestive tract. Nausea and vomiting will most likely occur.

INHALATION: High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and possibly death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
2-Propanol	99.6 - 100	67-63-0	200-661-7

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

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SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: Do not induce vomiting. Give milk or water. Get immediate medical attention immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 11.7°C (53°F) TAG CC

FLAMMABLE LIMITS: 2.0 to 12.0

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes and oxides of carbon.

EXPLOSION HAZARDS: Vapors, when present in the flammable range (listed above), especially in a confined or poorly ventilated space, can be ignited with a flame or high intesity source of heat.

FIRE FIGHTING PROCEDURES: Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth, gravel, etc. as necessary and place in closed containers for disposal.

SPECIAL PROTECTIVE EQUIPMENT: Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area. See Section 8 for details.

COMMENTS: Remove all sources of ignition. Use spark-proof tools.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use spark proof tools and explosion proof equipment.

HANDLING: Ground and bond containers when transferring material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m³	ppm	mg/m³	ppm	mg/m³
2-Propanol	TWA	400 ppm	980 mg/m3	400 ppm	983 mg/m3	NL [1]	NL [1]
	STEL	500 ppm	1225 mg/m3	500 ppm	1230 mg/m3	NL	NL
OSHA TABLE COMMENTS: **1**. NL = Not Listed							

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Viton, Solvex, Butyl, Buna, Neoprene.

RESPIRATORY: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Specific Gravity
2-Propanol	11.7	82.4	0.785

PHYSICAL STATE: Liquid

ODOR: Alcohol odor

APPEARANCE: Clear, Colorless liquid

pH: Neutral

PERCENT VOLATILE: 100

VAPOR PRESSURE: 33 mmHg at 20°C

VAPOR DENSITY: 2.07 (Air=1)

BOILING POINT: to 82°C (180°F)

FREEZING POINT: to -88°C

FLASHPOINT AND METHOD: 11.7°C (53°F) TAG CC

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SOLUBILITY IN WATER: Miscible

EVAPORATION RATE: to 1.7 (n-Butyl Acetate=1)

SPECIFIC GRAVITY: to 0.7850 (water=1)

MOLECULAR WEIGHT: 60.09 **Formula:** C3H8O

(VOC): 787.000

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable under normal conditions.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat, flames, ignition sources, and incompatables.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon (CO and CO2) may form when heated to decomposition.

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD_{50}: 12800 mg/kg (rabbit)

ORAL LD_{50}: 5045 mg/kg (rat)

INHALATION LC_{50}: 16000 ppm, 8-hour

EYE EFFECTS: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate

SKIN EFFECTS: Draize test, rabbit, skin: 500 mg Mild.

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
2-Propanol	NOT LISTED	NOT LISTED	NOT LISTED

IARC: NOT listed

NTP: NOT listed

OSHA: NOT listed

TERATOGENIC EFFECTS: Test results indicate this compound/mixture is not teratogenic.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Isopropyl alcohol has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge.

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13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Federal, State, and Local laws governing disposal of materials can differ. Ensure compliance with proper authorities before disposal.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D

AIR (ICAO/IATA)

SHIPPING NAME: CONSUMER COMMODITY ID8000

UN/NA NUMBER: ID8000

VESSEL (IMO/IMDG)

SHIPPING NAME: Solids Containing Flammable Liquid, N.O.S. (Isopropanol)

TECHNICAL NAME: ISOPROPANOL

UN/NA NUMBER: UN3175

PRIMARY HAZARD CLASS/DIVISION: 4.1

PACKING GROUP: II

NOTE: Vol. 2, page 159

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: CONSUMER COMMODITY ID8000

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: Yes **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: 2-propanol (CAS #67-63-0)

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
2-Propanol	99.6 - 100	67-63-0

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
2-Propanol	67-63-0

CANADA

WHMIS CLASS: Class B2 - Flammable Liquids. Class D2B - Toxic Materials.

CANADA INGREDIENT DISCLOSURE LIST: CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

DOMESTIC SUBSTANCE LIST (INVENTORY): All components of this product are listed on the Canadian DSL.

EUROPEAN COMMUNITY

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EEC LABEL SYMBOL AND CLASSIFICATION

"Xi" - Irritant
R36/38 - Irritating to eyes and skin.

16. OTHER INFORMATION

APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

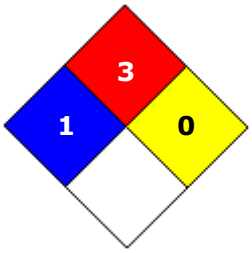
PREPARED BY: Steve Cook

REVISION SUMMARY: This MSDS replaces the 01/16/2012 MSDS.

HMIS RATING

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	1
PERSONAL PROTECTION	

NFPA CODES



DATA SOURCES: Code of Federal Regulations (CFR) The Sigma-Aldrich Library of Regulatory and Safety Data OSHA Hazard Communication Standard (29CFR1910.1200) Various Federal, State and Local Regulations

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