

# MATERIAL SAFETY DATA SHEET

**Finished Product**

**Date Issued:** 01/03/2003  
**MSDS No:** 1610-50PK  
**Date Revised:** 03/02/2012  
**Revision No:** 9

## Isopropanol

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Isopropanol  
**GENERAL USE:** General Purpose Cleaning  
**PRODUCT DESCRIPTION:** Isopropanol  
**PRODUCT CODE:** 1610/CAN/EUR-50PK  
**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

**COMMENTS:** This MSDS was reviewed on 30 Oct. 2006.

### 2. HAZARDS IDENTIFICATION

**HAZARD DESIGNATION**

"F" - Highly flammable  
 R11 - Highly flammable.  
 "Xi" - Irritant  
 R36/38 - Irritating to eyes and skin.

**EMERGENCY OVERVIEW**

**PHYSICAL APPEARANCE:** Saturated wipe.

**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

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### 4. FIRST AID MEASURES

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

**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 intensity 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		Supplier OEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
2-Propanol	TWA	400 ppm	980 mg/m <sup>3</sup>	400 ppm	983 mg/m <sup>3</sup>	NL [1]	NL [1]
	STEL	500 ppm	1225 mg/m <sup>3</sup>	500 ppm	1230 mg/m <sup>3</sup>	NL	NL
<b>OSHA TABLE COMMENTS:</b> 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:** Saturated wipe

**ODOR:** Alcohol odor

**APPEARANCE:** Slightly opaque liquid on wipes.

**pH:** Neutral

**PERCENT VOLATILE:** 100

**VAPOR PRESSURE:** 33 mmHg at 20°C

**VAPOR DENSITY:** 2.07 (Air=1)

**BOILING POINT:** 82°C (180°F)

**FREEZING POINT:** -88°C

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

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**SOLUBILITY IN WATER:** Miscible  
**EVAPORATION RATE:** 1.7 (n-Butyl Acetate=1)  
**SPECIFIC GRAVITY:** 0.785 (water=1)  
**MOLECULAR WEIGHT:** 60.09 **Formula:** C<sub>3</sub>H<sub>8</sub>O  
**(VOC):** 787.000 g/L (non-exempt VOC)

### 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 incompatibles.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of Carbon (CO and CO<sub>2</sub>) may form when heated to decomposition.  
**INCOMPATIBLE MATERIALS:** Strong acids and alkalis, reactive metals and strong oxidizing agents.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE

**DERMAL LD<sub>50</sub>:** 12800 mg/kg (rabbit)

**ORAL LD<sub>50</sub>:** 5045 mg/kg (rat)

**INHALATION LC<sub>50</sub>:** 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:** Not regulated

#### ROAD AND RAIL (ADR/RID)

**PROPER SHIPPING NAME:** Not regulated

**NOTE:** See Rule 216.

#### AIR (ICAO/IATA)

**SHIPPING NAME:** Not regulated

#### VESSEL (IMO/IMDG)

**SHIPPING NAME:** Not regulated

**SPECIAL PROVISIONS:** See Rule 216.

#### CANADA TRANSPORT OF DANGEROUS GOODS

**SHIPPING NAME:** Nonhazardous

### 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



"F" - Highly flammable  
R11 - Highly flammable.



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

### 16. OTHER INFORMATION

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

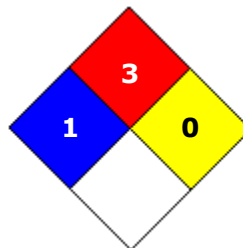
**PREPARED BY:** Steve Cook

**REVISION SUMMARY:** This MSDS replaces the 10/20/2009 MSDS.

#### HMIS RATING

<b>HEALTH</b>	<input type="text"/>	<b>2</b>
<b>FLAMMABILITY</b>	<input type="text"/>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<input type="text"/>	<b>1</b>
<b>PERSONAL PROTECTION</b>	<input type="text"/>	

#### 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

**GENERAL STATEMENTS:** OSHA - Occupational Safety and Health Administration

CFR - Code of Federal Regulations

PEL - Permissible Exposure Limit

TLV - Threshold Limit Value

ACGIH - American Congress of Government Industrial Hygienists

OEL - Occupational Exposure Limit (supplier)

TWA - Time Weighted Average

STEL - Short Term Exposure Limit

NIOSH/MSHA - National Institute of Occupational Safety and Health

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

ADR/RID - Agreement on Dangerous Goods by Road/Regulations Concerning the International Transport of Goods by Rail

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods

WHMIS - Workplace Hazardous Materials Information System

EEC - European Economic Council

HMIS - Hazardous Materials Information System

NFPA - National Fire Protection Association

CAS - Chemical Abstract Service

EINECS - European Inventory of Existing Chemicals

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TAG CC - Tagliabue Closed Cup

LD50 - Lethal dose , 50% population

LC50 - Lethal concentration, 50% population

SARA - Superfund Amendments and Reauthorization Act

EPCRA - Emergency Planning and Community right-to-Know Act

CHEMTREC - Chemical Transportation Emergency Center

CANUTEC - Canadian Transportation Emergency Center

Canadian DSL - Canadian Domestic Substances List

**MANUFACTURER DISCLAIMER:** To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, L.P., or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.