



MATERIAL SAFETY DATA SHEET



SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Isopropyl Alcohol

June 4, 2013

Vishay Measurements Group, Inc.
Post Office Box 27777
Raleigh, NC 27611

919-365-3800

CHEMTREC 1-800-424-9300 (U.S.)
703-527-3887 (Outside U.S.)

NOTE: CHEMTREC numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	CHEMICAL IDENTITY	%
67-63-0	Isopropyl Alcohol	99-100

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: Yes **Skin:** Yes **Ingestion:** Accidental

Health Hazards (Acute and Chronic): None identified.

Carcinogenicity: NTP: Not listed
 IARC Monographs: Not listed
 OSHA Regulated: Not listed

Signs and Symptoms of Exposure:

INHALATION: May cause irritation of the nose and throat, headache, nausea, dizziness, drowsiness, irritation of upper respiratory tract, narcosis, central nervous system depression, difficult breathing, pulmonary edema and unconsciousness.

Isopropyl Alcohol MSDS (Continued)

EYE CONTACT: May cause irritation. May cause corneal damage.

SKIN CONTACT: May cause irritation. Prolonged contact may cause dermatitis. May be rapidly absorbed into skin.

INGESTION: May cause headache, nausea, vomiting, dizziness, gastrointestinal irritation, narcosis, central nervous system depression and unconsciousness.

Conditions Generally Aggravated by Exposure: Skin disorders, eye disorders, respiratory system disease.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Prompt action is essential.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes while holding eyelids open.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

INGESTION: Call a physician. If swallowed, if conscious, give large amounts of water. Induce vomiting.

MEDICAL SURVEILLANCE: Provide preplacement and periodic examinations with emphasis on skin, sinuses, and respiratory system.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 53°F (11°C) (Closed Cup)

Autoignition Temperature: 750° F (398°C)

Flammable limits: LEL: 2.0 UEL: 12.0

Extinguishing Media: Use alcohol foam, dry chemical or carbon dioxide. Water may be ineffective.

Special Firefighting Procedures: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire exposed containers cool.

Unusual Fire and Explosion Hazards: Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Wear suitable protective clothing. Shut off ignition sources; no flares, smoking, or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water. Do not allow spill to enter drains or sewer system.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is required if airborne concentration exceeds TLV. At concentrations up to 1000 ppm, a chemical cartridge respirator with organic vapor cartridge is recommended. Above this level, a self-contained breathing apparatus is recommended.

Ventilation:

Local Exhaust: Keep below TLV

Mechanical: Keep below TLV

Special: NA

Other: NA

Protective Gloves: Neoprene gloves are recommended.

Eye Protection: Safety goggles are recommended.

Other Protective Clothing or Equipment: Protective apron, if needed to prevent exposure, is recommended.

Work / Hygienic Practices: Use good industrial hygiene practices. Wash hands with soap and water after using and before eating, drinking, or smoking. Thoroughly wash contaminated clothing before reuse.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area. Do not store near oxidizing materials.

Other Precautions: Bond and ground containers when transferring liquid.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	179°F (82°C) @ 760 mm Hg
Vapor Pressure (mmHg):	33 at 68°F (20°C)
Vapor Density (Air = 1):	2.1
Specific Gravity (H₂O = 1):	0.79
Melting Point:	-128°F (-89°C) @ 760 mm Hg
Evaporation Rate (BuAc = 1):	2.5
Volatile Organic Compounds:	100%
Solubility in Water:	Complete
pH:	NA
Odor Threshold (ppm):	28.2

Appearance and Odor: Clear, colorless liquid. Alcohol odor.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable.

Conditions to Avoid: Heat, flame, other sources of ignition.

Incompatibility (Materials to Avoid): Strong oxidizing agents, aluminum, strong acids, nitric acid, sulfuric acid, halogens, active halogen compounds, amines, ammonia, and aldehydes.

Hazardous Decomposition or By-products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Isopropyl Alcohol

OSHA PEL:	400 ppm
ACGIH TLV:	400 ppm
OTHER:	500 ppm STEL
	LD ₅₀ ORAL (RAT) 5840 mg/kg
	LD ₅₀ INTRAPERITONEAL (MOUSE) 933 mg/kg
	LD ₅₀ ORAL (DOG) 6150 mg/kg
	LD ₅₀ SKIN (RABBIT) 13 g/kg

SECTION 12: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with all applicable federal, state, and local environmental regulations.

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Isopropanol (Isopropyl Alcohol)	3	II	1219

SECTION 14: REGULATORY INFORMATION**SECTION 313 SUPPLIER NOTIFICATION:**

This product contains a toxic chemical or chemicals (as listed below) subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
67-63-0	Isopropyl Alcohol	99-100

TSCA NOTIFICATION:

All components of this product are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

SECTION 15: OTHER INFORMATION

To the best of our knowledge, the information provided above meets the requirements of the United States Occupational Safety and Health Act and regulations established under 29 CFR 1910.1200 (g)(2)(c)(1)-(4) for a mixture of hazardous chemicals which has not been tested as a whole. The data provided on this Material Safety Data Sheet is from manufacturers of the original components. Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.