



**Signs and Symptoms of Exposure:**

**INHALATION:** May cause irritation of nose and throat, headache, nausea, vomiting, dizziness, drowsiness, irritation of upper respiratory tract, unconsciousness.

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

**SKIN CONTACT:** May cause irritation. Prolonged contact may cause dermatitis.

**INGESTION:** May cause headache, nausea, vomiting, dizziness, gastrointestinal irritation.

**Conditions Generally Aggravated by Exposure:** None known.

<b>SECTION 4: EMERGENCY AND FIRST AID PROCEDURES</b>
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**INHALATION:** If inhaled, remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration. Contact a physician.

**EYE CONTACT:** In case of eye contact, immediately flush with plenty of water for at least fifteen minutes. Contact a physician.

**SKIN CONTACT:** Wash affected area immediately with large amounts of soap and water. Remove and wash contaminated clothing before reuse. Contact a physician if irritation occurs.

**INGESTION:** CALL A PHYSICIAN. If swallowed, if conscious, give large amounts of water. Induce vomiting.

<b>SECTION 5: FIRE AND EXPLOSION HAZARD DATA</b>
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**Flash Point (Method Used):** 53°F (11°C) Closed Cup

**Flammable limits:** LEL: 2.0 UEL: 12.0

**Extinguishing Media:** Alcohol foam, dry chemical, carbon dioxide.

**Special Firefighting Procedures:** Firefighters should wear proper protective clothing and self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Closed containers may explode if exposed to high heat.

**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.

**SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION**

**Respiratory Protection:** Respiratory protection 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:** Use general or local exhaust ventilation to meet TLV requirements.

**Local Exhaust:** Keep below TLV

**Mechanical:** Keep below TLV

**Special:** N/A

**Other:** N/A

**Protective Gloves:** Butyl rubber gloves are recommended.

**Eye Protection:** Safety goggles are recommended.

**Other Protective Clothing or Equipment:** Protective apron is recommended.

**Work / Hygienic Practices:** Wash thoroughly after using.

**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.

**Other Precautions:** Bond and ground containers when transferring liquid.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Boiling Point:</b>	181°F (83°C)
<b>Vapor Pressure (mmHg):</b>	33 @ 68°F (20°C)
<b>Vapor Density (Air = 1):</b>	2.1
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	0.78
<b>Melting Point:</b>	-128°F (-89°C)
<b>Evaporation Rate (BuAc = 1):</b>	2.83
<b>Volatile Organic Compounds:</b>	98%
<b>Solubility in Water:</b>	98%

**Appearance and Odor:** Blue 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, strong acids, nitric acid, sulfuric acid, halogens, active halogen compounds.

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

**Hazardous Polymerization:** Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

2-Propanol

OSHA PEL:	400 ppm
ACGIH TLV:	400 ppm
OTHER:	LD <sub>50</sub> ORAL (RAT) 5840 mg/kg
	LD <sub>50</sub> INTRAPERITONEAL (MOUSE) 933 mg/kg
	LD <sub>50</sub> ORAL (DOG) 6150 mg/kg
	LD <sub>50</sub> SKIN (RABBIT) 12.8 g/kg

n-Phenyldiethanolamine

OSHA PEL:	Not established
ACGIH TLV:	Not established
OTHER:	Not available

<b>SECTION 12: DISPOSAL CONSIDERATIONS</b>
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**Waste Disposal Method:** Dispose of in accordance with local, state, and federal environmental regulations.

<b>SECTION 13: TRANSPORTATION INFORMATION</b>
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SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Isopropanol (Isopropyl Alcohol) Flammable Liquid	3	II	1219

<b>SECTION 14: REGULATORY INFORMATION</b>
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**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	2-Propanol	98.0

**TSCA NOTIFICATION:**

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

<b>SECTION 15: OTHER INFORMATION</b>
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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. Vishay Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.