

**OFI TESTING EQUIPMENT, INC.**  
**MATERIAL SAFETY DATA SHEET**

<b>SECTION I - PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>Chemical Name:</b>	Citric Acid, Isopropyl Alcohol Blend
<b>Trade Name:</b>	CITRIC ACID, DEMULSIFIER, IPA SOLUTION
<b>OFI Part No.</b>	151-20-1
<b>Chemical Family:</b>	2-Propanol; sec-propyl alcohol; isopropanol; sec-propanol; dimethylcarbinol
<b>Formula:</b>	(CH <sub>3</sub> ) <sub>2</sub> CHOH
<b>Manufacturer:</b>	OFI Testing Equipment, Inc. 1006 West 34 <sup>th</sup> Street Houston, TX 77018 U.S.A. (713) 880-9885
<b>In Case of Emergency Spills, Leaks, Fire, Exposure or Accident:</b>	In the USA, call INFOTRAC at 1-800-535-5053 day or night Outside the USA, call collect, (352) 323-3500
<b>SECTION II - COMPOSITION / INFORMATION ON INGREDIENTS</b>	
<b>CAS #:</b>	<b>CHEMICAL NAME</b>
67-63-0	Isopropyl Alcohol 16 to17%
77-92-9	Citric Acid 35%
97-99-4	Tetrahydrofurfuryl alcohol 16 to17%
67784-80-9	Methyl Ester of Canola Oil <1%
<b>SECTION III - HAZARD IDENTIFICATION</b>	
<b>Emergency Overview:</b>	Warning! Flammable Liquid And Vapor. Harmful If Swallowed Or Inhaled. Causes Irritation To Skin And Respiratory Tract. Affects Central Nervous System. May Be Harmful If Absorbed Through Skin. Causes Severe Eye Irritation.
<b>Inhalation:</b>	Inhalation of Vapors Irritates the Respiratory Tract. Exposure to High Concentrations has a Narcotic Effect, Producing Symptoms of Dizziness, Drowsiness, Headache, Staggering, Unconsciousness and Possibly Death.
<b>Ingestion:</b>	Can 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 mL (8 oz.)
<b>Skin:</b>	May Cause Irritation with Redness and Pain. May be Absorbed Through the Skin with Possible Systemic Effects.
<b>Eye Contact</b>	Vapors Cause Eye Irritation. Splashes Cause Severe Irritation, Possible Corneal Burns and Eye Damage.
<b>Chronic Exposure:</b>	Chronic Exposures may Cause Skin Effects.
<b>Aggravated by Exposure:</b>	Persons with Pre-Existing Skin Disorders or Impaired Liver, Kidney, or Pulmonary Function may be More Susceptible to the Effects of this Agent.
<b>SECTION IV - FIRST AID MEASURES</b>	
<b>Inhalation:</b>	Remove to Fresh Air. If not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention.
<b>Ingestion:</b>	Give Large Amounts of Water to Drink. Never Give Anything by Mouth to an Unconscious Person. Get Medical Attention.
<b>Skin:</b>	Immediately Flush Skin with Plenty of Water for at Least 15 Minutes. Call a Physician if Irritation Develops.
<b>Eyes:</b>	Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes, Lifting Upper and Lower Eyelids Occasionally. Get Medical Attention Immediately.

**SECTION V - FIRE FIGHTING MEASURES**

<b>Fire:</b>	Flash Point: 54 °F (12 °C) CC, Auto Ignition Temperature: 750 °F (399 °C)
<b>Explosion:</b>	Flammable Limits in Air % by Volume: lel 2.0, uel 12.7, Isopropyl Alcohol Above Flash Point, Vapor-Air Mixtures are Explosive within Flammable Limits noted above. Contact with Strong Oxidizers may Cause Fire. Sensitive to Static Discharge. Vapors can Flow Along Surfaces to Distant Ignition Source and Flash Back.
<b>Fire Extinguishing Media:</b>	Water Spray, Alcohol Foam, Dry Chemical, Foam or Carbon Dioxide. Water Spray may be used to Keep Fire Exposed Containers Cool, Dilute Spills to Nonflammable Mixtures, Protect Personnel Attempting to Stop Leak and Disperse Vapors.
<b>Special Information:</b>	In the Event of Fire, Wear Full Protective Clothing and NIOSH-Approved Self-Contained Breathing Apparatus with Full Facepiece Operated in the Pressure Demand or Other Postitive Pressure Mode.

**SECTION VI - ACCIDENTAL RELEASE MEASURES**

Ventilate area or Leak or Spill. Remove all Sources of Ignition. Wear Appropriate Personal Protective Equipment as Specified in Section 8. Isolate Hazard Area. Keep Unnecessary and Unprotected Personnel from Entering. Contain and Recover Liquid when Possible. Use Non-Sparking Tools and Equipment. Collect Liquid in an Appropriate Container or Absorb with an Inert Material (e.g., Vermiculite, Dry Sand, Earth), and Place in a Chemical Waste Container. Do Not Use Combustible Materials, such as Saw Dust. Do Not Flush to Sewer! US Regulations (CERCLA) Require Reporting Spills and Releases to Soil, Water and Air in Excess of Reportable Quantities.

**SECTION VII - HANDLING AND STORAGE**

Keep in a Tightly Closed Container, Stored in a Cool, Dry, Ventilated Area. Protect against Physical Damage and where a Fire Hazard May be Acute. Storage and Use should be No Smoking Areas. Do Not Pressurize, Cut, Weld, Braze, Solder, Drill, Grind or Expose Containers to Heat, Sparks, Flame, Static Electricity or Other Sources of Ignition. Containers of this Material may be Hazardous when Empty since they Retain Product Residues.

**SECTION VIII - EXPOSURE CONTROL / PERSONAL PROTECTION**

<b>Ventilation System:</b>	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.
<b>Airborne Exposure Limits:</b>	OSHA Permissible Exposure Limit (PEL) 400 ppm (TWA) ACGIH Threshold Limit (TLV) 400 ppm (TWA), 500 ppm (STEL)
<b>Personal Respirators: (NIOSH APPROVED)</b>	A Full-Face piece Organic Vapor Respirator may be Worn up to 50 Times the Exposure Limit or the Maximum Use Concentration Specified by the Appropriate Regulatory Agency or Respirator Supplier. Whichever is Lowest. For Emergencies or Instances Where the Exposure Levels are Not Known, Use a Full-Facepiece Positive-Pressure, Air Supplied Respirator.
<b>Skin Protection:</b>	Wear Impervious Protective Clothing, Including Boots, Gloves, Lab Coat, Apron or Coveralls, as Appropriate, to Prevent Skin Contact. Neoprene and Nitrile Rubber are Recommended.
<b>Eye Protection:</b>	Use Chemical Safety Goggles and/or a Full Face Shield where Splashing is Possible. Maintain Eye Wash Fountain and Quick-Drench Facilities in Work Area.

<b>SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>Appearance / Odor:</b>	Tan Liquid / Rubbing Alcohol Odor
<b>Solubility:</b>	Miscible in Water.
<b>Specific Gravity:</b>	0.79 @ 20°C
<b>pH:</b>	No Information Found
<b>% Volatiles by Vol.:</b>	100
<b>Melting Point:</b>	-128 ° F (-89 °C), For Isopropyl Alcohol
<b>Boiling Point:</b>	180 ° F (82 °C), For Isopropyl Alcohol
<b>Vapor Density (Air=1):</b>	2.1, For Isopropyl Alcohol
<b>Vapor Pressure (mmHg):</b>	44 @ 77 °F (25 °C), For Isopropyl Alcohol
<b>SECTION X - STABILITY AND REACTIVITY</b>	
<b>General Reactivity:</b>	Stable Under Ordinary Conditions of Use and Storage. Heat and Sunlight can Contribute to Instability.
<b>Hazardous Decomposition:</b>	Carbon Dioxide and Carbon Monoxide may Form when Heated to Decomposition.
<b>Incompatibilities:</b>	Heat, Flame, Strong Oxides, Acetaldehyde, Acids, Chlorine, Etylene Oxide, Hydrogen Peroxide-Sulfuric Acid Combination, Hypochlorous Acid, Aluminum, Oleum and Isocyanates.
<b>Hazardous Polymerization:</b>	Will Not Occur.
<b>SECTION XI - TOXICOLOGICAL INFORMATION</b>	
<b>Carcinogenic References:</b>	NTP Carcinogen - Known: No, IARC Category- 3
<b>SECTION XII - ECOLOGICAL INFORMATION</b>	
When Released to the Soil and Water, this Material may Evaporate to Moderate Extent. When Released into the Soil, This Material may Leach into Groundwater. When Released into the Water, This Material is Expected to have a Half Life Between 1 and 10 Days.	
<b>SECTION XIII - DISPOSAL CONSIDERATIONS</b>	
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.	
<b>SECTION XIV - TRANSPORT INFORMATION</b>	
<b>Shipping Name:</b>	ISOPROPANOL
<b>Hazard Class:</b>	3
<b>Identification No.:</b>	UN1219, Packing Group: II

**SECTION XV - REGULATORY INFORMATION**

<b>Chemical Inventory Status – Part 1:</b>	Ingredient	TSCA	EC	Japan	Australia
	Isopropyl Alcohol (67-63-0)	Yes	Yes	Yes	Yes
	Citric Acid (77-92-9)	Yes	Yes	Yes	Yes
	Tetrahydrofurfuryl alcohol(97-99-4)	Yes	Yes	Yes	Yes
	Methyl Ester of Canola Oil (67784-80-9)	Yes	Yes	Yes	Yes

<b>Chemical Inventory Status – Part 2:</b>	Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
	Isopropyl Alcohol (67-63-0)	Yes	Yes	No	Yes
	Citric Acid (77-92-9)	Yes	Yes	No	Yes
	Tetrahydrofurfuryl alcohol(97-99-4)	Yes	Yes	No	Yes
	Methyl Ester of Canola Oil (67784-80-9)	Yes	Yes	No	Yes

<b>Federal, State &amp; International Regulations – Part 1:</b>	Ingredient	-SARA 302- RQ	TPQ	-----SARA 313----- List	Chemical Catg.
	Isopropyl Alcohol (67-63-0)	No	No	Yes	No
	Citric Acid (77-92-9)	No	No	No	No
	Tetrahydrofurfuryl alcohol(97-99-4)	No	No	Yes	No
	Methyl Ester of Canola Oil(67784-80-9)	No	No	No	No

<b>Federal, State &amp; International Regulations – Part 2:</b>	Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
	Isopropyl Alcohol (67-63-0)	No	No	No
	Citric Acid (77-92-9)	No	No	No
	Tetrahydrofurfuryl alcohol(97-99-4)	No	No	No
	Methyl Ester of Canola Oil (67784-80-9)	No	No	No

**SECTION XVI - OTHER INFORMATION**

<b>NFPA Rating:</b>	HEALTH-2, FLAMMABILITY-4, REACTIVITY-0
<b>Disclaimer:</b>	The information contained herein is based upon data believed to be reliable and reflects our best professional judgment. Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein and assume no responsibility regarding the suitability of this information for the user's intended purpose or for the consequence of its use. Each individual should make a determination as to the suitability of the information for his/her particular purpose(s).