

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

<b>SECTION I - PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>Chemical Name:</b>	PHENOL , LIQUEFIED
<b>Trade Name:</b>	PHENOL SOLUTION 5%
<b>OFI Part No.</b>	144-943
<b>Chemical Family:</b>	Carbolic acid; Phenic acid; Phenylic Acid; Hydroxybenzene; Monohydroxybenzene.
<b>Formula:</b>	C <sub>6</sub> H <sub>5</sub> OH:H <sub>2</sub> O
<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>
108-95-2	Phenol 5.0%
<b>SECTION III - HAZARD IDENTIFICATION</b>	
<b>Emergency Overview:</b>	Poison! Danger! May Be Fatal If Swallowed, Inhaled Or Absorbed Through Skin. Rapidly Absorbed Through Skin. Corrosive. Causes Severe Burns To Every Area Of Contact. Affects Central Nervous System, Liver And Kidneys. Combustible Liquid And Vapor.
<b>Inhalation:</b>	Breathing Vapor, Dust or Mist Results in Digestive Disturbances (Vomiting, Difficulty in Swallowing, Diarrhea, Loss of Appetite). Will Irritate, Possibly Burn Respiratory Tract. Other Symptoms Listed Under Ingestion May Also Occur.
<b>Ingestion:</b>	Poison! Symptoms may Include Burning Pain in Mouth and Throat, Abdominal Pain, Nausea, Vomiting, Headache, Dizziness, Muscular Weakness, Central Nervous System Effects, Increase in Heart Rate, Irregular Breathing, Coma, and Possibly Death. Acute Exposure is Also Associated with Kidney and Liver Damage.
<b>Skin:</b>	Corrosive! Rapidly Absorbed Through the Skin with Systemic Poisoning Effects to Follow. Discoloration and Severe Burns may Occur, but may be Disguised by a Loss in Pain Sensation.
<b>Eye Contact:</b>	Corrosive! Eye Burns with Redness, Pain, and Blurred Vision may Occur. May Cause Severe Damage and Blindness.
<b>Chronic Exposure:</b>	Repeated Exposure may Cause Symptoms Described for Acute Poisoning as well as Eye and Skin Discoloration.
<b>Aggravated by Exposure:</b>	Persons with Pre-Existing Skin, Eye or Central Nervous System Disorders, or Impaired Liver, Kidney or Pulmonary Function may be more Susceptible to the Effects of this Substance.
<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 Immediately.
<b>Ingestion:</b>	If Swallowed, Immediately Administer Castor Oil or Other Vegetable Oil. Never give Anything by Mouth to an Unconscious Person. Be Ready to Induce Vomiting at the Advice of Physician or Poison Control Center. Castor Oil (or Vegetable Oil) Dosage Should be Between 15 and 30 cc. Get Medical Attention Immediately.
<b>Skin:</b>	In Case of Contact, Immediately Flush Skin with Plenty of Water while Removing Contaminated Clothing and Shoes. As soon as Possible, Repeatedly Apply Polyethylene Glycol to Affected Area. Destroy Contaminated Clothing and Shoes. It is Very Important to Avoid Rubbing or Wiping Affected Parts which would Aggravate Irritation and Cause Product Dispersion. Continue Treatment Until the Burned Area Changes Color from White to Pink. Expect that this can take a long period of time (20 minutes or more). The polyethylene glycol application should be done during transportation to the hospital. If polyethylene glycol is not available, flush with water for at least 30 minutes prior to going to hospital. Get medical attention immediately.
<b>Eyes:</b>	Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes, Lifting Lower and Upper Eyelids Occasionally. Get Medical Attention Immediately.

<b>SECTION V - FIRE FIGHTING MEASURES</b>	
<b>Fire:</b>	Flash Point: 174°F (79°C) CC. Auto Ignition Temperature: 1319°F (715°C). Flammable Limits in Air % by Volume: lcl -1.3, ucl - 8.6. Combustible. Contact with Strong Oxidizers may Cause Fire.
<b>Explosion:</b>	Above Flash Point, Vapor-Air Mixtures are Explosive within Flammable Limits Noted Above. Sealed Containers may Rupture when Heated.
<b>Fire Extinguishing Media:</b>	Dry Chemical, Alcohol Foam or Carbon Dioxide. Water Spray may be Used to Keep Fire Exposed Containers Cool.
<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 Positive Pressure Mode. Structural Firefighter's Protective Clothing is Ineffective for Fires Involving this Material. Stay Away from Sealed Containers.
<b>SECTION VI - ACCIDENTAL RELEASE MEASURES</b>	
	Ventilate area of 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. Neutralize with Soda Ash or Lime and 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.
<b>SECTION VII - HANDLING AND STORAGE</b>	
	Keep in a Tightly Closed Container. Store in a Cool, Dry, Ventilated Area Away from Sources of Heat or Ignition. Protect Against Physical Damage. Store separately from reactive or combustible materials, and out of direct sunlight. All phenol workers should be properly trained on its hazards and the proper protective measures required. This training should also include emergency actions. All phenol operations should be enclosed to eliminate any potential exposure routes. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.
<b>SECTION VIII - EXPOSURE CONTROL / PERSONAL PROTECTION</b>	
<b>Airborne Exposure Limits:</b>	OSHA-Permissible Exposure Protection (PEL): 5 ppm (TWA)(skin) ACGIH Threshold Limit Value(TLV): 5 ppm (TWA)(skin)
<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>Personal Respirators: (NIOSH APPROVED)</b>	If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge and dust/mist filter 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. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
<b>Skin Protection:</b>	Wear Impervious Protective Clothing, Including Boots, Gloves, Lab Coat, Apron or Coveralls, as Appropriate, to Prevent Skin Contact. Butyl Rubber and Neoprene are Suitable Materials.
<b>Eye Protection:</b>	Use Chemical Safety Glasses. Use 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>	Colorless to Light Pink Liquid / Sharp, Medicinal, Sweet, Tarry Odor
<b>Solubility:</b>	1g/15ml of Water; Very Soluble in Alcohol
<b>Specific Gravity:</b>	1.06 @ 20°C
<b>pH:</b>	No Information Found
<b>% Volatiles by Vol.:</b>	100
<b>Melting Point:</b>	No Information Found
<b>Boiling Point:</b>	360°F(182°C)
<b>Vapor Density (Air=1):</b>	3.2
<b>Vapor Pressure (mmHg):</b>	0.4@68°F(20°C)
<b>SECTION X - STABILITY AND REACTIVITY</b>	
<b>General Reactivity:</b>	Stable Under Ordinary Conditions of Use and Storage. Heat will Contribute to Instability.
<b>Hazardous Decomposition:</b>	Carbon Dioxide and Carbon Monoxide may Form when Heated to Decomposition. Toxic Gases and Vapors may be Released if Involved in a Fire.
<b>Incompatibilities:</b>	Oxidizers, Aluminum Chloride and Nitrobenzene, Calcium Hypochlorite, Butadiene, Halogens, Formaldehyde, Mineral Oxidizing Acids, Isocyanates, Sodium Nitrite and Many Other Materials.
<b>Hazardous Polymerization:</b>	Will Not Occur.
<b>Conditions to Avoid:</b>	Heat, flames, ignition sources and incompatibles.
<b>SECTION XI - TOXICOLOGICAL INFORMATION</b>	
<b>Carcinogenic References:</b>	IARC Category-3, NTP Carcinogen - Known: No
<b>SECTION XII - ECOLOGICAL INFORMATION</b>	
<b>Environmental Fate:</b>	When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is not expected to leach into groundwater. When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to have a half-life between 1 and 10 days. When released into water, this material is expected to readily biodegrade. When released into water, this material is not expected to evaporate significantly. When released into water, this material is expected to have a half-life between 10 and 30 days. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to have a half-life of less than 1 day.
<b>Environmental Toxicity:</b>	This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.
<b>SECTION XIII - DISPOSAL CONSIDERATIONS</b>	
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste 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>	PHENOL SOLUTION				
<b>Hazard Class:</b>	6.1				
<b>Identification No.:</b>	UN 2821, Packing Group II				
<b>SECTION XV - REGULATORY INFORMATION</b>					
<b>Chemical Inventory Status -</b>	Ingredient	TSCA	EC	Japan	Australia
<b>Part 1:</b>	Phenol (108-95-2)	Yes	Yes	Yes	Yes
<b>Chemical Inventory Status -</b>	Ingredient	Korea	DSL	NDSL	Phil.
<b>Part 2:</b>	Phenol (108-95-2)	Yes	Yes	No	Yes
<b>Federal, State &amp; International Regulations -</b>	Ingredient	-SARA 302- RQ	TPQ	-SARA 313- List	-SARA 313- Chemical Catg.
<b>Part 1:</b>	Phenol (108-95-2)	1000	500*	Yes	No
<b>Federal, State &amp; International Regulations -</b>	Ingredient	CERCLA	261.33	-RCRA- 8(d)	-TSCA-
<b>Part 2:</b>	Phenol (108-95-2)	1000	U188		No
<b>Chemical Weapons</b>					
<b>Convention:</b>	No				
<b>TSCA 12 (b):</b>	No				
<b>CDTA:</b>	No				
<b>SARA 311/312:</b>	Acute: Yes Chronic: Yes Fire: Yes Pressure: No Reactivity: No Mixture/Liquid)				
<b>Australian Hazchem Code:</b>	2X				
<b>Poison Schedule:</b>	S6				
<b>SECTION XVI - OTHER INFORMATION</b>					
<b>NFPA Rating:</b>	HEALTH-3, FLAMMABILITY-2, REACTIVITY-1				
<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).				