

## MATERIAL SAFETY DATA SHEET

Date Prepared: 5-21-97 By Charles D. Werner

SECTION 1 - PRODUCT IDENTIFICATION			
Manufacturer Name: Fortech Products by Formula Corporation		Emergency Phone No: 1-800-228-5635 ext. 059	
Address: 7901 2nd Ave S., Seattle, WA 98108			
Trade Name: TBI		Product Type: Iodine & Acid based disinfectant \ sanitizer	
Chemical Family: FFLDTBINX-CT-TBI		Formula:	
SECTION 2 - HAZARDOUS INGREDIENTS			
Chemical Name/Common Name:	CAS NO.	PERCENT	TLV (Source)
* Phosphoric Acid	7664-38-2	16	1 mg/cu m ACGIH
IODINE	7553-56-2	1.75	1 mg/cu m ACGIH
* Indicates toxic chemical subject to the reporting requirements of section 313 of title III and of 40 CFR 372			
SECTION 3 - PHYSICAL DATA			
Boiling Point: (F) approx. 212 F		Specific Gravity: (H2O = 1.0) 1.13	
Vapor Pressure: (mm/Hg) 24		pH: 1.0 - 2.0	
Solubility In Water: Complete		Vapor Density: 1 (air = 1)	
Evaporation Rate (Vs ether) slower than ether			
Appearance and Odor: Dark brown non-viscous liquid, mild iodine			
SECTION 4 - FIRE AND EXPLOSION HAZARD DATA			
Flash Point (T.C.C.): NONE Flammable Limits Upper N/A Lower N/A			
Extinguishing Media: Material is not flammable. Use media appropriate for surrounding material.			
Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus and full protective clothing. Use Water spray to cool nearby containers and structures exposed to fire. Thermal decomposition may emit toxic fumes of iodine and phosphorus.			
Unusual Fire and Explosion Hazards: Nothing special.			
SECTION 5 - REACTIVE DATA			
Stability: Stable Incompatibility: Strong oxidizers or reducing agents, alkalis, chlorinated products and soft metals .			
Hazardous Decomposition Products: At flame temperatures, will emit toxic phosphorus oxide and iodine fumes.			
SECTION 6 - HEALTH HAZARDS			
Threshold Limit Value - Product (See Section 2 for Ingredient TLV)		None Established	
Primary Routes of Exposure: Eye - yes Skin- yes Oral-yes Inhalation- no Other			
Serious exposures are seldom encountered in industry; iodine has low volatility in this product.			
<b>Signs and Symptoms of Over-exposure (Acute):</b> EYES: Vapors and mists of undiluted liquid are corrosive to the eyes. INHALATION: Phosphoric acid has a low vapor pressure at room temperature and is not expected to present a significant inhalation hazard under ambient conditions. Mists are corrosive to the nose, throat, and mucous membranes. SKIN: Redness, drying of skin or other signs of irritation or contact dermatitis. May not produce an immediate burning sensation upon skin contact, delaying the awareness of the worker that contact has been made. Not irritating in diluted form.			
<b>Acute Oral Toxicity:</b> LD50 (rats) is greater than 4,600 mg/kg		<b>Acute Dermal Toxicity:</b> LD50 (rats) is greater than 8,000 mg/kg	
Signs and Symptoms of Over-exposure (Chronic): Slightly toxic with repeated inhalation or ingestion. Prolonged absorption may produce "iodism" which will manifested by skin rash, running nose, headache and irritation of mucous membranes.			
Medical Conditions Aggravated by Over-exposure: Persons with pre-existing skin disorders, eye problems, impaired respiratory function may more susceptible.			
Carcinogen or Suspect Carcinogen Ingredients: NTP - NO IARC - NO OSHA - NO NONE			
SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES			
Eyes: Flush with immediately with lots of running water for at least 15 minutes holding eyelids open. GET MEDICAL ATTENTION IMMEDIATELY.			
Skin: Flush with water for at least 15 minutes. Remove contaminated clothing & shoes. Wash before reuse. Get medical attention if irritation persists.			
Ingestion: If conscious, drink 1 to 8 glasses of water or milk to dilute. DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION IMMEDIATELY. Treat symptomatically. Don not give anything by mouth to an unconscious or convulsing person.			
Inhalation: Get to fresh air. Give artificial respiration if not breathing.			
SECTION 8 - SPECIAL PROTECTION INFORMATION			
Respiratory Protection: not normally required		Ventilation Requirements: Adequate ventilation required. Mechanical required if necessary to maintain exposure below PEL.	
Protective Gloves: Wearing resistant gloves is recommended. Eye Protection: Not normally required. Recommended if used overhead or misting or spraying.			
Other Protective Clothing: Where gross eye and skin contact may occur use and wear appropriate protective clothing, including resistant clothing, rubber boots with pants on the outside, and rubber gloves.			
SECTION 9 - SPILL OR LEAK PROCEDURES			
Steps to be Taken if Released or Spilled: For small spills, dilute with water and rinse down sanitary sewer. For large spills, contain by diking with absorbent material and carefully neutralize with lime or sodium carbonate. Neutralize iodine with sodium thiosulfate or sodium sulfite. When neutralized, rinse with water into sanitary sewer system if in accordance with local, state and federal regulation.			
Waste Disposal Methods: Note that the contaminates of the product must be consider when disposing . Consult appropriate Federal, State and Local regulatory agencies to ascertain proper disposal procedures and comply with them.			
SECTION 10 - STORAGE AND HANDLING INFORMATION			
Precautions to be Taken in Handling and Storage: Store in a cool dry, well ventilated place away from incompatible materials. Keep container tightly closed when not in use. Avoid contamination of foodstuffs.			
Other Precautions: Empty containers will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. When mixing with water, always add this product slowly to water and stir. Do not reuse containers, Triple rinse.			