

**MATERIAL SAFETY DATA SHEET**

**SECTION I. IDENTIFICATION OF PRODUCT**

**Name:** FLO-DINE/IO-DIS DISINFECTANT

**Identity:** Iodine-Based Sanitizer      **MSDS Number:** 3441      **Date:** 09/23/2005      **Supersedes:** 08/19/2005

**TOXICITY:** 2      **FIRE:** 0      **REACTIVITY:** 0      **PROTECTION:** C

**SECTION II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

| Name            | CAS Number | PEL     | TLV     | %   |
|-----------------|------------|---------|---------|-----|
| Iodine          | 7553-56-2  | 0.1 ppm | 0.1 ppm | <2  |
| Phosphoric Acid | 7664-38-2  | 3mg/m3  | 1mg/m3  | <25 |

**SECTION III. PHYSICAL/CHEMICAL CHARACTERISTICS**

|                                       |   |  |                             |
|---------------------------------------|---|--|-----------------------------|
| <b>Boiling Point:</b><br>212° F       | <b>Specific Gravity:</b><br>1.132 ± 0.005 | <b>Vapor Pressure<br/>(mm Hg.):</b> ND | <b>Melting Point:</b><br>ND |
| <b>Vapor Density<br/>(Air = 1):</b> 1 | <b>Evaporation<br/>(H2O = 1):</b> 1       | <b>Water Solubility:</b><br>Complete   | <b>pH @ 77° F:</b><br>Acid  |
|                                       |   |  | <b>VOCgm/L:</b> 0           |

**Appearance and Odor:** Dark brown liquid, Iodine odor

**SECTION IV. FIRE AND EXPLOSION HAZARD DATA**

|                                   |                     |                     |                                |
|-----------------------------------|---------------------|---------------------|--------------------------------|
| <b>Flash Point (TCC):</b><br>None | <b>% LEL:</b><br>ND | <b>% UEL:</b><br>ND | <b>Flammable Limits:</b><br>ND |
|-----------------------------------|---------------------|---------------------|--------------------------------|

**Extinguishing Media:** Water fog, foam, carbon dioxide or dry chemical

**Special Fire Fighting Procedures:** Prevent breathing vapors. Wear SCBA and impervious protective clothing.

**Unusual Fire and Explosion:** May liberate corrosive iodine vapors

**SECTION V. HEALTH HAZARD DATA**

**Route(s) of Entry:** INHALATION? No    EYES? Yes    SKIN? Yes    INGESTION? No

**(Acute) Health Hazards:**

**Eyes:** Corrosive. Causes eye burns. May cause permanent damage

**Skin:** Corrosive. Causes severe skin burns.

**Ingestion:** Harmful if swallowed. Can cause severe burns to lining of throat and stomach.

**Inhalation:** Irritating to nose, throat and respiratory tract.

**(Chronic) Health Hazards:** None Known

**Signs and Symptoms of Exposure:**

**Eyes:** Corrosive to the eyes, may cause severe damage.

**Skin:** Slick feeling followed by delayed burning sensation if not removed, may cause deep ulceration.

**Ingestion:** Irritation and burns to stomach and intestines; nausea, vomiting, diarrhea

**Inhalation:** Occasional mild irritation effects to nose and throat may occur.

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

**Emergency First Aid Procedures**

**Have the product container or label with you when calling a poison control center or doctor or going for treatment.**

**Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advise.

**Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advise.

**Ingestion:** Call poison control center or doctor immediately for treatment advise. Have person sip a glass of water, if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advise.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

**DANGER:** KEEP OUT OF REACH OF CHILDREN. CORROSIVE. Causes irreversible eye damage and skin burns. Do not get in eyes, skin or on clothing. Wear goggles or face shield, rubber gloves and protective clothing. Harmful if swallowed. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

#### SECTION VI. TOXICITY DATA

**Carcinogenicity:** NTP? No IARC No OSHA REGULATED? No

#### SECTION VII. REACTIVITY DATA

**Stability:** Stable **Hazardous Polymerization Will Not Occur**  
**Incompatibility (Materials to Avoid):** Alkalis, reducing agents, strong oxides, chlorinated products  
**Hazardous Decomposition Byproducts:** May give off iodine vapors with high temperatures. Will emit chlorine gas if mixed with chlorinated products.

#### SECTION VIII. PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps to be Taken in Case Material is Released or Spilled:**

**Small Spills:** Neutralize with sodium thiosulfate solution or sodium sulfite or flood area with water.

**Large Spills:** Same as for small spill. Flood area with large quantities of water.

**Disposal:** Meet Federal, State & Local Requirements

**Handling and Storage:** Avoid storing near chlorine products. Avoid storing at high temperatures.

**Other Precautions:** Keep out of reach of children. FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY.

**Pesticide Storage:** Store in a dry place no lower in temperature than 25°F or higher than 100°F.

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.**

**CONSULT PRODUCT LABEL FOR ADDITIONAL INFORMATION ON STORAGE AND DISPOSAL.**

#### SECTION IX. CONTROL MEASURES

**Respiratory Protection:** NIOSH Approved, air purifying

**Ventilation:** Normal indoor

**Local Exhaust:** Not normally indicated when used as directed.

**Mechanical (General):** Not normally indicated unless mist is generated

**Protective Gloves:** Rubber, vinyl

**Eye Protection:** Chemical safety goggles

**Other Protective Clothing or Equipment:** Long pants, sleeves, apron

**Work/Hygienic Practices:** The recommendations described in this section are provided as general guidance for minimizing exposure when handling this product. Because use conditions will vary, depending upon customer applications, specific safe handling procedures should be developed by persons knowledgeable of the intended use conditions and equipment.

#### SECTION X. DOT INFORMATION

CORROSIVE LIQUIDS, n.o.s. (Phosphoric Acid, Iodine), 8, UN 1760, PG III

#### SECTION XI. MISCELLANEOUS INFORMATION

**SARA 313:** No

**Notice:** All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, manufacturer makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product.

NA - Not Available NE - Not Established ND - Not Determined