

**MATERIAL SAFETY DATA SHEET**

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Nikken Printing Supply U.S.A., Inc.**

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Reviewed on: APR-18-2005

**24 HOUR EMERGENCY TELEPHONE NUMBER: 1-800-535-5053 INFOTRAC**

**PRODUCT TRADE NAME:**

**MARK X, Fountain Solution**

**SYNONYMS:**

**Water base mixture**

**2. COMPOSITION / INFORMATION ON INGREDIENTS:**

<u>Chemical Name</u>	<u>% by Wt Range</u>	<u>CAS Number</u>	<u>EXPOSURE LIMITS 8 hr. TWA (PPM)</u>	
			<u>OSHA PEL</u>	<u>ACGIH TLV</u>
2-(t-Butoxy)ethanol	40.00-50.00	7580-85-0	Not Established	Not Established

**3. HAZARDS IDENTIFICATION:**

**EMERGENCY OVERVIEW**

Clear, light yellow liquid mixture with glycol ether odor. Caution! Irritant liquid and Vapor, Flash Point : 144°F(=62°C), TCC. Contact with liquid may cause skin and eye irritation. Overexposure may cause nose, throat, and respiratory tract irritation. Do not get in eyes, on skin, on clothing. Wear safety gloves and goggles. Use product with adequate ventilation. Wash hands thoroughly after use. Keep container tightly closed when not in use.

**HMIS HAZARD CLASS**

<b>HEALTH</b>	<b>(Blue)</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>(Red)</b>	<b>1</b>
<b>REACTIVITY</b>	<b>(Yellow)</b>	<b>0</b>
<b>PROTECTIVE EQUIPMENT B</b>		

**HAZARD INDEX:**

0=Minimal Hazard

1=Slight Hazard

2=Moderate Hazard

3=Serious Hazard

4=Severe Hazard

B: Safety glasses and gloves

**POTENTIAL HEALTH EFFECTS**

**EYES:** Exposure may cause eye irritation, stinging, tearing, redness, and swelling.

**SKIN CONTACT:** Exposure may cause skin irritation.

**SKIN ABSORPTION:** Prolonged or repeated liquid contact can result in defatting, cracking, burning, and drying of the skin which may result in skin

irritation and dermatitis. Skin absorption is possible, and skin contact may be harmful.

**INGESTION:** Single dose oral toxicity is moderate. Swallowing large amounts may cause gastric irritation and abdominal spasms, and acidosis.

**INHALATION:** Short-term inhalation toxicity is moderate. Exposure may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits.

**CHRONIC (CANCER) INFORMATION:** This product has not been identified as possible cancer hazard by NTP, IARC, or OSHA.

**ACUTE EFFECTS:** May cause skin, eye and digestive tract irritation.

**OTHER HEALTH HAZARDS:** None.

**4. FIRST AID MEASURES:**

**EYES:** Immediately flush eyes with water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical attention.

**SKIN:** Wash off in flowing water or shower. Get medical attention if irritation develops and persists. Remove contaminated clothing.

**INGESTION:** Give two glasses of water and do not induce vomiting. Seek medical attention.

**INHALATION:** Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

**NOTE TO PHYSICIAN:** Treat symptomatically and supportively.

**5. FIRE FIGHTING MEASURES:**

**FLASH POINT:** 144°F(=62°C), TCC.

**EXTINGUISHING MEDIA:** Use water, carbon dioxide, and dry chemical.

**FIRE FIGHTING INSTRUCTIONS:** Firemen should wear a self-contained breathing apparatus and full protective clothing.

**FIRE & EXPLOSION HAZARDS:** Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

**6. ACCIDENTAL RELEASE MEASURES:**

Soak up small spill with adequate absorbent material. Pump large spill into drums. Prevent materials draining into sewers or waterways. Dispose in a manner consistent with federal, state, and local regulations.

**MARK X, Fountain Solution**

**7. HANDLING AND STORAGE:** Cause eye and skin irritation. Do not get in eyes, on skin, on clothing. Avoid ingestion and skin contact. Wash thoroughly after handling. Empty containers retain product residue, (liquid and/vapor), and can be dangerous. Do not cut, weld, pressurize, and braze, solder, grind, drill, or expose such containers to heat, sparks or open flames. Empty drums should be completely drained, properly bunged, and promptly returned and disposed of. Prevent build up of vapors to explosive concentration. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Use with adequate ventilation. Maintain good housekeeping. FOR INDUSTRIAL USE ONLY.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION:**

**Engineering controls:** Local exhaust ventilation may be necessary to keep airborne concentrations below the permissible exposure limits-SEE SECTION 2.

**PERSONAL PROTECTIVE EQUIPMENT (PPE): RESPIRATORY PROTECTION:** Avoid prolonged or repeated breathing of vapors.

If exposure may or does exceed occupational exposure limits (SEC. 2) use a NIOSH-Approved respirator to prevent overexposure. In accord with 29 CFR 1910.134. Use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**EYE PROTECTION:** Use safety glasses or goggles as appropriate (29 CFR 1910.133).

**SKIN:** Wear rubber gloves.

**OTHER CLOTHING AND EQUIPMENT:** It is suggested that a source of clean water be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance:** Clear, light yellow liquid      **Odor:** Glycol ether mixture odor      **Boiling Point:** 144°F(62°C)  
**Vapor Density:** 0.97-1.00 (g/cm3)      **Solubility in Water:** Soluble in water      **Specific Gravity:** 1.005      **pH:** 3.4-3.8  
**Volatile Organic Content (VOC, EPA Method 24):** Not determined  
**VOC Composite Partial Pressure, mm Hg at 20°C:** N/D  
**Photochemical Reactivity SCAQMD Rule 443:** None Photochemically Reactive

**10. STABILITY AND REACTIVITY:**

**STABILITY:** Stable under normal ambient temperature and pressure.

**CONDITIONS TO AVOID:** Open flame and excessive heat.

**HAZARDOUS POLYMERIZATION:** Has not been reported.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Incompatible materials, organic materials or explosives.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide, ammonia, nitrogen oxide, nitrous oxide, nitrogen and other materials.

**11. TOXICOLOGICAL INFORMATION:**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>LC50 PPM (Inhalation rat)</u>	<u>LD 50 mg/kg (Oral-rat)</u>
2-(t-Butoxy) ethanol	7580-85-0	N/D	N/D

**12. ECOLOGICAL INFORMATION:** No aquatic toxicity data available for the mixture.

**13. DISPOSAL CONSIDERATIONS:** Dispose in a manner consistent with federal, state, and local regulations. Refer to latest EPA or State Regulations regarding proper disposal.

**14. TRANSPORT INFORMATION:** This product is not hazardous material for (DOT) shipping.

D.O.T. SHIPPING description:	SHIPPING NAME:	Not Regulated.
IMO:	SHIPPING NAME:	Not Regulated.
IATA:	SHIPPING NAME:	Not Regulated.

**15. REGULATORY INFORMATION:**

**SARA Section 313:** The following ingredients subject to reporting requirements of Section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.65:

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**16. OTHER INFORMATION:** All information appearing herein is based upon Data obtained from Manufacturer and/or recognized technical sources. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the material are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, disposal of the material. It is the use's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use. To the best of our knowledge, the information contained herein is accurate. However, neither Nikken Printing Supply U.S.A., Inc., nor any of its distributors assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.