

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCTION AND USE

Product identifier: ALKALINE PAPER CHECK PEN
Product use: pH check on paper
Manufacturer's name: Nikken Printing Supply U.S.A., Inc.
Address: 1117 Tower Road, Schaumburg, IL 60173 U.S.A.
Business Phone/Fax No.: Phone (847) 885-1163 / Fax (847) 885-1932
24-hours Road Emergency Phone: 1-800-535-5053 INFOTRAC

SECTION 2 - COMPONENT HAZARD DATA

<u>Component(s)</u>	<u>CAS Number</u>	<u>Percentage ranges (%)</u>
Bromothymol blue	7732-18-5	5.0 - 10.0
Ethanol	64-17-5	30.0 - 50.0
Water	7732-18-5	50.0 - 80.0

SECTION 3 - HAZARDS IDENTIFICATION

HMIS	Health	= 2	0 = Minimal
Code:	Flammability	= 2	1 = Slight
	Reactivity	= 0	2 = Moderate
	Protection	= Respirator, Gloves and Goggles.	3 = Serious 4 = Severe

SECTION 4 - PHYSICAL DATA

Appearance and odor: Purple color liquid; Faint odor of alcohol.
Boiling point: Approx. 80 °C
Specific gravity(H₂O=1): 0.98
Vapor density(air=1): >1
Vapor pressure: 25.5 mm Hg
Solubility in water: Soluble
Percent volatile by volume(%): N/D
Evaporation rate: <1
(n-butyl acetate=1):

SECTION 5 - FIRE AND EXPLOSION DATA

Flash point and method: N/D
Extinguishing media: Dry chemical; carbon dioxide; CO₂ halogen agent.
Special fire fighting procedures: Use self-contained air supply for respiratory assistance and wear protective clothing to prevent contact with skin and eyes.
Unusual fire / explosion hazards: None.

SECTION 6 - REACTIVITY DATA

Chemical stability: Stable.
Conditions to avoid: Avoid exposure to high heat sources, open flame, and strong oxidizing agents.
Incompatibility: Avoid strong oxidizing agents.
Hazardous decomposition product: None.
Hazardous polymerization: Will not occur.

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SECTION 7 - TOXICOLOGICAL PROPERTIES

Route(s) of entry: Inhalation; ingestion; skin contact, eye contact.
Effects of acute exposure: Causes irritation to skin, eyes, nose, and throat.
Effects of chronic exposure: Prolonged and repeated overexposure may cause dermatitis.
Carcinogenicity: The components of this product haven't shown any evidence of carcinogenicity.

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SECTION 8 - PREVENTIVE MEASURES

A) Special Protection Information

Respiratory Protection: Air-supplied and filtering type.
Ventilation: Local exhausts: Recommended.
Mechanical(General): Should be sufficient in work area.
Skin protection: Latex; dry rubber; Neoprene water-proof gloves.
Eye protection: Safety glasses to avoid chemical splash.
Other protective equipment: Rubber or plastic apron.

B) Spill Leak, and Disposal Procedures

Spill or leak: Minor spills may be absorbed with ground clay, vermiculite, or similar absorbent material. Use chemical vacuum or other safe and approved method to remove major spills. Then place into proper containers for legal disposal.

Disposal: Recommended to incinerate flow pens in a permitted facility. Empty pens can be landfilled. Otherwise, consult with Federal, State, and/or local regulatory agencies for appropriate disposal methods.

C) Special Precautions and Work Practice

Special handling & work practice: Do not take internally. Harmful or fatal if swallowed. For industrial use only. Keep out of reach of children. Liquid contents are corrosive to skin and eyes. Wash hands thoroughly after use. Use only with adequate ventilation. Remove and wash contaminated clothing immediately. Store the pens in a cool, dark, and well-ventilated place, away from extreme heat and fire hazards. Keep pens tightly capped after use.

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SECTION 9 - FIRST AID MEASURES

Eye contact: Immediately flush eyes with water for 15 minutes. Seek medical attention.
Skin contact: Wash thoroughly with soap and water. Remove contaminated clothing.
Inhalation: Remove victim to fresh air.
Ingestion: Do not induce vomiting. Call physician.

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SECTION 10 - PREPARATION DATE OF MSDS

Date of preparation: May 1, 2006
Prepared by: Nikken Chemical Laboratory Co., Ltd.
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