

# MATERIAL SAFETY DATA SHEET

MSDS: 2008017010US  
Date Prepared: July 7, 2008  
Date Revised :  
page 1 of 4

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Penetration ink

Company Name:

Konica Minolta IJ Technologies, Inc.  
Sakura-machi 1, Hino-shi, Tokyo 191-8511 Japan

Telephone Number:

TEL: +81-42-589-3739  
FAX: +81-42-589-3868

Emergency Telephone Number:

CHEMTREC 1-800-424-9300

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS#	wt. %
Water	7732-18-5	40 - 50
Organic solvent	Company confidential	40 - 50
Ethylene glycol	107-21-1	1 - 10

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

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*****  
* Clear colorless liquid. Slight Characteristic odor. *  
* May cause eye and mucous membrane irritation. Inhalation of vapor or *  
* mist may cause irritation of nose and throat mucous membranes. *  
*****
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### POTENTIAL HEALTH EFFECTS

Eye Effects : May cause eye and mucous membrane irritation.

Skin Effects : May cause slight skin irritation.

Ingestion Effects : None currently known.

Inhalation Effects: Inhalation of vapor or mist may cause irritation of nose and throat mucous membranes.

Chronic Effects/ Carcinogenicity:

None of the components in this material is listed by IARC, NTP or ACGIH as a carcinogen.

(Continued on page 2 )

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page 2 of 4

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## 4. FIRST AID MEASURES

- Eye** : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- Skin** : Wash with water for 15 minutes. If symptoms occur, get medical attention.
- Ingestion** : Wash out mouth with water. Drink one or two glasses of water. Get medical attention. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
- Inhalation**: No exposure expected under normal conditions. Large amount of vapor or mist if inhaled, move victim to fresh air immediately. Get medical attention immediately.

## 5. FIRE FIGHTING MEASURES

- Flash Point** : None
- Method Used** : Not applicable
- Flammable Limits** : Not applicable
- Autoignition Temperature** : Not applicable
- Flammability Classification**:
- Unusual Fire and Explosion Hazard**: May be flammable when the moisture of the solution evaporates at high temperature.
- Extinguishing Media**: Water spray, dry chemical, carbon dioxide, alcohol-resistant foam.
- Fire Fighting**: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Apply cooling water to sides of containers that are exposed to flames. Combat fire out of sheltered position.
- Hazardous Combustion Products**: Carbon monoxide, carbon dioxide.

## 6. ACCIDENTAL RELEASE MEASURES

### Spill and Leakage Procedures:

- Large spill**: Wear personal protective equipment(See Section 8). Ventilate closed spaces before entering. Stop leak if you can do it without risk. Dike far ahead of large spill to assure containment. Absorb spill with inert material(e.g. dry sand or earth), then place in a chemical waste container.
- Small spill**: Wear personal protective equipment(See Section 8). Ventilate closed spaces before entering. Stop leak if you can do it without risk. Absorb spill with inert material(e.g. dry sand or earth), then place in a chemical waste container.

## 7. HANDLING AND STORAGE

### Handling:

Avoid contact with eyes, skin and clothing. Wear personal protective equipment (See Section 8). Use with adequate ventilation. Wash thoroughly after handling.

### Prevention of Fire and Explosion:

No special precautionary measures should be required under normal use conditions.

### Storage:

Keep container tightly closed. Store in a cool and dry place. Keep away from incompatible substances(See Section 10).

(Continued on page 3 )

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page 3 of 4

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:

INGREDIENTS	ACGIH TLV		
	TWA	STEL	OSHA PEL
Organic solvent	None established		None established
Ethylene glycol	None established	C 100mg/m <sup>3</sup>	None established

Engineering Controls: Use process enclosures or local exhaust ventilation.

Respiratory Protection: Not required under normal conditions.

Skin Protection: Impervious gloves should be worn.

Eye Protection: Splash goggles should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear colorless liquid  
Odor : Slight Characteristic odor  
pH : 8.0 - 10.0  
Vapor Pressure : Not available.  
Vapor Density : Not available.  
Evaporation Rate: Not available.  
Boiling Point : Not available.  
Melting Point : Not applicable.  
Solubility : Completely soluble in water.  
Specific Gravity: 1.00 - 1.10

## 10. STABILITY AND REACTIVITY

Stability: Stable.

Incompatibility: Oxidizers.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION:

Product

No data for mixture.

Ingredients

Organic solvent

Acute oral toxicity : LD50: 20000mg/kg[rat], LD50: 22000mg/kg[mouse], LD50: 18500mg/kg[rat], LD50: 18350mg/kg[guinea pig]

Acute dermal toxicity : LD50: 20800mg/kg[rabbit]

Eye irritation : Minimal[rabbit]

Skin irritation : Mild[rabbit]

Mutagenicity : Ames test Negative, Chromosomal aberration test Negative, Micronucleus test Negative

Ethylene glycol

Acute oral toxicity : LD50: 4700mg/kg[rat], LD50: 7500mg/kg[mouse]

Eye irritation : Mild[rabbit]

Skin irritation : Mild[rabbit]

Mutagenicity : Ames test Negative, Chromosomal aberration test Negative

(Continued on page 4 )

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page 4 of 4

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## 12. ECOLOGICAL INFORMATION:

### Ingredients

#### Organic solvent

Biodegradation : Readily biodegradable  
Fish acute toxicity : 96hrLC50:>100mg/l [Oryzias latipes]  
Daphnia acute toxicity : 48hrEC50:>1000mg/l [Daphnia magna]  
Algae growth inhibition: 48hrEC50:>1000mg/l [Selenastrum capricornutum]  
Octanol/water partition coefficient: -1.400

#### Ethylene glycol

Biodegradation : Readily biodegradable  
Fish acute toxicity : 24hrLC50: >5000mg/l -modified ASTM D 1345 [Goldfish]  
Daphnia acute toxicity : 48hrEC50: 10000mg/l [Daphnia magna]  
Algae growth inhibition: 1g/l No effect [Scenedesmus subspicatus]  
Octanol/water partition coefficient: -1.930

## 13. DISPOSAL CONSIDERATIONS:

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

## 14. TRANSPORT INFORMATION:

DOT/TDG CLASS: Not regulated.

## 15. REGULATORY INFORMATION:

OSHA Hazard Communication Standard, 29CFR 1910.1200:

This product is considered hazardous under this standard.

CERCLA (Comprehensive Environmental Response Compensation and Liability Act):

Ethylene glycol: Reportable Quantities 5000 lb (2270 kg)

SARA Title III (Superfund Amendments and Reauthorization Act)

302 Extreme Hazardous Substance: None.

311/312 Hazard Categories: None.

313 Reportable Ingredients: Ethylene glycol

## 16. OTHER INFORMATION:

HMIS Hazard Rating Health:2, Flammability:1, Reactivity:0