MATERIAL SAFETY DATA SHEET

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ex-UV SP2 Black

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.%
Oxetane, 3,3'-[oxybis(methylene)] bis[3-ethyl-.	18934-00-4	40 - 70
Oxabicycloalkane carboxylic acid alkanediyl ester (generic)	Company confidential	10 - 30
Ethylhexyl oxetane (generic)	Company confidential	5 - 20
Organic sulfur compound	Company confidential	1 - 10
Carbon Black	1333-86-4	1 - 5

3.HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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* Black liquid. Slight aromatic 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 : None currently known.
Ingestion Effects : None currently known.
Inhalation Effects: Inhalation of vapor or mist may cause irritation of nose and throat mucous membranes.
Chronic Effects/ Carcinogenicity:
Carbon black is possibly carcinogenic to humans. (IARC classification is Group 2B). This product contains a chemical known to the State of California to cause cancer.

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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 and mild soap.
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 : 291.2 F (Oxetane, 3,3'-[oxybis(methylene)]bis[3-ethyl-.)
Method Used : COC
Flammable Limits : Not available
Autoignition Temperature : Not available
Flammability Classification: IIIB
Unusual Fire and Explosion Hazard: May be flammable by excessive heating.
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. Eliminate all sources of ignition. 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. Eliminate all sources of ignition. 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).

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8.EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL
Oxetane, 3,3'-[oxybis(methylene)] bis[3-ethyl-.	None established		None established
Oxabicycloalkane carboxylic acid alkanediyl ester (generic)	None established		None established
Ethylhexyl oxetane (generic)	None established		None established
Organic sulfur compound	None established		None established
Carbon Black	3.5mg/m3		3.5mg/m3

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 : Black liquid
Odor : Slight aromatic odor
pH : Not available.
Vapor Pressure : Not available.
Vapor Density : Not available.
Evaporation Rate: Not available.
Boiling Point : Not available.
Melting Point : Not applicable.
Solubility : Insoluble in water.
Specific Gravity: Not available.

10.STABILITY AND REACTIVITY

Stability: Stable.
Incompatibility: Oxidizers.
Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

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11.TOXICOLOGICAL INFORMATION:

Product

Acute oral toxicity	: LD50: >2000mg/kg[rat](data of similar product)
Skin irritation	: None[rabbit](data of similar product)

Ingredients

Oxetane, 3,3'-[oxybis(methylene)]bis[3-ethyl-.

Acute oral toxicity	: LD50: 500～300mg/kg[rat]
Subacute oral toxicity	: 28-day repeated dose toxicity test[rat] NOEL male 40 mg/kg/day, female 200 mg/kg/day
Eye irritation	: Moderate[rabbit]
Skin irritation	: Mild P.I.I.=1[rabbit]
Skin sensitization	: None 0%[guinea pig]
Mutagenicity	: Ames test Negative, Chromosomal aberration test Positive, Micronucleus test Negative

Oxabicycloalkane carboxylic acid alkanediyl ester (generic)

Acute oral toxicity	: LD50: >2000mg/kg[rat]
Acute dermal toxicity	: LD50: > 2000mg/kg[rat]
Subacute oral toxicity	: 28-day repeated dose toxicity test[rat] NOAEL male 1000 mg/kg/day, female 1000 mg/kg/day
Eye irritation	: Minimal[rabbit]
Skin irritation	: Mild P.I.I.=0.16[rabbit]
Skin sensitization	: none 0%[guinea pig]
Mutagenicity	: Ames test Negative, Chromosomal aberration test Positive, Micronucleus test Negative

Ethylhexyl oxetane (generic)

Acute oral toxicity	: LD50: >2000mg/kg[rat], LD50: >2500mg/kg[rat]
Acute dermal toxicity	: LD50: >2000mg/kg[rat]
Subacute oral toxicity	: 28-day repeated dose toxicity test[rat] NOEL male 100 mg/kg/day, female 100 mg/kg/day
Eye irritation	: Minimal[rabbit]
Skin irritation	: Moderate P.I.I.=3.1[rabbit]
Skin sensitization	: none[guinea pig]
Mutagenicity	: Ames test Negative, Chromosomal aberration test Negative

Organic sulfur compound

Acute oral toxicity	: LD50: >2000mg/kg[rat]

Carbon Black

Eye irritation	: Mild[rabbit]
Carcinogenicity	: This material is posibly carcinogenic to humans(IARC classification is Group2B).
Mutagenicity	: Ames test Negative

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12.ECOLOGICAL INFORMATION:

Ingredients

Oxetane, 3,3'-[oxybis(methylene)]bis[3-ethyl-.
- Biodegradation : BOD=0 (28-Days Biodegradation)
- Bioaccumulation : Negligible
- Fish acute toxicity : 96hrLC50:76mg/l[Rainbow trout]
- Daphnia acute toxicity : 48hrNOEC:100mg/l[Daphnia magna]
- Algae growth inhibition: NOEC(growth):>100mg/l

Oxabicycloalkane carboxylic acid alkanediyl ester (generic)
- Biodegradation : Not biodegradable
- Fish acute toxicity : 96hrLC50: 12mg/l[Carp]
- Daphnia acute toxicity : 48hrEC50: >64mg/l[Daphnia magna]
- Algae growth inhibition: EbC50(0-96hr): >70mg/l[Selenastrum capricornutum]
  ErC50(24-96hr): >70mg/l[Selenastrum capricornutum]
- Octanol/water partition coefficient: 2.9,3.0,3.1(major components)2.900

Ethylhexyl oxetane (generic)
- Biodegradation : BOD=0 (28-Days Biodegradation)
- Bioaccumulation : Bioconcentration Factor=127～347 (conc. 0.04mg/l)
- Fish acute toxicity : 96hrLC50:1.9mg/l[Rainbow trout]
- Daphnia acute toxicity : 48hrNOEC:1.6mg/l[Daphnia magna]
- Algae growth inhibition: 72hrEbC50=0.58mg/L 72hrErC50=1.0mg/L

13.DISPOSAL CONSIDERATIONS:

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method. No release to water.

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):
None.

SARA Title III (Superfund Amendments and Reauthorization Act)
- 302 Extreme Hazardous Substance: None.
- 311/312 Hazard Categories: Immediate health hazard.
- 313 Reportable Ingredients: None.

TSCA(Toxic Substance Control Act):
All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
- Oxetane, 3,3'-[oxybis(methylene)]bis[3-ethyl-.
  TSCA SNUR (40 CFR 721.10095)
- Oxabicycloalkane carboxylic acid alkanediyl ester (generic)
  TSCA SNUR (scheduled to be issued)
- Ethylhexyl oxetane (generic)
  TSCA section 5(e) consent order
  Not use this substance other than as an ink and/or as an adhensive.

California Proposition 65:
This product contains no chemical substances subject to California Proposition 65.

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16.OTHER INFORMATION:

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

Ultralow volume of benzene will liberate from the ink upon curing. The amount is supposed to be less than limit prescribed by WHO, we recommend to use appropriate ventilation during working time.

The above information is believed to be accurate and represents the best information currently available to our company. However, our company make no warranty with respect to such information, and our company assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.