

# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1. Identification of the substance or preparation

Product Name : Reactive Dye 2 Ink Black  
Product Code : SPC-0357K-A, 0393K-A

### 1.2. Use of the substance/preparation

General Use : Ink jet printing ink  
Product Description : Reactive Dye ink

### 1.3. Company/undertaking identification

#### MANUFACTURER

Company Name : Mimaki Engineering Co., Ltd  
Address : 2182-3 Otsu, Shigeno, Tomi-shi, Nagano 389-0512 Japan  
Telephone No. : +81-268-64-2413  
Charge post : Inks and Media Division  
Person in charge : Isao Tabayashi  
E-mail address : tabayashi@mimaki.jp

#### IMPORTER/DISTRIBUTOR ESTABLISHED IN EU

Company Name : MIMAKI EUROPE B.V.  
Address : Joan Muyskenweg 42-44, 1099CK Amsterdam  
Telephone No. : +31-20-4627-640  
Person in charge : Sakae Sagane

### 1.4. Emergency telephone

EMERGENCY : Mimaki Engineering Co., Ltd +81-268-64-2413  
TELEPHONE : National Vaccine Information Center (NVIC)  
NUMBER : +31-30-274888

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW :

Ink component is a black liquid unlikely to cause harmful under normal conditions of handling and use. Avoid contact with eyes or clothing. In the case of skin contact, wash with soap and water. Keep out of reach of children.

### POTENTIAL HEALTH EFFECTS

Inhalation : Intentional exposure to ink vapors may cause respiratory irritation.

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Eye : Ink contact with eye may be mildly irritating.  
 Skin : Ink contact with skin may cause irritation, swelling, or redness.  
 Ingestion : May cause upset stomach.

## POTENTIAL ENVIROMENTAL EFFECTS

: Not available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Chemical Name	Wt%	CAS No.	EINECS No.	Symbol letters	Risk Phrase	Chemical Formula
1	2,2'-oxydiethanol	5-15	111-46-6	203-872-2	Xn	R22	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>
2	Polyxythylene alkyl ether	<5	Trade Secret	Trade Secret	Xi	R36	Trade Secret
3	Monochlorotriazine reactive Dye	5-15	Trade Secret	Trade Secret	Xi	R43	Trade Secret

\*The wording of the symbol(s) and risk phrase(s) is specified in 16.OTHER INFORMATION.

### 4. FIRST AID MEASURES

INHALATION : Remove subject to ventilated fresh air. Consult physician if necessary.  
 EYE : Immediately flush with room temperature, low pressure, and clean water for at least 15 minutes. Seek medical attention if eye irritation continues.  
 SKIN : Wash surface areas with soap and water. Wash soiled clothing before rewearing. Consult a physician if irritation continues.  
 INGESTION : Wash out mouth with water and give 200~300 ml(half a point) of water to drink. Do not induce vomiting. Obtain medical attention if ill effects occur.  
 PROTECTION TO FIRST-AIDERS : Not available

### 5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES : Not flammable  
 EXTINGUISHING MEDIA : Dry chemical or carbon dioxide

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FIRE FIGHTING INSTRUCTIONS : No special fire fighting procedures are required other than breathing apparatus. No special explosion hazards are known.

### 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL : If a spill occurs, use sponges to wipe-up ink, and then rinse area with damp cloth. Place waste in closed container for disposal.  
WATER SPILL : Do not dispose of waste to use the sewer.

### 7. HANDLING AND STORAGE

HANDLING : Keep out of reach of children and do not drink ink. Do not store the cartridge in high or freezing temperatures. Keep cartridge out of direct sunlight.  
STORAGE : Do not dismantle cartridge. Do not store cartridges with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Exposure limit values

2,2'-oxydiethanol : MAK: 10 ppm, 44 mg/m<sup>3</sup>; Peak limitation category: II(4); Pregnancy risk group: C; (DFG 2004).

#### 8.2. Exposure controls

##### 8.2.1. Occupational exposure controls

Engineering Controls : Not available.

##### Personal Protection

: None required when cartridges are used as intended.

##### 8.2.2. Environmental exposure controls

: Where suitable engineering controls are not fitted or are inadequate, wear suitable protective equipment.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. General information

Appearance - Physical state : liquid  
- Color : Black  
Odor : None

#### 9.2. Important health, safety and environmental information

pH : about 8 (20 degree C)  
Boiling Point / Boiling Range : Not available  
Flash Point : Not available  
Flammability(solid, gas) : Not available  
Relative density : Not available  
Solubility : Not available  
Water solubility : miscible  
Viscosity : less than 5 mPa · s (20 degree C)

#### 9.3. Other information

Melting Point / Merging Range : Not applicable  
Auto-Ignition Temperature : Not available  
Specific Gravity : 1.00~1.10

### 10. STABILITY AND REACTIVITY

CONDITONS TO AVOID : High and freezing temperatures.  
STABILITY : Stable  
MATERIALS TO AVOID : Oxidizers and explosives  
HAZARDOUS DECOMPOSITION : If involved in a fire, it may emit noxious and toxic  
PRODUCTS fumes.

### 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : High concentrations of mist may be irritant to the upper respiratory tract. Reactive dyes, of which this one type, have been associated with respiratory sensitization.  
: 2,2'-oxydiethanol  
Oral LD50 13,300-23,700 mg/kg (mouse)  
Oral LD50 12,565-15,600 mg/kg (rat)

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Oral LD50 4,400-26,900 mg/kg (rabbit)  
Dermal LD50 11,890 mg/kg (rabbit)

EYE IRRITATION : Unlikely to cause eye irritation.  
SKIN IRRITATION : Unlikely to cause skin irritation.  
SENSITIZATION : It is not a skin sensitizer in animal tests.  
Unlikely to cause skin sensitization.  
MUTAGENICITY : Not available  
CARCINOGENICITY : It is unlikely to present a carcinogenic hazard to man.

### 12. ECOLOGICAL INFORMATION

ECOTOXICITY : Expected to be of low toxicity to fish, based on a consideration of the components.  
: 2,2'-oxydiethanol  
EC50 2,700 (mg/l) (7-d)(Scenedesmus quadricauda)  
EC50 >10,000 (mg/l) (24-h)( Daphnia magna)  
LC50 >5,000 (mg/l) (24-h)(Carassius auratus)  
LC50 >32,000 (mg/l) (96-h)( Gambusia affinis)  
LC50 75,200 (mg/l) (96-h)( Pimephales promelas)

PERSISTENCE AND DEGRADABILITY : Not available

BIOACCUMULATIVE POTENTIAL : Octanol/water partition coefficient  
(2,2'-oxydiethanol) log Pow: -1.98

RESULTS OF PBT ASSESSMENT : Not available

OTHER ADVERSE EFFECTS : Not available

### 13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with national and local requirements.  
Do not dump this product into sewers, on the ground or into any body of water.

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### 14. TRANSPORT INFORMATIONS

Not regulated as a Hazardous Material  
Check a thing without a leak in a container.  
Perform prevention of collapse of cargo surely.

### 15. REGULATORY INFORMATION

Not classified as dangerous preparation under Council Directive 1999/45/EC

### 16. OTHER INFORMATION

From clause 3

Symbol letters : Xi Irritant  
Xn Harmful  
Risk phrase : 22 Harmful if swallowed.  
36 Irritating to eyes.  
43 May cause sensitization by skin contact.

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#### Revision history

Version	Date	Content
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