

# MATERIAL SAFETY DATA SHEET

## SECTION I

MANUFACTURER'S NAME: RISO KAGAKU CORPORATION  
 EMERGENCY TELEPHONE NUMBER: 508-777-7377  
 TELEPHONE NUMBER FOR INFORMATION: 508-777-7377 RISO, Inc., Danvers, MA

ADDRESS: 2-20-15 SHINBASHI, MINATOKU, TOKYO, 105, JAPAN

DATE PREPARED: Dec. 21, 1991  
 SIGNATURE OF PREPARER: *[Handwritten Signature]*

TRADE NAME AND SYNONYMS: RISOGRAPH INK (RC)  
 CHEMICAL NAME AND SYNONYMS: Water/Oil-type Emulsion Ink for Duplicator

32, 424

## SECTION II - Hazardous Ingredients/Identity Information

RISO KAGAKU CORPORATION considers the formulation of this RC Ink a Trade Secret. Release of the formulation will be made under a non-disclosure agreement.

All Hazardous and carcinogenic materials, contained in the RC Ink, as defined by OSHA regulations are described below.

### Hazardous Components

(Specific Identity; Common Name(s))	CAS No.	Hazard Classification, OSHA(PEL), ACGIH(TWA)	%
* Mineral Oil (Ink Oil)	64742-55-8, 64742-56-9	Carcinogenic (IARC)	10%
* Mineral Oil (Motor Oil)	64742-18-3, 64742-44-5	Carcinogenic (IARC)	3%
* Mineral Oil (aliphatic hydrocarbon)	64742-47-8	Combustible Fluid	4%
* Glycerol (1,2,3-Propanetriol)	56-81-5	PEL 15 mg/m <sup>3</sup> , TWA 10 mg/m <sup>3</sup> (as total dust)	
* Carbon Black (in Oil of Ink)	1333-86-4	PEL 3.5 mg/m <sup>3</sup> , TWA 3.5 mg/m <sup>3</sup>	

- \* refer to NOC MSDS (Attached)
- \* refer to NOC MSDS (Attached)
- \* refer to EXXON MSDS on EXXSOL D80 (Attached)
- \* The Glycerol is in a water-phase of emulsion and does not disperse in the air.
- \* The Carbon Black is in a paste form and does not disperse in the air.

## SECTION III - Physical/Chemical Characteristics

Boiling Point: Not Applicable  
 Note: The lowest boiling point is water. (212° F/100° C)  
 Specific Gravity (H<sub>2</sub>O = 1): 1.00 - 1.02

Vapor Pressure (mm Hg): Not determined  
 Melting point: Not Applicable

Vapor Density (AIR = 1): Not Applicable  
 Evaporation Rate: (Butyl Acetate = 1) Not Applicable

Solubility in Water: Negligible

Appearance and Odor: Colored extremely viscous liquid with slight odor.

## SECTION IV - Fire and Explosion Hazard Data

Flash Point: Not established (JIS K2255 Cleveland Tester)	Flammable Limits: None	LEL Not Applicable	UEL Not Applicable
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Extinguishing Media: CO<sub>2</sub>, Dry chemical form, Water fog or spray

Special Fire Fighting Procedures:  
Ink will not act as a source of ignition, but might disperse in a fire.

Unusual Fire and Explosion Hazards: None

## SECTION V - Reactive Data

Stability      Unstable \_\_\_\_\_      Conditions to Avoid: \_\_\_\_\_  
                  Stable        X  

Incompatibility (Materials to Avoid): Strong oxidizing agents

Hazardous Decomposition or Byproducts: CO on incomplete combustion

Hazardous                      May Occur \_\_\_\_\_      Conditions to Avoid: \_\_\_\_\_  
Polymerization:              Will Not Occur   X  

## SECTION VI - Health Hazard Data

Route(s) of Entry:                      Inhalation? Yes                      Skin? Yes                      Ingestion? Yes

Health Hazards (Acute and Chronic): EXXSOL D80 Mineral oil contained in ink

Refer to Attached MSDS

Carcinogenicity:                      NTP? No      IARC Monographs? Yes      OSHA Regulated? No  
Mineral oil (Ink Oil and Motor Oil) is listed in IARC Monographs SUPPLEMENT 7(1987).  
Mineral oil (aliphatic hydrocarbon) EXXSOL D80

Signs and Symptoms of Exposure: Refer to Attached NOC MSDS and EXXSOL MSDS

Medical Conditions Generally Aggravated by Exposure: Refer to Attached MSDS

Emergency and First Aid Procedures: Refer to Attached MSDS

3 SECTION VII - Precautions for Safe Handling and Storing

Steps to be taken in case material is released or spilled:

Spills should be wiped up with cloth or paper.

Waste Disposal Method:

Material of Ink bottle is Polypropylene (PP). Dispose in accordance with State or Local law.

Controlled burning (small quantities).

Contact local industrial waste disposal company for disposal (large quantities).

Precautions to be taken in handling and storing:

None. Store ink under the bottled condition.

Recommended storage temperature: 41-86° F (5-30° C)

Other Precautions: None

SECTION VIII - Control Measures

Respiratory Protection (Specify Type):

Not necessary

Ventilation

Local Exhaust:

Desirable

Special:

None

Mechanical (General): Desirable

Other:

None

Protective Gloves: Not normally required.

Eye protection: Not normally required.

Other Protective Clothing or Equipment: Not normally required.

Work/Hygenic Practices: None