



MATERIAL SAFETY DATA SHEET

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DATE PREPARED: 10/25/2004
MSDS No.: CRI000U-02

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : RISOGRAPH CR INK <See separate section>

MANUFACTURER

NAME: RISO KAGAKU CORPORATION

ADDRESS: 5-34-7 SHIBA, MINATO-KU, TOKYO, 108 - 8385, JAPAN

TELEPHONE NUMBER: 81 (3) 5441 - 6611

DISTRIBUTOR

NAME: RISO INC. (SIGNATURE:)

ADDRESS: 300 ROSEWOOD DRIVE SUITE 210, DANVERS MA 01923 U.S.A.

TELEPHONE NUMBER: (978) 777 - 7377

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE: Mixture (Preparation)

CHEMICAL NATURE: Water-in-Oil-type emulsion

COMPONENTS: <See separate section>

Section 3 - HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

EYE: May cause slight irritating.

SKIN: May cause slight irritating.

INHALATION: Vapour or mist in unusually high concentrations generated from heating this ink, or as from exposure in poorly ventilated areas, may cause irritation of the nose and throat, headache, and nausea.

INGESTION: May cause abdominal discomfort, nausea.

Section 4 – FIRST-AID MEASURES

EYE: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SKIN: After contact with skin, wash immediately with plenty of water using a mild soap.

INHALATION: If you feel unwell, move from the contamination immediately to fresh air and seek medical advice.

INGESTION: If swallowed, do not induce vomiting and seek medical advice.

Section 5 – FIRE-FIGHTING MEASURES

FLASH POINT: Can not be established

AUTOIGNITION TEMPERATURE: $\geq 400^{\circ}\text{C}$

EXPLOSION PROPERTIES: Not applicable

EXTINGUISHING MEDIA: Water, CO₂, foam, dry chemical powder, dry sand

SPECIFIC HAZARDS WITH REGARD TO FIRE-FIGHTING MEASURES:

This ink does not act as a source of ignition, but might burn if involved in a fire.

HAZARDOUS COMBUSTION PRODUCTS:

CO, CO₂, smoke

Section 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Ventilate the area until material is completely picked up.
ENVIRONMENTAL PRECAUTIONS: Do not empty into the drains.
METHOD OF CLEANING UP: Shovel up, then wipe up with cloth or paper.

Section 7 – HANDLING AND STORAGE

HANDLING:
TECHNICAL MEASURES: Use only in the well-ventilated areas.
SAFE HANDLING ADVICE: Avoid contact with skin. Use only with cartridge (bottle).
STORAGE:
STORAGE CONDITIONS: Store at 5 - 35 °C and protect from sunlight.
PACKAGING MATERIAL: Only original cartridge (bottle).

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING MEASURES: Good general ventilation should be sufficient for most conditions.
EXPOSURE GUIDELINES: <See separate section>
PERSONAL PROTECTIVE EQUIPMENT:
RESPIRATORY PROTECTION : Not normally required
HAND PROTECTION: Recommend the use of gloves in case of contact with skin.
EYE PROTECTION: Not normally required
SKIN AND BODY PROTECTION : Not normally required

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Paste
ODOR: Slight petroleum odor
PH: Not applicable
BOILING POINT: $\geq 100\text{ }^{\circ}\text{C}$
MELTING POINT: $\leq 0\text{ }^{\circ}\text{C}$
OXIDISING PROPERTIES: Not applicable
DENSITY: 1.00 - 1.12
WATER SOLUBILITY: Negligible

Section 10 – STABILITY AND REACTIVITY

STABILITY: This product is considered a stable material under normal storage and handling conditions.
CONDITION TO AVOID: Avoid exposure to high temperatures.
MATERIALS TO AVOID: Strong oxidising agents
HAZARDOUS DECOMPOSITION PRODUCTS:
None



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Section 11 – TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY:	LD50 >= 5000mg/kg (rat)
ACUTE EYE IRRITATION:	May cause slight irritating.
ACUTE SKIN IRRITATION:	May cause slight irritating. P.I.I. <= 2.0
MUTAGENICITY:	Negative in the Ames test
SKIN SENSITISATION:	Frequent or prolonged contact may cause skin sensitisation
CARCINOGENICITY:	Carbon black is listed group 2B (possibly carcinogenic to humans) in IARC Monograph, 65. (However, IARC Monograph, 65 also indicates "exposures to carbon black in the use of printing ink, rubber or paint are negligible.") Petroleum solvent listed group 3 in IARC Monograph, 33, 45.

**These information are based on toxicity data for similar materials and ingredients.*

Section 12 – ECOLOGICAL INFORMATION

No data available

Section 13 – DISPOSAL CONSIDERATIONS

METHOD OF DISPOSAL:	Burn in an adequate incinerator or bury in landfill in accordance with all applicable regulations. Any disposal practice must be in compliance with local, state and federal laws and regulations. Material of ink-cartridge (bottle) are polypropylene (PP) and high-density polyethylene (HDPE).
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Section 14 – TRANSPORT INFORMATION

RID/ADR:	No classification available
ADNR:	No classification available
IMDG CODE:	No classification available
ICAO/IATA-DGR:	No classification available
UN NUMBER:	No classification available

Section 15 – REGULATORY INFORMATION

OSHA Hazard Communication Standard, 29CFR 1910.1200 : This product is not considered hazardous under this standard.
TSCA (Toxic Substance Control Act) : All chemical substances in these products are listed in TSCA chemical substance inventory.
NTP (National Toxicology Program). This product contains no chemical substances classed carcinogenicity.
ACGIH (American Conference of Governmental Industrial Hygienists) : This product contains no chemical substances classed carcinogenicity.
IARC (International Agency for Research on Cancer) : Carbon black and petroleum solvent (known as mineral oil) are listed in IARC Monograph (refer to Section 11).
WHMIS (Workplace Hazardous Materials Information System) This product is not considered a controlled product under this System.

Section 16 - OTHER INFORMATION

NFPA RATING (U.S.A.):			
Health = 0	Flammability = 1	Reactivity = 0	

The information herein is given in good faith, but no warranty, express or implies, is made. Please consult RISO INC. for further information.

RISOGRAPH CR INK



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Section 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME (ITEM CODE): RISOGRAPH CR INK / U BLACK (S-2488)

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS:

	CAS No.	wt%
Petroleum solvent	64742-55-8	< 10
	64742-47-8	---
Glycerol	56-81-5	< 10
Carbon black (pigment)	1333-86-4	< 10
Organic pigment(s)	Registered	---
Alkyd resin	Registered	---
Water	7732-18-5	---

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS No.	ACGIH TLV	OSHA PEL
Petroleum solvent	64742-55-8	5 mg/m ³ *1	5 mg/m ³ *1
Glycerol	56-81-5	10 mg/m ³	15 mg/m ³
Carbon black (pigment)	1333-86-4	3.5 mg/m ³	3.5 mg/m ³

*1 : as mineral oil mists



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Section 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAMES (ITEM CODE): RISOGRAPH CR INK BROWN (S-2492)

Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS:

	CAS No.	wt%
Petroleum solvent	64742-46-7	< 5
	64742-47-8	---
Soybean oil	8001-22-7	< 6
Glycerol	56-81-5	< 10
Carbon black (pigment)	1333-86-4	< 1
Organic pigment(s)	Registered	---
Alkyd resin	Registered	---
Water	7732-18-5	---

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS No.	ACGIH TLV	OSHA PEL
Petroleum solvent	64742-46-7	5 mg/m ³ *1	5 mg/m ³ *1
Glycerol	56-81-5	10 mg/m ³	15 mg/m ³
Carbon black (pigment)	1333-86-4	3.5 mg/m ³	3.5 mg/m ³

*1 : as mineral oil mists



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Section 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAMES (ITEM CODE): RISOGRAPH CR INK RED (S-2489)
RISOGRAPH CR INK BLUE (S-2490)
RISOGRAPH CR INK GREEN (S-2491)
RISOGRAPH CR INK YELLOW (S-2493)
RISOGRAPH CR INK BRIGHT RED (S-2494)

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS:

	CAS No.	wt%
Petroleum solvent	64742-46-7	< 5
	64742-47-8	---
Soybean oil	8001-22-7	< 6
Glycerol	56-81-5	< 10
Organic pigment(s)	Registered	---
Alkyd resin	Registered	---
Water	7732-18-5	---

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS No.	ACGIH TLV	OSHA PEL
Petroleum solvent	64742-46-7	5 mg/m ³ *1	5 mg/m ³ *1
Glycerol	56-81-5	10 mg/m ³	15 mg/m ³

*1 : as mineral oil mists