



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Print Cartridge GC21 Black
Product Number: 405532
Chemical Name: mixture
CAS Number: 0-00-0

Company Identification

Ricoh Corporation
5 Dedrick Place
West Caldwell, NJ 07006 USA
1-973-882-2000 or 1-973-882-5218 (For product information)
1-800-336-6737 (For emergencies)

GENERAL USE:

GX3000, GX3050N, GX5050N.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
CARBON BLACK	< 15.0 %	1333-86-4
GLYCOL	< 30.0 %	Confidential
GLYCERIN	< 10.0 %	56-81-5
WATER	45.0 - 85.0 %	7732-18-5

EXPOSURE GUIDELINES:

Carbon Black

OSHA PEL: 3.5 mg/m³
ACGIH TWA: 3.5 mg/m³

Glycerin

OSHA PEL: 15 (as mist) mg/m³
ACGIH TWA: 10 (as mist) mg/m³

3. HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTES:

Inhalation, skin, ingestion.

CARCINOGENICITY:

Carbon Black was reclassified as a Group 2B by IARC in 1996 based on the result of only the inhalation study in rats. However there was not observed the incidence of tumors on the test results on dermal or oral studies. Also 2-years inhalation study using a typical toner containing carbon black showed no association between toner exposure and animal tumors.

MEDICAL CONDITION AGGRAVATED BY LONG-TERM EXPOSURE:

Not available.

CHRONIC EFFECTS:

No data is available on this product.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

When ink goes into eye, please wash with running water promptly. Please consult with a doctor, when abnormal.

SKIN CONTACT FIRST AID:

When ink is attached to the skin, please wash away with water or soapsuds immediately.

INHALATION FIRST AID:

Not applicable.

INGESTION FIRST AID:

When ink is swallowed, please let me give in and breathe out a deep salt solution, and consult with a doctor.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

BURNING RATE:

Not applicable.

EXTINGUISHING MEDIA:

No special fire protecting method is required.

FIRE FIGHTING INSTRUCTIONS:

No special fire protecting method is required.

6. ACCIDENTAL RELEASE MEASURES

SPILL / LEAK PROCEDURES:

If spilled, wipe up with paper or cloth.

MISCELLANEOUS:

Remove contaminated clothing and launder or dry-clean before wearing. Keep product out of sewers and watercourses.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Keep out of reach of children.

STORAGE REQUIREMENTS:

Store inside warehouse to avoid direct sun. Avoid storage above 35 degrees centigrade.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION:

None needed under normal use condition.

RESPIRATORY PROTECTION:

None required under normal conditions of use.

PROTECTIVE CLOTHING / EQUIPMENT:

None required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Liquid
COLOR:	Black
ODOR:	Not odor
BOILING POINT:	Not available C
VAPOR PRESSURE:	Not available psia
VAPOR DENSITY:	Not available (Air = 1)
SOLUBILITY IN WATER:	Soluble
MELTING/FREEZING POINT:	Not applicable C
PH:	8-10
% VOLATILES:	70 %
VISCOSITY:	8
EVAPORATION RATE:	Not available

10. STABILITY AND REACTIVITY

POLYMERIZATION:

None.

CONDITIONS TO AVOID:

Not applicable in normal use.

HAZARDOUS DECOMPOSITION PRODUCTS:

will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:

>5000mg/kg (Rat).

CARCINOGENICITY:

In 1996 IARC reevaluated Carbon Black as a Group 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association

between toner exposure and tumor development in rats.

MUTAGENICITY:

Negative (Ames test).

TERATOGENICITY:

Not available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DEGRADATION:

Not known.

MISCELLANEOUS:

Not known in bioaccumulation.

13. DISPOSAL CONSIDERATIONS

DISPOSAL:

Used product should be disposed of in an environmentally appropriate manner.

14. TRANSPORT INFORMATION

PRODUCT LABEL: Print Cartridge GC21 Black

MISCELLANEOUS:

Avoid direct sunlight. Do not keep this over 35 degrees centigrade.

15. REGULATORY INFORMATION

No information available.

16. OTHER INFORMATION

HMIS Rating:

Health - 1
Flammability - 0
Reactivity - 0

APPROVED BY:	David Huelbig
TITLE:	Safety Engineer
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