

1. Identification

Product identifier InfoPrint 3000 Developer
Other means of identification
Product code 1402718
Synonyms Company Chemical No.: 901244040
Recommended use Developer for use in InfoPrint printers.
Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information

Company name Ricoh Company Ltd.
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Emergency phone number 1-760-476-3961; Access: 333114

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement None.

Precautionary statement

Prevention Observe good industrial hygiene practices.
Response Get medical attention/advice if you feel unwell.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) Fine particles may form explosive mixtures with air.

3. Composition/information on ingredients**Mixtures**

Chemical name	CAS number	%
Manganese ferrite black spinel	68186-94-7	90-100
Styrene acrylic copolymer	25987-66-0	4-9
Carbon black	1333-86-4	0.45-2.3
Silicone resin	123127-08-2	0.1-1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation If symptomatic, move to fresh air. Get medical attention if any discomfort continues.
Skin contact Wash skin with soap and water. Should dermal irritation or dermal sensitization occur, seek medical attention.
Eye contact Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort continues.

Most important symptoms/effects, acute and delayed Not available.

5. Fire-fighting measures

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media None.

Specific hazards arising from the chemical Dust may form explosive mixture with air. Fire or high temperatures create: Carbon oxides. Manganese oxides. Silicon oxides. Unidentified organic compounds.

Special protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions Avoid dust formation.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear necessary protective equipment.

Methods and materials for containment and cleaning up Sweep or scoop up and remove. Avoid dust formation. Avoid sparks and prevent accumulation of electrostatic charges.

Environmental precautions Avoid discharge into water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Wear necessary protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in closed original container in a dry place. Keep away from heat, sparks and open flame. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m ³
Manganese ferrite black spinel (CAS 68186-94-7)	Ceiling	5 mg/m ³

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.
Manganese ferrite black spinel (CAS 68186-94-7)	TWA	0.1 mg/m ³	Inhalable fraction.
		0.02 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	0.1 mg/m ³	
Manganese ferrite black spinel (CAS 68186-94-7)	STEL	3 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection If significant eye exposure is anticipated, the use of chemical safety goggles is recommended.

Skin protection	
Hand protection	Wear protective gloves. If significant skin exposure is anticipated, appropriate gloves should be worn to prevent skin contact with this substance. Suitable gloves can be recommended by the glove supplier.
Other	No protection is ordinarily required under normal conditions of use.
Respiratory protection	No protection is ordinarily required under normal conditions of use and with adequate ventilation. During dust-raising work: If ventilation is insufficient, suitable respiratory protection must be provided.
Thermal hazards	Not available.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder.
Color	Black.
Odor	Faint.
Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	> 2732 °F (> 1500 °C)
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	5 (Water = 1)
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable under normal temperature conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, sparks, flames.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Unidentified organic compounds.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not available.
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Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Symptoms related to the physical, chemical and toxicological characteristics	May cause discomfort if swallowed.
Information on toxicological effects	
Acute toxicity	As with exposure to high concentrations of any dust, irritation of the respiratory tract may occur. Persons with certain pre-existing upper respiratory disorders, such as bronchitis or asthma have an increased risk of irritation.
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	May cause temporary eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	No data available.
Skin sensitization	Not known to Ricoh Production Print Solutions Company as a dermal irritant or dermal sensitizer.
Germ cell mutagenicity	No data available.
Carcinogenicity	Pure carbon black, a minor component of this product, is not classified as hazardous when bound in toner polymers.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Chronic effects	Chronic exposure may cause potential risk of irreversible pulmonary effects. Chronic exposure is highly unlikely when this product is used as intended.

12. Ecological information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	Not available.
Mobility in general	The product is insoluble in water.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Do not discharge into drains or the environment, please contact your local municipality / waste handler for disposal requirements.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Dispose in accordance with all applicable regulations.
Contaminated packaging	Not available.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Manganese ferrite black spinel (CAS 68186-94-7) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Manganese ferrite black spinel	68186-94-7	90-100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Manganese ferrite black spinel (CAS 68186-94-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Carbon black (CAS 1333-86-4)

US. New Jersey Worker and Community Right-to-Know Act

Carbon black (CAS 1333-86-4)
Manganese ferrite black spinel (CAS 68186-94-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon black (CAS 1333-86-4)

US. Rhode Island RTK

Manganese ferrite black spinel (CAS 68186-94-7)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Carbon black (CAS 1333-86-4)

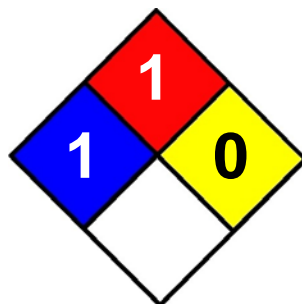
16. Other information, including date of preparation or last revision

Issue date 27-March-2014

Revision date -

Version # 01

NFPA Ratings



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