



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Cyan Toner for FS-C1020MFP, C1020MFP+ (TK-150C)  
Manufacturer  
Name : KYOCERA Document Solutions Inc.  
Address : 2-28, 1-Chome, Tamatsukuri, Chuo-ku, Osaka, Japan, 540-8585  
Supplier  
Name : KYOCERA Document Solutions Europe B.V.  
Address : Bloemlaan 4, 2132 NP Hoofddorp, The Netherlands  
Telephone Number : +31(0)20-6540000

### 2. COMPOSITION/ INFORMATION ON INGREDIENTS

Substance or preparation ; Preparation

Ingredients ;

Chemical Name(Common Name)	CAS No.	Weight %
Polyester Resin 1	Confidential	40-60
Polyester Resin 2	Confidential	30-50
Organic Pigment	147-14-8	1-10
Wax	Confidential	1-5
Silica	Confidential	1-5
Organic Salt	Confidential	1-5

This product does not contain any of the following substances as ingredients .

And if it contains any impurities, it does not exceed any of the thresholds of RoHS.

Cadmium, Hexavalent Chromium, Mercury, Lead, Polybrominated biphenyls (PBB),  
Polybrominated diphenyl ethers (PBDE).

### 3. HAZARDS IDENTIFICATION

The Most Important Hazards

Adverse Human Health Effects

There are no significant hazards expected with intended use.

#### Environmental Effects

There are no significant hazards expected with intended use.

#### Physical and Chemical Hazards

There are no significant hazards expected with intended use.

#### Specific Hazards

Dust explosion (like most finely grained organic powders)

#### Main Symptoms

##### Acute Inhalation Toxicity

Exposure to excessive amount of dust may cause physical irritation to respiratory tract .

##### Acute Oral Toxicity

Low acute toxicity in animal experiment.

##### Acute Eye Irritation

May cause slight transient irritation.

##### Acute Skin Irritation

May be non-irritant.

##### Sensitization

From test no apparent significant hazards are expected . (Only few cases reported on incidental allergy-related conjunctivitis or dermatitis.)

##### Chronic Effect

Slight pulmonary fibrosis has been reported in rats upon chronic inhalation exposure to a toner at 4mg/m<sup>3</sup> every day for 2 years. No pulmonary change was found at 1mg/m<sup>3</sup>. These findings show that exposure to excessive amounts of powder may cause damage to lungs . However, normal use and handling of this product as intended, does not result in inhalation of excessive amounts of powder.

##### Carcinogenicity

This product does not contain the substances classified as carcinogenic by NTP , IARC or OSHA.

##### The Classification of The Chemical Product

This preparation is not classified as dangerous according to Directive 1999/45/EC.

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## 4. FIRST-AID MEASURES

#### Inhalation

Remove from exposure into fresh air and rinse mouth with water. Seek medical advice.

#### Skin Contact

Wash thoroughly with soapy water.

#### Eye Contact

Flush with a large amount of water until particles are removed. Seek medical advice.

#### Ingestion

Drink several glasses of water to dilute ingested toner. Seek medical advice.

#### Notes to a physician

Not applicable

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## 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

CO<sub>2</sub>, dry chemicals, foam or water.

#### Extinguishing Media to Avoid

Not applicable.

#### Specific Hazards

Can form explosive dust-air mixtures when finely dispersed in air.

#### Specific Method

No special fire protecting method is required. Sprinkling or fire extinguishers can be used.

#### Protection of Fire-fighters

Wear gloves, glasses, a mask if necessary.

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## 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions

Do not breathe in dust.

#### Environment Precautions

Do not flush into sewers or watercourses.

#### Methods for Cleaning Up

Confirm there is no source of fire and if there is a source, remove it. Sweep up spilled powder slowly and clean remainder with wet cloth.

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## 7. HANDLING AND STORAGE

#### Handling

##### Technical Measures/Precautions

Not applicable

##### Safe Handling Advice

Do not handle in areas where there is wind or draught, this may cause dust to get into eyes.

Avoid breathing in dust.

#### Storage

##### Technical Measures

Not applicable

#### Storage Conditions

Keep out of reach of children.

Store in dry, well-ventilated area, to maintain quality the temperature should not exceed 35 degrees centigrade for a long time. Avoid direct sunlight.

#### Packaging Material

Not applicable

#### Specific Use(s)

Image formation in printing machines or copiers.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Technical Measures

Use adequate ventilation. None required with intended use.

### Control Parameters

USA OSHA PEL (TWA)	: 15mg/m <sup>3</sup> (Total dust)	5.0mg/m <sup>3</sup> (Respirable fraction)
ACGIH TLV (TWA)	: 10mg/m <sup>3</sup> (Inhalable fraction)	3.0mg/m <sup>3</sup> (Respirable fraction)
DFG MAK	: 4.0mg/m <sup>3</sup> (Total dust)	1.5mg/m <sup>3</sup> (Respirable fraction)

### Personal Protection

#### Respiratory Protections

None required in normal use. If the limit of exposure concentration is exceeded, use authorized respirator.

#### Hand Protection

Use vinyl or rubber gloves if necessary.

#### Eye Protection

Put on goggles if necessary.

#### Skin and Body Protection

Wear chemical-resistant apron or other impervious clothing if necessary.

#### Hygiene Measures

Wash hands after handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Physical State	: Solid
Form	: Powder
Colour	: Cyan
Odour	: Slightly plastic odour

Information

pH : Not applicable

Specific Temperatures/Temperature Ranges at Which Changes in Physical State Occur

Boiling Point (degrees centigrade) : Not applicable

Melting Point (degrees centigrade) : (Softening point) Approx.110

Decomposition Temperature (degrees centigrade) : Not available

Flash Point (degrees centigrade) : Not applicable

Explosion Properties (degrees centigrade) : This product is considered a nonexplosive material under normal use.

Vapor Pressure (Pa) : Not applicable

Vapor Density(AIR=1) : Not applicable

Density (g/cm<sup>3</sup>) : Approx.1.2                      Measuring Temp (degrees centigrade) : 25

Solubility

Water Solubility (g/L) : Insoluble

Chloroform Solubility (g/L) : Slightly soluble

Octanol/Water Partition Coefficient : Not available

Other Information

Flammability : Not flammable

Viscosity (Pa·s) : Not applicable

Volatile (%) : 0.2 or below

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## 10. STABILITY AND REACTIVITY

Stability

Stable

Hazardous Reaction

Dust explosion, like most finely grained organic powders.

Conditions to Avoid

Not applicable in normal use.

Materials to Avoid

Not applicable in normal use.

Hazardous Decomposition Products

Decomposition products will not occur.

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## 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Acute Oral Toxicity (LD50) :

5000 or over (Rat) (Based on other product test results of similar ingredients.)

Acute Dermal Toxicity :

Not available

Acute Inhalation Toxicity :

Not available

Local effects

Acute Skin Irritation(PII) :

1.0 or below (Rabbit) (Based on other product test results of similar ingredients.)

Acute Eye Irritation :

Not available (Ingredients are not classified as dangerous according to Directive 67/548/EEC.)

Sensitization

Acute Allergenic Effects :

0 % (Marmot) (Based on other product test results of similar ingredients.)

Specific Effects

Carcinogenicity :

This product does not contain the carcinogenic substances which are listed on NTP , IARC and OSHA.

Mutagenicity : Negative (Ames test)

Reproduction Toxicity : Does not contain substances listed as hazardous to reproductive health .

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## 12. ECOLOGICAL INFORMATION

Mobility : No data are available on any adverse effects on the environment .

Persistence/Degradability : Not available

Bioaccumulation : Not available

Ecotoxicity

Acute Toxicity for Fish (LC50) : Not classified as toxic (EU Directive 1999/45/EC)

Acute Toxicity for Daphnia (EC50) : Not classified as toxic (EU Directive 1999/45/EC)

Algae Inhibition Test (IC50) : Not classified as toxic (EU Directive 1999/45/EC)

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## 13. DISPOSAL CONSIDERATIONS

General information:

Dispose of waste and residues in accordance with local authority requirements .

Disposal methods:

Disposal recommendations are based on material as supplied. Disposal must be in

accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

Precautions:

Do not throw the toner cartridge or toner into an open flame. Hot toner may scatter and cause burns or other damage.

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## 14. TRANSPORT INFORMATION

### International Regulations

#### Land Transport

RID/ADR : Not applicable  
DOT 49 CFR : Not applicable  
ADNR : Not applicable

#### Sea Transport

IMDG Code : Not applicable

#### Air Transport

ICAO-TI/IATA-DGR : Not applicable  
The UN Classification Number : Not applicable

### Specific Precautionary Transport Measures and conditions

Avoid direct sunlight in quality.

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## 15. REGULATORY INFORMATION

### Regulations

#### EU Information

Information on the label (1999/45/EC and 67/548/EEC)

Symbols & Indications : Not required  
R-Phrase : Not required  
S-Phrase : Not required  
Special Precautions under 1999/45/EC Annex V : Not required

#### 76/769/EEC

This product complies with applicable rules and regulations under 76/769/EEC.

#### 304/2003/EC

Not regulated

#### US Information

Information on the label : Not required

TSCA (Toxic Substances Control Act) :

This toner complies with all applicable rules and regulations under TSCA.

SARA Title III

313 Reportable Ingredients : Not regulated

California Proposition 65 : Not regulated

Canada Information

WHMIS Controlled product : Not a controlled product

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## 16. OTHER INFORMATION

NFPA Hazard Rating: National Fire Protection Agency (USA)

Health ; 1, Flammability ; 1, Reactivity ; 0

HMIS Rating : The National Paint and Coating Association (USA)

Health ; 1, Flammability ; 1, Reactivity ; 0

Literature References :

ANSI Z400.1-1993

ISO 11014-1

IARC (1996) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds", Lyon, pp149-261

H. Muhle, B. Bellman, O. Creutzenberg, C. Dasenbrock, H. Emst, R. Kilpper, J.C. MacKenzie, P. Morrow, U. Mohr, S. Takenaka and R. Mermelstein(1991) "Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats"

Fundamental and Applied Toxicology 17, pp 280-299

IARC (2008) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans , Vol.93"

NIOSH CURRENT INTELLIGENCE BULLETIN "Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide DRAFT"

ACGIH-TLV : Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices

OSHA Z-Tables : US Department of Labor, 29CFR Part 1910 , Tables Z-1, Z-2, and Z-3

NTP (USA) : US Department of Health and Human Services National Toxicology Program  
Annual Report on Carcinogens

DFG-MAK : DFG List of MAK and BAT Value

Symbol (EC) : EU Directive 67/548/EEC



91/155/ EEC : EU Directive 91/155/ EEC  
1999/45/EC Annex V : EU Directive 1999/45/EC  
76/769/ EEC : EU Directive 76/769/ EEC  
EC 304/2003 : Regulation (EC) No 304/2003 of the European Parliament and of the  
Council of 28 January 2003 concerning the export and import of  
dangerous chemicals

WHMIS Controlled product : Canada Workplace Hazardous Information System

OELs-TWA (Australia) : Guidance Note on the Interpretation of Exposure Standards for  
Atmospheric Contaminants in the Occupational Environment [NOHSC:  
3008 (1995)]

Abbreviations :

OSHA PEL PEL (Permissible Exposure Limit) under Occupational Safety and Health Act  
ACGIH-TLV TLV (Threshold Limit Values) under American Conference of Governmental  
Industrial Hygienists  
DFG-MAK MAK (Maximale Arbeitsplatz Konzentrationen) by Deutsche Forschungs  
Gemeinschaft  
RoHS Restriction of the use of certain Hazardous Substances in Electrical and  
Electronic Equipment  
TWA Time Weighted Average  
IARC International Agency for Research on Cancer  
NTP National Toxicology Program  
WHMIS Workplace Hazardous Information System  
NOHSC National Occupational Health and Safety Commission Act 1985

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