SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Black Developer for ECOSYS P7040cdn

Manufacturer

Name : KYOCERA Document Solutions Inc.

Address : 2-28, 1-Chome, Tamatsukuri, Chuo-ku Osaka 540-8585, Japan

Supplier

Name : KYOCERA Document Solutions Australia Pty. Ltd.

Address : Level 3, 6-10 Talavera Road,North Ryde,New South Wales 2113, Australia

Telephone Number : +61-2-9888-9999

Emergency Telephone: 131 126 (24 hours) Poison Information Centre.

2. HAZARDS IDENTIFICATION

Most Important Hazards : None

Specific Hazards : None

Other Information on Hazards: Potential Health Effects

Ingestion : Ingestion is not applicable route of entry for intended use.

Inhalation : Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in inhalation of excessive dusts.

Eye Contact : May cause transient eye irritation.

Skin Contact : Unlikely to cause skin irritation.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Substance or preparation ; Preparation

Ingredients ;

Chemical Name(Common Name)	CAS No.	Weight %
Ferrite (Ferrite including manganese)	66402-68-4	85-95 (as Mn:15-20)
Polyester resin	Confidential	5-10
Carbon black	1333-86-4	< 1

4. FIRST-AID MEASURES

Inhalation : Remove from exposure to fresh air and gargle with plenty of water. Consult a doctor in case of such symptoms as coughing.

Skin Contact : Wash with soap and water.

Eye Contact : Flush with water immediately and see a doctor if irritating.

Ingestion : Rinse out the mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

5. FIRE-FIGHTING MEASURES

Extinguishing Media : Water (Sprinkle with Water), Foam, Powder, CO_2 or Dry Chemical Extinguisher

Fire-Fighting Procedure : Pay attention not to blow away developer. Drain water off around and decrease the atmosphere temperature to extinguish the fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions : Avoid inhalation, ingestion, eye and skin contact in case of accidental developer release.

Environmental Precautions: Do not release into drains and surface water.

Method for Cleaning Up : Gather the released developer not to blow away and wipe up with a wet cloth.

7. HANDLING AND STORAGE

Handling : Never open the developer unit.

Storage : Keep the developer unit tightly closed and store in a cool, dry and dark place keeping away from fire. Keep away from children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters<Reference Data>:

ACGIH $TLV_{(2)}$-TWA : Inhalable fraction 10mg/m^3, Respirable fraction 3mg/m^3
Manganese compounds(Ferrite component) 0.2mg/m^3 (as Mn)
Carbon black 3.5mg/m^3

OSHA $PEL_{(3)}$-TWA : Total dust 15mg/m^3, Respirable fraction 5mg/m^3
Manganese compounds(Ferrite component) 5mg/m^3 (Ceiling)(as Mn)
Carbon black 3.5mg/m^3

Protective Equipment : Respiratory protection, eye protection, hand protection, skin and body protection are not required under normal use.

Ventilation : Ventilator is not required under normal use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: Solid Form: Fine powder Color: Black Odor: Odorless

pH : Not applicable

Melting Point : No data available

Explosion Properties : Dust explosion is improbable under normal use.
Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.

Density : 3.5-5.0g/cm^3

Solubility : Almost insoluble in water

10. STABILITY AND REACTIVITY

Stability/ Reactivity : Stable under normal use.

Hazardous Decomposition Products: None

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : (rat)LD_{50}>2,000mg/kg
(Estimated from other products containing same materials.) [Toner]
(rat)LD_{50}>2,500mg/kg
(Estimated from the data of constituent materials.) [Carrier]

Acute dermal toxicity : (rat)LD_{50}>2,000mg/kg
(Estimated from Acute oral toxicity for same product.) [Toner]
(rat)LD_{50}>2,000mg/kg
(Estimated from the data of constituent materials.) [Carrier]

Acute inhalation toxicity : (rat)LC_{50}(4hr)>5.0mg/l
(Estimated from other products containing same materials.) [Toner]

Acute eye irritation : (rabbit) Minimal irritant
(Estimated from other products containing same materials.) [Toner]

Acute skin irritation : (rabbit)Non-irritant
(Estimated from other products containing same materials.) [Toner]
(rabbit)Non-irritant
(Estimated from the data of constituent materials.) [Carrier]

Skin sensitisation : (mouse)Non-sensitiser

(Estimated from other products containing same materials.) [Toner]
(guinea pig)Non-sensitiser
(Estimated from the data of constituent materials.) [Carrier]

Mutagenicity : Ames Test is Negative. [Toner]
Ames Test is Negative.
(Estimated from the data of constituent materials.) [Carrier]

Information of Ingredients: No mutagen, according to MAK, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

Reproductive Toxicity:

Information of Ingredients: No reproductive toxicant, according to MAK, California Proposition 65, TRGS905 and (EC)No 1272/2008 AnnexVI Table3.2.

Carcinogenicity :

Information of Ingredients: No carcinogen or potential carcinogen, (except carbon black) according to IARC, Japan Association on Industrial Health, ACGIH, EPA,OSHA,NTP, MAK, California Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI Table3.2.

The IARC reevaluated carbon black as a Group 2B carcinogen (possibly carcinogenic to humans) as the result of inhalation exposure test in rats. But, oral/skin test does not show carcinogenicity. (4) The evaluation of carbon black is based upon the development of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung.

The studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-years cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats. (1)

Chronic effects:

In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration(16mg/m^3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle(4mg/m^3) exposure group. (1) But no pulmonary change was reported in the lowest(1mg/m^3) exposure group, the most relevant level to potential human exposures.

Other information : None

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Do not incinerate developer and developer unit. Dangerous sparks may cause burn.

Any disposal practice should be done under conditions which meet local, state and federal laws and regulations relating to waste (contact local or state environmental agency for specific rules).

14. TRANSPORT INFORMATION

UN No. : None
UN Shipping Name : None
UN Classification : None
UN Packing Group : None
Special Precautions : None

15. REGULATORY INFORMATION

EU Information

Label information according to the Directives 67/548/EEC and 1999/45/EC.

Symbol and Indication : Not required
R-Phrase : Not required
S-Phrase : Not required
Special markings : Not required
Hazardous ingredients for labeling: None

US Information

All ingredients in this product comply with order under TSCA.

16. OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

<Reference>

(1) ・Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats H.Muhle et.al
Fundamental and Applied Toxicology 17.280-299(1991)
・Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic Inhalation Exposure in Rats B.Bellmann
Fundamental and Applied Toxicology 17.300-313(1991)
(2) ACGIH TLV (Threshold Limit Values)
(3) OSHA PEL (Permissible Exposure Limits)
(4) IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,

Vol.93

• ISO 11014-1 Safety data sheet for chemical products

<Abbreviation>

ACGIH：American Conference of Governmental Industrial Hygienists
2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physica Agents and Biological Exposure Indices)

OSHA：Occupational Safety and Health Administration (29 CFR Part1910 Subpart Z)

TWA：Time Weighted Average

IARC：International Agency for Research on Cancer
（IARC Monographs on the Evaluations of Carcinogenic Risks to Humans）

EPA: Environmental Protection Agency (Integrated Risk Information System) (USA)

NTP: National Toxicology Program (Report on Carcinogens) (USA)

MAK: Maximale Arbeitsplatz-Konzentrationen (List of MAK and BAT Values 2011)
(DFG: Deutsche Forschungsgemeinschaft)

Proposition 65: California, Safe Drinking Water and Toxic Enforcement Act of 1986

TRGS905: Technische Regeln für Gefahrstoffe (Deutsche)

(EC)No.1272/2008 AnnexVI Table3.2: Regulation(EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) AnnexVI Table3.2

UN: United Nations

TSCA: Toxic Substances Control Act (USA)