

Product Name : BLACK DRUM UNIT SP C352 ( OPC ) SDS Number : 408223  
 Date Prepared : 09/12/2016 Date Modified : 10/08/2017 Date : 17/09/2018



## Safety Data Sheet (ISO form)

### 1.Product and Company Identification

Product Name :BLACK DRUM UNIT SP C352 ( OPC )  
 General Use :The image formation of printing machine or copier.  
 SDS Number :408223  
 Company Name :Ricoh Company,Ltd.  
 Department :Safety Engineering Department, Quality Management Division  
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### 2.Compo r egulation (EC) No 1272/2008 sition/Information on Ingredients

Substance or Preparation  
 Preparation

Chemical Nature

Ingredients	CAS.No.	Contents(%)
Al Substrate	7429-90-5	>97
Charge Transport Material	Confidential	<1
Binder Resin	Confidential	<1
Organic Pigment	Confidential	<1
Metal oxide	Confidential	<1

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

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

There are no significant hazards expected with intended use.

Main Symptoms

Acute Inhalation Toxicity

Under normal use conditions, there is no possibility to inhale the particle of photosensitive component.

Acute Oral Toxicity

Under normal use conditions, there is no possibility to swallow the particle of photosensitive component.

Acute Eye Irritation

Under normal use conditions, there is no possibility to enter into the eye.

Acute Skin Irritation

May be non-irritant.

Sensitization

May be non-sensitization.

Chronic Effect

Under normal use conditions, there is no possibility to inhale the particle of photosensitive component.

Carcinogenicity

This product has no danger of carcinogenicity. Because, as for this product, is a drum form, and is strongly adhered to an aluminum substrate; the particle of photosensitive component needs not to be released.

The Classification of The Chemical Product

Not applicable

### 4.First-Aid Measures

Inhalation

Not applicable

Skin Contact

In case of contact with skin, there is no problem.

Eye Contact

Not applicable

Ingestion

Not applicable

Notes to a physician

Not applicable

## 5.Fire-Fighting Measures

Extinguishing Media

CO2,dry chemicals,foam or water.

Extinguishing Media to Avoid

Not applicable.

Specific Hazards

Not applicable

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.

## 6.Accidental Release Measures

Personal Precautions

Not applicable

Environment Precautions

Not applicable

Methods for Cleaning Up

Not applicable

## 7.Handling and Storage

Handling

Technical Measures/Precautions

Not applicable

Safe Handling Advice

For the sake of quality, do not touch surface of photoreceptor.

Storage

Technical Measures

Not applicable

Storage Conditions

Keep out of reach of children.

For the sake of quality, store in dry and well-ventilated area it should not exceed 35 degrees centigrade for a long time and avoid direct sunlight.

Packaging Material

Not applicable

Specific Use(s)

Image formation in printing machines or copiers.

## 8.Exposure Controls/Personal Protection

Technical Measures

Use adequate ventilation. None required with intended use.

### Control Parameters

USA OSHA PEL (TWA) : Not applicable

ACGIH TLV (TWA) : Not applicable

DFG MAK : Not applicable

Personal Protection

Respiratory Protections

None required in normal use.

Hand Protection

None required in normal use.

Eye Protection

None required in normal use.

Skin and Body Protection

None required in normal use.

Hygiene Measures

Wash hands after handling.

## 9.Physical and Chemical Properties

Appearance

Physical State : Solid

Form : Drum

Colour : Deep blue

Odour : No 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) : Not applicable

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/cm3) : 2.5-3.5 (as aluminum) Measuring Temp (degrees centigrade) : -

Solubility

Water Solubility (g/L) : Insoluble

Other solvent Solubility (g/L) : Not available Measuring Temp (degrees centigrade) : -

Octanol/Water Partition Coefficient

Not available

Other Information

Flammability : Not applicable

Viscosity (Pa · s) : Not applicable

Volatile (%) : Below 0.1

## 10.Stability and Reactivity

Stability

Stable

Hazardous Reaction

There is no significant hazardous reaction expected with intended use.

Conditions to Avoid

Not applicable in normal use.

Materials to Avoid

Not applicable in normal use.

Hazardous Decomposition Products

Decomposition products will not occur.

## 11.Toxicological Information

Acute Toxicity

Acute Oral Toxicity (LD50) :

Not available

Acute Dermal Toxicity :

Not available

Acute Inhalation Toxicity :

Not applicable

Local effects

Acute Skin Irritation(PII) :

Not available

Acute Eye Irritation :

Not applicable

Sensitization

Acute Allergenic Effects :

Not available

Specific Effects

Carcinogenicity :

This product has no danger of carcinogenicity. Because, as for this product, is a drum form, and is strongly adhered to an aluminum substrate; the particle of photosensitive component needs not to be released.

Mutagenicity : Negative (Ames test)

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

## 12.Ecological Information

Mobility : No data are available on the adverse effect one environment.

Persistence/Degradability : Not available

Bioaccumulation : Not known in bioaccumulation.

Ecotoxicity

Acute Toxicity for Fish (LC50) : Not available

Acute Toxicity for Daphnia (EC50) : Not available

Algae Inhibition Test (IC50) : Not available

## 13.Disposal Consideration

General information:

Used drum should be disposed in an environmentally appropriate manner and accordance with governmental regulations.

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:

Not applicable

## 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

Class : **Not applicable**  
 Specific Precautionary Transport Measures and conditions  
**Keep it in cool and dry storage and avoid direct sun for quality.**

## 15.Regulatory Information

### Regulations

#### EU Information

Information on the label (Regulation (EC) No 1272/2008)

Symbols & : **Not required**

Indications

R-Phrase : **Not required**

S-Phrase : **Not required**

Special Precautions under Regulation (EC) No 1272/2008 Annex II : **Not required**

Regulation (EC) No 1907/2006 annex XVII

**This product complies with applicable rules and regulations under Regulation (EC) No 1907/2006 annex XVII.**

Regulation (EC) No 689/2008

#### US Information

Information on the label : **Not required**

TSCA (Toxic Substances Control Act) :

**This product 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**

## 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)	: Regulation (EC)No.1272/2008
91/155/ EEC	: EU Directive 91/155/ EEC
1272/2008	: Regulation (EC) No 1272/2008
CLP (EC)No.1272/2008	: Regulation (EC)No.1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures,amending and repealing Directive Regulation (EC) No 1272/2008, and amending Regulation (EC)No. 1907/2006
Regulation (EC) No 689/2008	: EU. Regulation EC No. 689/2008, Annex 1, concerning the export and import of dangerous chemicals, OJ (L60) 5,10 March 2010[replaces Reg.304/2003]
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
REACH	(EC)No.1907/2006:Council Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals
SVHC	Substances of Very High Concern
ECHA	The European Chemicals Agency
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	nternational 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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