Product Name : PRINT CARTRIDGE SP 6430A (Black toner) SDS Number : 407507 Date Prepared : 05/20/2014 Date Modified : 08/01/2014 Date Printed: 08/29/2016

RICOH

Safety Data Sheet

- (a) Product identifier used on the label : PRINT CARTRIDGE SP 6430A (Black toner) Product Name
- (b) Other means of identification SDS Number : 407507
- (c) Recommended use of the chemical and restrictions on use General Use : The Image Formation of Printing Machine or Copier
- (d) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party Company Name : Ricoh USA, Inc. Department : Environmental Sustainability and Product Compliance : 5 Dedrick Place West Caldwell, NJ 07006 USA Address

(e) Emergency phone number.

Telephone Number : 1-973-882-2000 or 1-973-882-5218 (For product information) or 1-800-336-6737 (for emergencies) : 1-973-882-3959 **Telefax Number** : environmentinfo@ricoh-usa.com

Section2 : Hazards Identification

Classification

E-mail

EXPLOSIVES		
	Not Applicable	
	Not Applicable	
FLAMMABLE AEROSOLS	Not Applicable	
OXIDIZING GASES	Not Applicable	
GASES UNDER PRESSURE	Not Applicable	
FLAMMABLE LIQUIDS	Not Applicable	
FLAMMABLE SOLIDS	Classification not possible	
SELF-REACTIVE SUBSTANCES AND		
MIXTURES	Not Applicable	
PYROPHORIC LIQUIDS	Not Applicable	
PYROPHORIC SOLIDS	Classification not possible	
SELF-HEATING SUBSTANCES AND	Oleasification not possible	
MIXTURES	Classification not possible	
SUBSTANCES AND MIXTURES,		
WHICH ON CONTACT WITH WATER,	Classification not possible	
EMIT FLAMMABLE GASES		
OXIDIZING LIQUIDS	Not Applicable	
OXIDIZING SOLIDS	Classification not possible	
ORGANIC PEROXIDES	Classification not possible	
CORROSIVE TO METALS	Classification not possible	
ACUTE TOXICITY(ORAL)	Not Classified	
ACUTE TOXICITY(DERMAL)	Classification not possible	
ACUTE TOXICITY	Net Applicable	
(INHALATION – GAS)	Not Applicable	
ACUTE TOXICITY	Not Applicable	
INFIALATION - VAPOUR)		
	Classification not possible	
INHALATION - DUST AND MIST)		
	Not Classified	
SERIOUS EYE DAMAGE/EYE	Classification not possible	
RRITATION		
	Classification not possible	
SKIN SENSITIZER	Not Classified	
GERM CELL MUTAGENICITY	Classification not possible	
CARCINOGENICITY	Classification not possible	
	LAMMABLE AEROSOLS DXIDIZING GASES GASES UNDER PRESSURE CLAMMABLE LIQUIDS CLAMMABLE SOLIDS SELF-REACTIVE SUBSTANCES AND MIXTURES PYROPHORIC LIQUIDS PYROPHORIC SOLIDS SELF-HEATING SUBSTANCES AND MIXTURES SUBSTANCES AND MIXTURES, WHICH ON CONTACT WITH WATER, EMIT FLAMMABLE GASES DXIDIZING LIQUIDS DXIDIZING SOLIDS DRGANIC PEROXIDES CORROSIVE TO METALS ACUTE TOXICITY(ORAL) ACUTE TOXICITY INHALATION - GAS) ACUTE TOXICITY INHALATION - VAPOUR) ACUTE TOXICITY INHALATION - DUST AND MIST) SKIN CORROSION/IRRITATION SERIOUS EYE DAMAGE/EYE RRITATION RESPIRATORY SENSITIZER SKIN SENSITIZER SERIOUS EYE LAMAGENICITY	

	TOXIC TO REPRODUCTION	Classification not possible
	TARGET ORGAN SYSTEMIC	Classification not possible
	EXPOSURE	
	TARGET ORGAN SYSTEMIC TOXICITY FOLLOWING REPEAT EXPOSURE	Classification not possible
	ASPIRATION HAZARD	Classification not possible
	ACUTE HAZARDS TO THE AQUATIC ENVIRONMENT	Classification not possible
ENVIRONMENTSL HAZARD(S)	CHRONIC HAZARDS TO THE AQUATIC ENVIRONMENT	Classification not possible
	HAZARDOUS TO THE OZONE LAYER	Classification not possible

Label element

Pictogram:	
Signal word(s):	not applicable
Hazard statement(s):	not applicable
Precautionary statement(s) 【Prevention】	not applicable
【Response】	not applicable
[Storage]	not applicable
【Disposal】	not applicable

Specific Hazards

Dust explosion (like most finely grained organic powders)

Section3	:	Composition,	Informati	on	on	Ingredients
000010110		00111000101011		U	U	

Ingredients CAS No./Chemical name	Contents (%)
Confidential	60-90
Polyester Resin	
Confidential	1-20
Wax	
Confidential	1-20
Styrene Acrylic Polymer	
Confidential	<10
Silica	

Section4 : First Aid Measures

(a) Necessary measures

Inhalation :

Remove from exposure to 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 particle is removed. Seek medical advice.

Ingestion :

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

- (b) Most important symptoms/effects, acute and delayed. Not available
- (c) Indication of immediate medical attention and special treatment needed. Immediate edical Attention :

Immediate medical attention is not required.

Section5 : Fire Fighting Measures		
(a) Suitable (and unsuitable) extinguishing media. Extinguishing Media to Avoid : Not applicable		
(b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products). Specific Hazards : Can form explosive dust-air mixtures when finely dispersed in air.		
(c) Special protective equipment and precautions for fire-fighters. Fire-Fighting Instructions / Specific Method : No special fire protecting method is required. Sprinkling or fire extinguishers can be used.		
Protection of Firefighters : Wear gloves, glasses, a mask if necessary.		
Section6 : Accidental Release Measures		
 (a) Personal precautions, protective equipment, and emergency procedures. Personal Precautions : Do not breathe in dust. Environment Precautions : Do not flush into sewers or watercourses. (b) Methods and materials for containment and cleaning up. Methods for Cleaning Up : Fine powder may form explosive dust-air mixture. 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. If a vacuum cleaner is used, a dust explosion-proof type must be chosen. 		
Section7 : Handling and Storage		
 (a) Precautions for safe handling. 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. 		
(b) Conditions for safe storage, including any incompatibilities. 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°C for a long time. Avoid direct sunlight.		
Packaging material Not applicable		
Specific Use(s) : Image formation in printing machines or copiers.		
Section8 : Exposure Controls/Personal Protection		

https://www2.notes.ricoh.co.jp/ecology/msds.nsf/MSDSSearchforName_RAC/492579... 8/29/2016

(a) OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit **Control Parameters** Exposure Limit Value (I) USA OSHA PEL : 15mg/m3 (Total dust) 5.0mg/m3 (Respirable fraction) (TWA) ACGIH TLV (TWA) : 10mg/m3 (Inhalable fraction) 3.0mg/m3 (Respirable fraction) : 4.0mg/m3 (Total dust) 1.5mg/m3 (Respirable fraction) DFG MAK **Personal Protection** (b) Appropriate engineering controls. Technical measures : Use adequate ventilation. None required with intended use. (c) Individual protection measures, such as personal protective equipment. Respiratory Protections (Specify Type) None required in normal use. If the limit of exposure concentration is exceeded, use authorised respirator. Eye Protection Put on goggles if necessary. **Protective Gloves** Use vinyl or rubber gloves if necessary. Protective Clothing or Equipment Wear chemical-resistant apron or other impervious clothing if necessary. **Hygiene Measures** Wash hands after handling

			<u> </u>	
Sectiony .	Phys	ical and	Chemical	Properties

(a)Appearance (physical state, color, etc.)

Physical state Form Colour	: Solid : Powder : Black
(b)Odor	: Sligthly plastic odor
(c)Odor threshold	: Not available
(d)pH	: Not applicable
(e)Melting point/fre (degrees centigrad	ezing point : (Softening point) Approx.100 de)
(f)Initial boiling poin	t and boiling range : Not applicable
(g)Flash point	: Not applicable
(h)Evaporation Rate	e (Butyl Acetate = 1) : Not applicable
(i)Flammability (soli	d, gas) : Not flammable
(j)Upper/lower flam limits	mability or explosive : Upper Not available Lower Not available
(k)Vapor Pressure ((Pa) : Not applicable
(I)Vapor Density (A	IR=1) : Not applicable
(m)Relative density	: Approx.1.2
(n)Solubility(ies)	

Water Solubility (g/L): InsolubleChloroform Solubility (g/L): Slightly soluble

(o)Partition coefficient: n-octanol/water : Not available

(p)Auto-ignition temperature : Not available

(q)Decomposition temperature : Not available (degrees centigrade)

(r)Viscosity (Pa•s) : Not applicable

Section10 : Stability and Reactivity

(a)Reactivity

Hazardous Reaction : Dust explosion, like most finely grained organic powders.

(b)Chemical stability : Stable

Teratogenic

(c)Possibility of hazardous reactions : Not available

(d)Condition to Avoid : Not applicable in normal use.

(e)Incompatible materials : Not applicable in normal use condition.

(f)Hazardous decomposition products : Decomposition products will not occur.

Section11 : Toxicological Information

- (a)Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact) ingestion, skin, inhalation, eye contact
- (b)Symptoms related to the physical, chemical and toxicological characteristics Not available

: Not available.

(c)Delayed and immediate effects and also chronic effects from short- and long-term exposure Not available

```
Acute Toxicity

Acute Oral Toxicity (LD50) :

5000 or over [mg/kg] (Rat) (Based on other Ricoh products test results of similar ingredients.)

Acute Dermal Toxicity :

Not available

Acute Inhalation Toxicity :

Not applicable

Local effects

Acute Skin Irritation(PII) :

1.0 or below (Rabbit) (Based on other Ricoh products test results of similar ingredients.)
```

Acute Eye Irritation : Non-irritant (Rabbit) (Based on other Ricoh products test results of similar ingredients.)

Sensitization Acute Allergenic Effects : Non-skinsensitive (Mouse) (Based on other Ricoh products test results of similar ingredients.) Mutagenicity : Negative (Ames test) Reproduction Toxicity : Does not contain substances listed as hazardous to reproductive health.

https://www2.notes.ricoh.co.jp/ecology/msds.nsf/MSDSSearchforName_RAC/492579... 8/29/2016

(d)Numerical measures of toxicity (such as acute toxicity estimates) Not available

(e)Whether the hazardous chemical is listed in the National Toxicology Program (NTP)

Report on Carcinogens (latest edition) or has been found to be a potential carcinogen

in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA. Carbon black contained in this product is classified to Group 2B of IARC as the result of inhalation test in use of rat.

But oral/skin test does not show carcinogenicity.

The toner containing carbon black did not show carcinogenicity in chronic inhalation exposure test in use of rat.

Section12 : Ecological Information

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

Persistence/Degradability : Not available

Bioaccumulation : Not available

Ecotoxicity

Acute Toxicity for Fish (LC50)	: Not classified as toxic (EU Directive 1999/45/EC)mg/I/96hr
Acute Toxicity for Daphnia (EC50)	: Not classified as toxic (EU Directive 1999/45/EC)mg/I/48hr
Algae Inhibition Test (IC50)	: Not classified as toxic (EU Directive 1999/45/EC)mg/I/72hr

Section13 : Disposal Consideration

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. The hot toner may scatter and cause burns or other damage.

Section14 : Transport Information

International Regulations

Land Transport RID/ADR DOT 49 CFR ADNR	: Not applicable : Not applicable : Not applicable
Sea Transport IMDG Code	: Not applicable
Air Transport ICAO-TI/IATA-DGR UN Number Class	: Not applicable : Not applicable : Not applicable

Specific Precautionary Transport Measures and Conditions Avoid direct sunlight in quality.

Section15 : Regulatory Information

Regulations

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 (Superfund Amendments and Reauthorization Act) Title III 313 Reportable Ingredients : Not regulated

California Proposition 65 Not regulated

Canada Information

WHMIS Controlled product : Not a controlled product

EU Information

Information on the label (EU Regulation (EC)No. 1272/2008) Symbol & Indication : Not required Hazard Statement : Not required Precautionary statement : Not required

Special Precautions underEU Regulation 1272/2008 Annex II : Not required

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

Section16 : Other Information

Explanation of Hazardous Materials Identification System [HMIS]& National Fire Protection Association [NFPA] Hazard Rating Systems:

Both the HMIS and NFPA systems use number from "0" to "4" to show the degree of hazard in an uncontrolled situation:

0=Minimum Hazard 1=Slight Hazard 2=Moderate Hazard 3=Serious Hazard 4=Severe Hazard Colors may also be used in both systems:

Blue=Health Hazard **Red**=Fire Hazard **Yellow**=Reactivity Hazard **White**=Indicate a special hazard HMIS will specify any Personal Protective Equipment reqired [PPE], NFPA will specify OX(oxidizer), Acid(acid), ALK(Alkali), COR(Corrosive), W(use no water), xx(Radioactive).

Literature References :

ANSI Z400.1-1993 ISO 11014-1 Commission Directive 91/155/EEC 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,pp280–299

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(GER): DFG List of MAK and BAT Value
Symbol (EC)	: Regulation (EC)No.1272/2008
91/155/ EEC	: EU Directive 91/155/ EEC
1999/45/EC	: EU Directive 1999/45/EC
CLP (EC)No.1272/2008	: Regulation (EC)No.1272/2008 of the European Parliamant and of the
	Council of 16 December 2008 on classification, labelling and packaging

https://www2.notes.ricoh.co.jp/ecology/msds.nsf/MSDSSearchforName_RAC/492579... 8/29/2016

			of substances and mixtures,amending and repealing Directive 67/548/EEC and 1999/45/EC, and amending Regulation (EC)No.	
EC 304/2003 WHMIS Controlled product		2003	1907/2006 : 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	
		Controlled	: Canada Workplace Hazardous Information System	
	OELs-T	WA (Australia)	: Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 3008 (1995)]	
Abbreviations :				
OSHA PEL ACGIH-TLV		PEL (Permissible Exposure Limit) under Occupational Safety and Health Act 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		
			Chemicals Agency	
			e Arbeitsplatz Konzentrationen) by Deutsche Forschungs Gemeinschaft the use of certain Hazardous Substances in Electrical and Electronic	
Rono		Equipment		
TWA		Time Weighted Average		
IARC		International Agency for Research on Cancer		
NTP WHMIS	2	National Toxicology Program Workplace Hazardous Information System		
NOHSC		National Occupational Health and Safety Commission Act 1985		
			· · ·	

Disclaimer(S) :

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Ricoh USA, Inc.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

Ricoh USA, Inc assumes no legal responsibility for use or reliance upon this information.