

Material Safety Data Sheet (ANSI form)

Section 1 : Chemical Product and Company Identification

- (a) Product identifier used on the label
Product Name : RICOH TONER CARTRIDGE TYPE 120 BLACK (OPC)
- (b) Other means of identification
MSDS Number : 407000
- (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 : Ricoh Americas Corporation
Name
Department : Safety Engineering Center, Quality Assurance Center, Quality Management
Division
Address : 5 Dedrick Place, West Caldwell, NJ 07006
- (e) Emergency phone number.
Telephone : 1-973-882-2000 or 1-973-882-5218 (For product information) or
Number 1-800-336-6737 (For emergencies)
Telefax Number : 1-973-882-3959
E-mail : environmentinfo@ricoh-usa.com

Section2 : Hazards Identification

Classification

PHYSICAL HAZARD(S)	EXPLOSIVES	Not Applicable
	FLAMMABLE GASES	Not Applicable
	FLAMMABLE AEROSOLS	Not Applicable
	OXIDIZING GASES	Not Applicable
	GASES UNDER PRESSURE	Not Applicable
	FLAMMABLE LIQUIDS	Not Applicable
	FLAMMABLE SOLIDS	Not Applicable
	SELF-REACTIVE SUBSTANCES AND MIXTURES	Not Applicable
	PYROPHORIC LIQUIDS	Not Applicable
	PYROPHORIC SOLIDS	Not Applicable
	SELF-HEATING SUBSTANCES AND MIXTURES	Not Applicable
	SUBSTANCES AND MIXTURES, WHICH ON CONTACT WITH WATER, EMIT FLAMMABLE GASES	Not Applicable
	OXIDIZING LIQUIDS	Not Applicable
	OXIDIZING SOLIDS	Not Applicable
	ORGANIC PEROXIDES	Not Applicable
CORROSIVE TO METALS	Not Applicable	
HEALTH HAZARD(S)	ACUTE TOXICITY(ORAL)	Not Applicable
	ACUTE TOXICITY(DERMAL)	Not Applicable
	ACUTE TOXICITY (INHALATION - GAS)	Not Applicable
	ACUTE TOXICITY (INHALATION - VAPOUR)	Not Applicable
	ACUTE TOXICITY (INHALATION - DUST AND MIST)	Not Applicable
	SKIN CORROSION/IRRITATION	Not Applicable
	SERIOUS EYE DAMAGE/EYE IRRITATION	Not Applicable
	RESPIRATORY SENSITIZER	Not Applicable
	SKIN SENSITIZER	Not Applicable
	GERM CELL MUTAGENICITY	Not Applicable
	CARCINOGENICITY	Not Applicable
	TOXIC TO REPRODUCTION	Not Applicable
	TARGET ORGAN SYSTEMIC TOXICITY FOLLOWING SINGLE EXPOSURE	Not Applicable
TARGET ORGAN SYSTEMIC TOXICITY FOLLOWING REPEAT EXPOSURE	Not Applicable	
ASPIRATION HAZARD	Not Applicable	
ENVIRONMENTSL HAZARD(S)	ACUTE HAZARDS TO THE AQUATIC ENVIRONMENT	Not Applicable
	CHRONIC HAZARDS TO THE AQUATIC ENVIRONMENT	Not Applicable
	HAZARDOUS TO THE OZONE LAYER	Not Applicable

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

There are no significant hazards expected with intended use.

Section3 : Composition, Information on Ingredients

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

Section4 : First Aid Measures

- (a) Necessary measures
 - Inhalation :
 - Not applicable
 - Skin Contact :
 - In case of contact with skin, there is no problem.
 - Eye Contact :
 - Not applicable
 - Ingestion :
 - Not applicable
- (b) Most important symptoms/effects, acute and delayed.
 - Not available
- (c) Indication of immediate medical attention and special treatment needed.
 - Immediate Medical 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 :
 - Not applicable
- (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 :
 - Not applicable
 - Environment Precautions :
 - Not applicable
- (b) Methods and materials for containment and cleaning up.
 - Methods for Cleaning Up :
 - Not applicable

Section7 : Handling and Storage

- (a) Precautions for safe handling.
 - Handling :
 - Technical Measures/Precautions
 - Not applicable
 - Safe Handling Advice
 - For the sake of quality, do not touch surface of photoreceptor.
- (b) Conditions for safe storage, including any incompatibilities.
 - 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.

Section8 : Exposure Controls/Personal Protection

(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: Not applicable
(TWA)

ACGIH TLV (TWA) : Not applicable

DFG MAK : Not applicable

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.

Eye Protection

None required in normal use.

Protective Gloves

None required in normal use.

Protective Clothing or Equipment

None required in normal use.

Hygiene Measures

Wash hands after handling.

Section9 : Physical and Chemical Properties

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

Physical state : Solid

Form : Drum

Colour : Navy blue

(b) Odor : No odor

(c) Odor threshold : Not available

(d) pH : Not applicable

(e) Melting point/freezing point : Not applicable
(degrees centigrade)

(f) Initial boiling point and boiling range : Not applicable

(g) Flash point : Not applicable

(h) Evaporation Rate (Butyl Acetate = : Not applicable
1)

(i) Flammability (solid, : Not applicable
gas)

(j) Upper/lower flammability or explosive : Upper Not applicable Lower Not applicable
limits

(k) Vapor Pressure (Pa) : Not applicable

(l) Vapor Density (AIR=1) : Not applicable

(m) Relative density : 2.5-3.5 (as aluminum)

(n) Solubility(ies)

Water Solubility (g/L) : Insoluble

Other solvent Solubility (g/L) : Not available

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

(p) Auto-ignition temperature : Not applicable

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

(r) Viscosity (Pa·s) : Not applicable

Section10 : Stability and Reactivity

- (a)Reactivity
Hazardous Reaction :
There is no significant hazardous reaction expected with intended use.
- (b)Chemical stability :
Stable
- (c)Possibility of hazardous reactions :
Not available
- (d)Condition to Avoid :
Not applicable in normal use.
- (e)Incompatible materials :
Not applicable in normal use.
- (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)
Not available
- (b)Symptoms related to the physical, chemical and toxicological characteristics
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) :

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

Mutagenicity : Negative (Based on other product test results of similar ingredients.)

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

Teratogenic : Not available

- (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.
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.

Section12 : 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

Section13 : 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

Section14 : 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
UN 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.

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 (1999/45/EC and 67/548/EEC)

Symbol & Indication : 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

Section 16 : 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 required [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) : 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

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 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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