SAFETY DATA SHEET

Version #: 02
Issue date: 05-July-2021
Revision date: 28-March-2022
Supersedes date: 05-July-2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture	Print Cartridge MP 305 (Black toner)
Registration number	-
Synonyms	None.
SDS No.	842142

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Image formation in printing machines or copiers dry toner
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Distributor	RICOH Schweiz AG
Address	Hertistrasse 2 CH - 8304 Wallisellen, Switzerland
Phone	41 844 360 360
E-mail	tqm@ricoh.ch
Importer	Ricoh Europe SCM B.V.
Address	Blankenweg 24, 4612 RC Bergen op Zoom, The Netherlands
E-mail	reu.compliance@ricoh-europe.com
Manufacturer	Ricoh Co., Ltd.
Address	Chome 3-6 Nakamagome, Ôta, Tokyo, 143-8555, Japan
E-mail	msdsinfo@nts.ricoh.co.jp

1.4 Urgent call phone number	145

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Wax
Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Not available.
Response	Not available.
Storage	Not available.
Disposal	Not available.

Supplemental label information	None.
2.3. Other hazards	None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Polyester Resin	80 - 100	Confidential -	Confidential	-	
Classification: -					
Carbon Black	<15	1333-86-4 215-609-9	01-2119384822-32-xxxx	-	
Classification: -					
Wax	<10	Confidential -	Confidential	-	
Classification: -					
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter = 10 µm]	<1	13463-67-7 236-675-5	01-2119489379-17-xxxx	022-006-002	
Classification: Carc. 2;H351					V,W

List of abbreviations and symbols that may be used above

Note V - If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.
Note W - It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to Regulation (EC) No 1272/2008, as amended.

Composition comments This product does not contain any of the following RoHS2 substances as ingredients. Cadmium, Hexavalent Chromium, Mercury, Lead, Polybrominated biphenyls (PBB), Polybrominated diphenyleters (PBDE), Phthalate esters (DEHP, BBP, DBP, and DIBP), SVHC (substances of very high concern: published by ECHA).

SECTION 4: First aid measures

General information Not available.

4.1. Description of first aid measures

Inhalation Move to fresh air. Get medical attention, if needed.

Skin contact Wash off with soap and plenty of water.

Eye contact Rinse with plenty of water. If eye irritation persists: Get medical advice/attention.

Ingestion Rinse mouth thoroughly. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed Not available.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media Water. Foam. Dry chemicals. Carbon dioxide (CO2).

Unsuitable extinguishing media Not available.

5.2. Special hazards arising from the substance or mixture Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear suitable protective equipment.

Special fire fighting procedures Not available.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Not available.

For emergency responders Not available.

6.2. Environmental precautions Do not discharge into drains, water courses or onto the ground. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up	Remove from the surface by skimming or with suitable absorbents. Collect dust using a vacuum cleaner equipped with HEPA filter.
6.4. Reference to other sections	Not available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
7.2. Conditions for safe storage, including any incompatibilities	Not available.
7.3. Specific end use(s)	Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter = 10 µm] (CAS 13463-67-7)	TWA	3 mg/m3	Respirable dust.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Not available.
Derived no effect levels (DNELs)	Not available.
Predicted no effect concentrations (PNECs)	Not available.

8.2. Exposure controls

Appropriate engineering controls	Not available.

Individual protection measures, such as personal protective equipment

General information	No special protective equipment required.
Eye/face protection	If necessary, Wear eye/face protection.If necessary,
Skin protection	
- Hand protection	If necessary, Wear suitable gloves.
- Other	Wear suitable coveralls to prevent exposure to the skin.
Respiratory protection	No personal respiratory protective equipment normally required.
Thermal hazards	Not available.
Hygiene measures	Wash hands after handling.
Environmental exposure controls	Not available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Form	Powder.
Colour	Black.
Odour	Sligthly plastic odour
Odour threshold	Not available
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	Not applicable
Flammability	Not available.
Flash point	Not applicable
Auto-ignition temperature	Not available.

Decomposition temperature	Not available
pH	Not applicable
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water) (log value)	Not available
Vapour pressure	Not applicable
Density and/or relative density	
Density	1,20 g/cm3
Vapour density	Not applicable
Particle characteristics	Not available.
9.2. Other information	
9.2.1. Information with regard to physical hazard classes	No relevant additional information available.
9.2.2. Other safety characteristics	Dust explosion (like most finely grained organic powders)
Evaporation rate	Not applicable
Flammability (temperature)	Not flammable
Softening point	100 °C (212 °F)
Viscosity	Not applicable
VOC	<= 0,2 %

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Dust explosive, but under the intended conditions of use, the probability of dust explosion is very low.
10.4. Conditions to avoid	None under normal conditions.
10.5. Incompatible materials	Not available.
10.6. Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

General information	Not available.
Information on likely routes of exposure	
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.
Symptoms	Not available.

11.1. Information on toxicological effects

Acute toxicity

Product	Species	Test Results
Print Cartridge MP 305 (Black toner)		
Acute		
Oral		
LD50	Rat	>= 5000 mg/kg

Skin corrosion/irritation

Irritation Corrosion - Skin: P.I.I. value		
Print Cartridge MP 305 (Black toner)		<= 1 Species: Rabbit Notes: Based on other product test results of similar ingredients.

Serious eye damage/eye irritation	Not available.
Respiratory sensitisation	Not available.
Skin sensitisation	

Skin Sensitisation

Print Cartridge MP 305 (Black toner)	0 % Species: Marmott Notes: Based on other product test results of similar ingredients.

Germ cell mutagenicity

Germ cell mutagenicity: Ames test

Print Cartridge MP 305 (Black toner)	Result: Negative Notes: Ames test

Carcinogenicity

Carbon black and titanium dioxide contained in this product are 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.
In the animal experiment with very high concentration of titanium dioxide (excessive burden of rat's lungs clearance mechanism (overload phenomenon)), the rat alone showed lung tumor.
Under a normal use practice, the concentration should be far lower than the above; and it is assumed that there is no such use.
Also, relation between respiratory disease and work exposure of titanium dioxide is not observed with epidemiological survey.

IARC Monographs. Overall Evaluation of Carcinogenicity

titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter = 10 µm] (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Mixture versus substance information Not available.

11.2. Information on other hazards

Endocrine disrupting properties Not available.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity This material is not expected to be harmful to aquatic life.

12.2. Persistence and degradability Not available.

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Endocrine disrupting properties Not available.

12.7. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Not available.

Contaminated packaging Not available.

EU waste code Not available.

Disposal methods/information Contract with a disposal operator licensed by the Law on Disposal and Cleaning.

Special precautions Dispose in accordance with all applicable regulations. Do not throw in contents or fire containing contents.
The contents will splash and cause burns.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Maritime transport in bulk according to IMO instruments Not available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

National regulations Not available.

Switzerland. Schedules 1A-3B on Substances Subject to ChKV, Regulation on the Control of Chemicals with Civilian and Military Use (ChKV)

Not listed.

15.2. Chemical safety assessment Not available.

SECTION 16: Other information

List of abbreviations Not available.

References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
HSDB® - Hazardous Substances Data Bank
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
JIS Z 7252:2014 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)
National Toxicology Program (NTP) Report on Carcinogens
US. IARC Monographs on Occupational Exposures to Chemical Agents

Information on evaluation method leading to the classification of mixture	Not available.
Full text of any statements, which are not written out in full under sections 2 to 15	H351 Suspected of causing cancer.
Revision information	Product and Company Identification: Alternate Trade Names Composition / Information on Ingredients: Ingredients SECTION 3: Composition/information on ingredients: Component information Exposure Controls / Personal Protection: OELs SECTION 8: Exposure controls/personal protection: - Other Physical & Chemical Properties: Multiple Properties Regulatory Information: Regulatory Information HazReg Data: Pacific Rim GHS: Classification
Training information	Not available.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.