

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 Black M C240

Registration number -

Synonyms None.

SDS No. 408451

Issue date 04-11-2021

Version number 01

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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard summary Not available.

2.2. Label elements

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

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
Paraffin Waxes And Hydrocarbon Waxes	>=10-25< =	8002-74-2 232-315-6	-	-	
Classification: -					
Carbon Black(Bound)	<=10	1333-86-4 215-609-9	-	-	
Classification: Carc. 2;H351, Aquatic Chronic 3;H412					

Composition comments This product does not contain any of the following RoHS2 substances as ingredients. Cadmium, Hexavalent Chromium, Mercury, Lead, Polybrominated biphenyls (PBB), Polybrominated diphenylethers (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 of the SDS 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

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	MAK	5 mg/m ³	Inhalable dust.
	STEL	10 mg/m ³	Inhalable dust.

Belgium. Exposure Limit Values

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	MAC	3,5 mg/m3	
	STEL	7 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	MAC	2 mg/m3	Fume.
	STEL	6 mg/m3	Fume.

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3,5 mg/m3	

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	10 mg/m3	Dust.

Denmark. Exposure Limit Values

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TLV	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TLV	2 mg/m3	Fume.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

Components	Type	Value	Form
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Vapor.

Finland. Workplace Exposure Limits

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	STEL	7 mg/m3	
	TWA	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	1 mg/m3	Fume.

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	VME	3,5 mg/m3	
Regulatory status: Indicative limit (VL)			
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	VME	2 mg/m3	Fume.
Regulatory status: Indicative limit (VL)			

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	STEL	7 mg/m3	
	TWA	3,5 mg/m3	

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	STEL	6 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable dust.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	STEL	6 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

Italy. Occupational Exposure Limits

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TLV	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TLV	2 mg/m3	Fume.

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	4 mg/m3	Inhalable fraction.
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Inhalable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3 mg/m3	Fume.
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	STEL	6 mg/m3	Fume.

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
	TWA	2 mg/m3	Fume.

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	2 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	STEL	6 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	TWA	5 mg/m3	Inhalable dusts and mists.
		1 mg/m3	Inhalable dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	TWA	2 mg/m3	Respirable fume.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Carbon Black(Bound) (CAS 1333-86-4)	STEL	7 mg/m3	
	TWA	3,5 mg/m3	
Paraffin Waxes And Hydrocarbon Waxes (CAS 8002-74-2)	STEL	6 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

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 Not normally needed.If necessary, Wear eye/face protection.

Skin protection

- Hand protection Wear suitable gloves.If necessary,

- Other Not normally needed.If necessary, 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 Solid.
Color Black
Odor Slightly plastic odour
Melting point/freezing point Not available.
Boiling point or initial boiling point and boiling range Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits
Flammability limit - lower (%) Not available.
Flammability limit - upper (%) Not available.
Flash point Not available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
pH Not available.
Solubility(ies)
Solubility (water) Not available.
Partition coefficient (n-octanol/water) Not available.
Vapor pressure Not available.
Vapor density Not available.
Relative density Not available.
Particle characteristics Not available.
Other safety characteristics Dust explosion (like most finely grained organic powders)

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 Black M C240		
Acute		
Inhalation		
<i>Dust and mist.</i>		
LC50	Rat	> 5000 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
Components	Species	Test Results

Carbon Black(Bound) (CAS 1333-86-4)

Acute

Oral

Rat

> 15400 mg/kg

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Respiratory sensitization Not available.

Skin sensitization Not available.

Germ cell mutagenicity

Germ cell mutagenicity: Ames test

Print Cartridge Black M C240

Result: Not mutagenic in 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.

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.

Product	Species	Test Results
Print Cartridge Black M C240		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia
		> 1000 mg/l, 24 hours
		> 1000 mg/l, 48 hours
Fish	LC50	Fish
		> 1000000 µg/l, 96 hours

Components	Species	Test Results
Carbon Black(Bound) (CAS 1333-86-4)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia
		37,563 mg/l, 48 hours
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 containers containing contents into fire. The contents will splash and cause burns.	

SECTION 14: Transport information

ADR

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
Hazard No. (ADR)	Not available.
Tunnel restriction code	Not available.
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

RID

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

ADN

14.1. UN number	Not available.
14.2. UN proper shipping name	Not available.
14.3. Transport hazard class(es)	
Class	Not available.
Subsidiary risk	-
14.4. Packing group	Not available.
14.5. Environmental hazards	No.

14.6. Special precautions for user Not available.

IATA

14.1. UN number Not available.

14.2. UN proper shipping name Not available.

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk -

14.4. Packing group Not available.

14.5. Environmental hazards No.

14.6. Special precautions for user Not available.

IMDG

14.1. UN number Not available.

14.2. UN proper shipping name Not available.

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk -

14.4. Packing group Not available.

14.5. Environmental hazards

Marine pollutant No.

EmS Not available.

14.6. Special precautions for user Not available.

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.

Authorizations

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.

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 H-statements not written out in full under Sections 2 to 15

H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

Revision information None.

Training information Not available.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.