

SAFETY DATA SHEET

Toner Powder (Cartridge) for

ES9466MFP Series

ES9476MFP Series

OKI DATA CORPORATION

NOTE:-A safety data sheet is not required for this product under Article 31 of REACH. This safety data sheet is provided on a voluntary basis

SAFETY DATA SHEET

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

1.1 Product identifier

Product name: Black toner powder (cartridge) for
ES9466MFP Series
ES9476MFP Series
(Toner powder name: T-FC505E-K)

Product description: Black Toner

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

Material uses: For electrophotographic printing systems

1.3 Details of the supplier of the safety data sheet

Manufacturer: OKI Data Corporation
3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 Japan
Tel: +81 27-328-6366 Fax: +81-27-328-6398

Supplier: OKI Europe Limited
Blays House, Wick Road, Egham, Surrey, TW20 0HJ, UK
Tel: +44 (0) 208 219 2190 Fax: +44 (0) 208 219 2199
e-mail: SDSQuestions@okieurope.com

1.4 Emergency telephone number

OKI Europe Limited: +44 (0) 208 219 2190
(Supported 09:00 to 17:00 UK Time, Monday to Friday
except Bank Holidays)

SECTION 2: Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity Oral:	Out of class
Acute toxicity Inhalation:	Out of class
Skin corrosion/irritation:	Out of class
Eye damage/eye irritation:	Out of class
Skin sensitization:	Out of class

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment - acute hazard: Out of class

(Note)

GHS classification without description: Not applicable/Out of classification/Not classifiable

SAFETY DATA SHEET

SECTION 3: Composition/information on ingredients

Substance/mixture: Mixture

Ingredient name	Content (%)	CAS No.
Polyester resin	80-90	TRADE SECRET
Carbon black	<10	1333-86-4
Wax	<10	TRADE SECRET
Amorphous silica	<5	7631-86-9
Titanium dioxide	<1	13463-67-7

SECTION 4: First aid measures**4.1 Description of first aid measures**

- Inhalation:** Remove from exposure area to fresh air immediately.
Contact a physician if there is any difficulty in breathing or other signs of distress.
- Skin Contact:** Wash with soap and water.
If irritation occurs or is persistent, seek medical attention.
- Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes.
If irritation persists, call a physician.
- Ingestion:** Dilute stomach contents with several glasses of water.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media:** Foam, carbon dioxide, dry chemical, water mist
- Unsuitable extinguishing media:** None

5.2 Special Hazards

- Hazards from the substance or mixture:** Can form explosive dust-air mixtures when finely dispersed in air.

5.3 Advice for firefighters

- Special protective equipment for fire-fighters:** Wear cold insulating gloves/face shield/eye protection.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Wear proper protective equipment.
Avoid breathing dust.

6.2 Environmental precautions

- Do not wash away into shower or waterway.

6.3 Methods and materials for containment and cleaning up

- Sweep slowly spilled toner/developer and carefully transfer into a waste container.

SAFETY DATA SHEET

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Preventive measures

Do not breathe dust.

Exhaust/ventilator

No special ventilation equipment is needed under intended use.

7.2 Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a dry place.

Keep out of the reach of children.

7.3 Specific end use(s)

Toner for electrophotographic equipment

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH

(Carbon black)

ACGIH(2010) TWA: 3mg/m³(I)

(Titanium dioxide)

ACGIH(1992) TWA: 10mg/m³ (LRT irr)

OSHA-PEL

(Titanium dioxide)

TWA 15mg/m³

(Carbon black)

TWA 3.5mg/m³

(as the product)

TWA 15mg/m³(Total dust)

5mg/m³(Respirable fraction)

DMG-MAK

(as the product)

4mg/m³(Inhalable fraction)

1.5mg/m³(Respirable fraction)

8.2 Exposure controls

Individual protection measures

Respiratory protection:

Not required under intended use.

Hand protection:

Not required under intended use.

Eye protection:

Not required under intended use.

Skin and body protection:

Not required under intended use.

SAFETY DATA SHEET

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical properties

Appearance:	Powder
Colour:	Black
Odour:	None

Phase change temperature

Melting point/Freezing point:	110-150(Softening point)°C
Auto-ignition temperature data:	Not available
Specific gravity/Density:	1.1-1.5g/cm ³
Solubility	
Solubility in water:	Insoluble

9.2 Other information

Explosive Properties:	Little possibility in intended use. According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.
------------------------------	--

SECTION 10: Stability and reactivity

10.2 Chemical stability:	Stable.
10.3 Possibility of hazardous reactions:	None.
10.5 Incompatible materials:	None.
10.6 Hazardous decomposition products:	None.

SAFETY DATA SHEET

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute toxicity (Oral): LD50 > 2,000mg/kg
(This was the highest attainable mass.)
Acute toxicity (Gases inhalation): LC50 >5.05mg/l
(This was the highest attainable concentration.)

Irritant properties

Skin corrosion/irritation: Mild irritation
Serious eye damage /irritation: Minimal irritation

Skin sensitization: Non-sensitizer

Germ cell mutagenicity

Ames test: Negative

Carcinogenicity:

The IARC classified carbon black as a Group 2B carcinogen (possible human carcinogen). But carcinogenicity was not observed with toner containing carbon black in chronic rat inhalation study.
The IARC re-evaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, carcinogenicity was observed in only specific rats. This is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Reproductive toxicity: No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Chronic Effects: In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

Aspiration hazard: No data available

SAFETY DATA SHEET

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity:

LC50 is greater than 100mg/L (fish)
EC50 is greater than 100mg/L (daphnia)
EC50 is greater than 100mg/L (Algae)

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Mobility in soil:

No data available

Ozone depleting chemical:

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local, state and federal regulations.
Empty plastic container may be recycled.

SECTION 14: Transport information

UN No, UN CLASS

Not applicable to UN NO.

Land DOT 49 CFR,ADR :

Not classified as Dangerous Goods

Sea IMDG Code :

Not classified as Dangerous Goods

Air ICAO-TI :

Not classified as Dangerous Goods

SAFETY DATA SHEET

SECTION 15: Regulatory information

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

US/Canada Information

Toxic Substance Control Act (TSCA)

All chemical substances in this product comply with all applicable rules or orders under TSCA.

California Proposition 65

Not regulated.

OSHA Hazard Communication Standard, 29CFR 1910.1200

Not regulated.

RCRA (40 CFR 261)

Product or components not listed.

CERCLA/SARA Information

Not regulated.

NTP Annual Report on Carcinogens

Not listed as an NTP carcinogen.

Controlled Products Regulations (Canada)

This product has been classified in accordance with the hazard criteria of the CPR.

Workplace Hazardous Materials Information System (Canada)

No toxicology information available.

EU Information

Regulation (EC) No. 1907/2006 (REACH)

All chemical substances in this product comply with all applicable rules or order under 1907/2006.

Australian Information

Not classified as hazardous according to criteria of NOHSC

The substance is being imported or manufactured under a permit granted under section 21U of the Industrial Chemicals (Notification and Assessment) Act 1989

SAFETY DATA SHEET

SECTION 16: Other information**Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2015 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats
H.Muhle et.al ; Fundamental and Applied Toxicology 17.280-299(1991)
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic
Inhalation Exposure in Rats
B.Bellmann ; Fundamental and Applied Toxicology 17.300-313(1991)

Definitions and Abbreviations

OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health
Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental
Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche
Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Product name:**

Yellow toner powder (cartridge) for
ES9466MFP Series
ES9476MFP Series
(Toner powder name: T-FC505E-Y)

Product description:

Yellow Toner

1.2 Relevant identified uses of the substance or mixture and uses advised against**Material uses:**

For electrophotographic printing systems

1.3 Details of the supplier of the safety data sheet**Manufacturer:**

OKI Data Corporation
3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 Japan
Tel: +81 27-328-6366 Fax: +81-27-328-6398

Supplier:

OKI Europe Limited
Blays House, Wick Road, Egham, Surrey, TW20 0HJ, UK
Tel: +44 (0) 208 219 2190 Fax: +44 (0) 208 219 2199
e-mail: SDSQuestions@okieurope.com

1.4 Emergency telephone number**OKI Europe Limited:**

+44 (0) 208 219 2190
(Supported 09:00 to 17:00 UK Time, Monday to Friday
except Bank Holidays)

SECTION 2: Hazards identification**GHS classification and label elements of the product****2.1 Classification of the substance or mixture****HEALTH HAZARDS**

Acute toxicity Oral:	Out of class
Acute toxicity Inhalation:	Out of class
Skin corrosion/irritation:	Out of class
Eye damage/eye irritation:	Out of class
Skin sensitization:	Out of class

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment - acute hazard: Out of class

(Note)

GHS classification without description: Not applicable/Out of classification/Not classifiable

SECTION 3: Composition/information on ingredients

Substance/mixture: Mixture

Ingredient name	Content(%)	CAS No.
-----------------	------------	---------

SAFETY DATA SHEET

Polyester resin	80-90	TRADE SECRET
Organic Pigment	<10	TRADE SECRET
Wax	<10	TRADE SECRET
Amorphous silica	<5	7631-86-9
Titanium dioxide	<1	13463-67-7

SECTION 4: First aid measures**4.1 Description of first aid measures**

Inhalation:	Remove from exposure area to fresh air immediately. Contact a physician if there is any difficulty in breathing or other signs of distress.
Skin Contact:	Wash with soap and water. If irritation occurs or is persistent, seek medical attention.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.
Ingestion:	Dilute stomach contents with several glasses of water.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:	Foam, carbon dioxide, dry chemical, water mist
Unsuitable extinguishing media:	None

5.2 Special Hazards

Hazards from the substance or mixture:	Can form explosive dust-air mixtures when finely dispersed in air.
---	--

5.3 Advice for firefighters

Special protective equipment for fire-fighters:	Wear cold insulating gloves/face shield/eye protection.
--	---

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear proper protective equipment.
Avoid breathing dust.

6.2 Environmental precautions

Do not wash away into shower or waterway.

6.3 Methods and materials for containment and cleaning up

Sweep slowly spilled toner/developer and carefully transfer into a waste container.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Preventive measures
Do not breathe dust.

SAFETY DATA SHEET

Exhaust/ventilator

No special ventilation equipment is needed under intended use.

7.2 Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a dry place.

Keep out of the reach of children.

7.3 Specific end use(s)

Toner for electrophotographic equipment

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH

(Titanium dioxide)

ACGIH(1992) TWA: 10mg/m³ (LRT irr)

OSHA-PEL

(Titanium dioxide)

TWA 15mg/m³

(as the product)

TWA 15mg/m³(Total dust)

5mg/m³(Respirable fraction)

DMG-MAK

(as the product)

4mg/m³(Inhalable fraction)

1.5mg/m³(Respirable fraction)

8.2 Exposure controls

Individual protection measures

Respiratory protection:

Not required under intended use.

Hand protection:

Not required under intended use.

Eye protection:

Not required under intended use.

Skin and body protection:

Not required under intended use.

SAFETY DATA SHEET

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical properties

Appearance:	Powder
Colour:	Yellow
Odour:	None

Phase change temperature

Melting point/Freezing point:	110-150(Softening point)°C
Auto-ignition temperature data:	Not available
Specific gravity/Density:	1.1-1.5g/cm ³
Solubility	
Solubility in water:	Insoluble

9.2 Other information

Explosive Properties:	Little possibility in intended use. According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.
------------------------------	--

SECTION 10: Stability and reactivity

10.2 Chemical stability:	Stable.
10.3 Possibility of hazardous reactions:	None.
10.5 Incompatible materials:	None.
10.6 Hazardous decomposition products:	None.

SAFETY DATA SHEET

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute toxicity (Oral): LD50 > 2,000mg/kg
(This was the highest attainable mass.)
Acute toxicity (Gases inhalation): LC50 >5.06mg/l
(This was the highest attainable concentration.)

Irritant properties

Skin corrosion/irritation: Mild irritation
Serious eye damage /irritation: Minimal irritation

Skin sensitization: Non-sensitizer

Germ cell mutagenicity

Ames test: Negative

Carcinogenicity:

The IARC re-evaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, carcinogenicity was observed in only specific rats. This is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Reproductive toxicity: No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Chronic Effects: In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

Aspiration hazard: No data available

SAFETY DATA SHEET

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity:

Acute toxicity component(s) data: LC50 is greater than 100mg/L (fish)
EC50 is greater than 100mg/L (daphnia)
EC50 is greater than 100mg/L (Algae)
(This was the highest attainable mass.)

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Ozone depleting chemical: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local, state and federal regulations.
Empty plastic container may be recycled.

SECTION 14: Transport information

UN No, UN CLASS

Not applicable to UN NO.

Land DOT 49 CFR,ADR :

Not classified as Dangerous Goods

Sea IMDG Code :

Not classified as Dangerous Goods

Air ICAO-TI :

Not classified as Dangerous Goods

SAFETY DATA SHEET

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****US/Canada Information****Toxic Substance Control Act (TSCA)**

All chemical substances in this product comply with all applicable rules or orders under TSCA.

California Proposition 65

Not regulated.

OSHA Hazard Communication Standard, 29CFR 1910.1200

Not regulated.

RCRA (40 CFR 261)

Product or components not listed.

CERCLA/SARA Information

Not regulated.

NTP Annual Report on Carcinogens

Not listed as an NTP carcinogen.

Controlled Products Regulations (Canada)

This product has been classified in accordance with the hazard criteria of the CPR.

Workplace Hazardous Materials Information System (Canada)

No toxicology information available.

EU Information**Regulation (EC) No. 1907/2006 (REACH)**

All chemical substances in this product comply with all applicable rules or order under 1907/2006.

Australian Information

Not classified as hazardous according to criteria of NOHSC

The substance is being imported or manufactured under a permit granted under section 21U of the Industrial Chemicals (Notification and Assessment) Act 1989

SAFETY DATA SHEET

SECTION 16: Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2015 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats
H.Muhle et.al ; Fundamental and Applied Toxicology 17.280-299(1991)
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic
Inhalation Exposure in Rats
B.Bellmann ; Fundamental and Applied Toxicology 17.300-313(1991)

Definitions and Abbreviations

OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health
Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental
Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche
Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Product name:**

Magenta toner powder (cartridge) for
ES9466MFP Series
ES9476MFP Series
(Toner powder name: T-FC505E-M)

Product description:

Magenta Toner

1.2 Relevant identified uses of the substance or mixture and uses advised against**Material uses:**

For electrophotographic printing systems

1.3 Details of the supplier of the safety data sheet**Manufacturer:**

OKI Data Corporation
3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 Japan
Tel: +81 27-328-6366 Fax: +81-27-328-6398

Supplier:

OKI Europe Limited
Blays House, Wick Road, Egham, Surrey, TW20 0HJ, UK
Tel: +44 (0) 208 219 2190 Fax: +44 (0) 208 219 2199
e-mail: SDSQuestions@okieurope.com

1.4 Emergency telephone number**OKI Europe Limited:**

+44 (0) 208 219 2190
(Supported 09:00 to 17:00 UK Time, Monday to Friday
except Bank Holidays)

SECTION 2: Hazards identification**GHS classification and label elements of the product****2.1 Classification of the substance or mixture****HEALTH HAZARDS**

Acute toxicity Oral:	Out of class
Acute toxicity Inhalation:	Out of class
Skin corrosion/irritation:	Out of class
Eye damage/eye irritation:	Out of class
Skin sensitization:	Out of class

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment - acute hazard: Out of class

(Note)

GHS classification without description: Not applicable/Out of classification/Not classifiable

SECTION 3: Composition/information on ingredients

Substance/mixture: Mixture

Ingredient name	Content(%)	CAS No.
-----------------	------------	---------

SAFETY DATA SHEET

Polyester resin	80-90	TRADE SECRET
Organic Pigment	<10	TRADE SECRET
Wax	<10	TRADE SECRET
Amorphous silica	<5	7631-86-9
Titanium dioxide	<1	13463-67-7

SECTION 4: First aid measures**4.1 Description of first aid measures**

Inhalation:	Remove from exposure area to fresh air immediately. Contact a physician if there is any difficulty in breathing or other signs of distress.
Skin Contact:	Wash with soap and water. If irritation occurs or is persistent, seek medical attention.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.
Ingestion:	Dilute stomach contents with several glasses of water.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:	Foam, carbon dioxide, dry chemical, water mist
Unsuitable extinguishing media:	None

5.2 Special Hazards

Hazards from the substance or mixture:	Can form explosive dust-air mixtures when finely dispersed in air.
---	--

5.3 Advice for firefighters

Special protective equipment for fire-fighters:	Wear cold insulating gloves/face shield/eye protection.
--	---

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear proper protective equipment.
Avoid breathing dust.

6.2 Environmental precautions

Do not wash away into shower or waterway.

6.3 Methods and materials for containment and cleaning up

Sweep slowly spilled toner/developer and carefully transfer into a waste container.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Preventive measures
Do not breathe dust.

SAFETY DATA SHEET

Exhaust/ventilator

No special ventilation equipment is needed under intended use.

7.2 Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a dry place.

Keep out of the reach of children.

7.3 Specific end use(s)

Toner for electrophotographic equipment

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH

(Titanium dioxide)

ACGIH(1992) TWA: 10mg/m³ (LRT irr)

OSHA-PEL

(Titanium dioxide)

TWA 15mg/m³

(as the product)

TWA 15mg/m³(Total dust)

5mg/m³(Respirable fraction)

DMG-MAK

(as the product)

4mg/m³(Inhalable fraction)

1.5mg/m³(Respirable fraction)

8.2 Exposure controls

Individual protection measures

Respiratory protection:

Not required under intended use.

Hand protection:

Not required under intended use.

Eye protection:

Not required under intended use.

Skin and body protection:

Not required under intended use.

SAFETY DATA SHEET

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Physical properties**

Appearance:	Powder
Colour:	Magenta
Odour:	None

Phase change temperature

Melting point/Freezing point:	110-150(Softening point)°C
Auto-ignition temperature data:	Not available
Specific gravity/Density:	1.1-1.5g/cm ³
Solubility	
Solubility in water:	Insoluble

9.2 Other information

Explosive Properties:	Little possibility in intended use. According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.
------------------------------	--

SECTION 10: Stability and reactivity

10.2 Chemical stability:	Stable.
10.3 Possibility of hazardous reactions:	None.
10.5 Incompatible materials:	None.
10.6 Hazardous decomposition products:	None.

SAFETY DATA SHEET

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute toxicity (Oral): LD50 > 2,000mg/kg
(This was the highest attainable mass.)
Acute toxicity (Gases inhalation): LC50 >5.04mg/l
(This was the highest attainable concentration.)

Irritant properties

Skin corrosion/irritation: Mild irritation
Serious eye damage /irritation: Minimal irritation

Skin sensitization:

Non-sensitizer

Germ cell mutagenicity

Ames test: Negative

Carcinogenicity:

The IARC re-evaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, carcinogenicity was observed in only specific rats. This is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Reproductive toxicity:

No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Chronic Effects: In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

Aspiration hazard:

No data available

SAFETY DATA SHEET

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity:

Acute toxicity component(s) data: LC50 is greater than 100mg/L (fish)
EC50 is greater than 100mg/L (daphnia)
EC50 is greater than 100mg/L (Algae)
(This was the highest attainable mass.)

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Ozone depleting chemical: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local, state and federal regulations.

Empty plastic container may be recycled.

SECTION 14: Transport information

UN No, UN CLASS

Not applicable to UN NO.

Land DOT 49 CFR,ADR :

Not classified as Dangerous Goods

Sea IMDG Code :

Not classified as Dangerous Goods

Air ICAO-TI :

Not classified as Dangerous Goods

SAFETY DATA SHEET

SECTION 15: Regulatory information

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

US/Canada Information

Toxic Substance Control Act (TSCA)

All chemical substances in this product comply with all applicable rules or orders under TSCA.

California Proposition 65

Not regulated.

OSHA Hazard Communication Standard, 29CFR 1910.1200

Not regulated.

RCRA (40 CFR 261)

Product or components not listed.

CERCLA/SARA Information

Not regulated.

NTP Annual Report on Carcinogens

Not listed as an NTP carcinogen.

Controlled Products Regulations (Canada)

This product has been classified in accordance with the hazard criteria of the CPR.

Workplace Hazardous Materials Information System (Canada)

No toxicology information available.

EU Information

Regulation (EC) No. 1907/2006 (REACH)

All chemical substances in this product comply with all applicable rules or order under 1907/2006.

Australian Information

Not classified as hazardous according to criteria of NOHSC

The substance is being imported or manufactured under a permit granted under section 21U of the Industrial Chemicals (Notification and Assessment) Act 1989

SAFETY DATA SHEET

SECTION 16: Other information**Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2015 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats
H.Muhle et.al ; Fundamental and Applied Toxicology 17.280-299(1991)
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic
Inhalation Exposure in Rats
B.Bellmann ; Fundamental and Applied Toxicology 17.300-313(1991)

Definitions and Abbreviations

OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health
Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental
Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche
Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

SAFETY DATA SHEET

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

1.1 Product identifier

Product name:

Cyan toner powder (cartridge) for
ES9466MFP Series
ES9476MFP Series
(Toner powder name: T-FC505E-C)

Product description:

Cyan Toner

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

Material uses:

For electrophotographic printing systems

1.3 Details of the supplier of the safety data sheet

Manufacturer:

OKI Data Corporation
3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 Japan
Tel: +81 27-328-6366 Fax: +81-27-328-6398

Supplier:

OKI Europe Limited
Blays House, Wick Road, Egham, Surrey, TW20 0HJ, UK
Tel: +44 (0) 208 219 2190 Fax: +44 (0) 208 219 2199
e-mail:SDSQuestions@okieurope.com

1.4 Emergency telephone number

OKI Europe Limited:

+44 (0) 208 219 2190
(Supported 09:00 to 17:00 UK Time, Monday to Friday
except Bank Holidays)

SECTION 2: Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity Oral:	Out of class
Acute toxicity Inhalation:	Out of class
Skin corrosion/irritation:	Out of class
Eye damage/eye irritation:	Out of class
Skin sensitization:	Out of class

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment - acute hazard: Out of class

(Note)

GHS classification without description: Not applicable/Out of classification/Not classifiable

SECTION 3: Composition/information on ingredients

Substance/mixture: Mixture

Ingredient name	Content(%)	CAS No.
-----------------	------------	---------

SAFETY DATA SHEET

Polyester resin	80-90	TRADE SECRET
Organic Pigment	<10	TRADE SECRET
Wax	<10	TRADE SECRET
Amorphous silica	<5	7631-86-9
Titanium dioxide	<1	13463-67-7

SECTION 4: First aid measures**4.1 Description of first aid measures**

Inhalation:	Remove from exposure area to fresh air immediately. Contact a physician if there is any difficulty in breathing or other signs of distress.
Skin Contact:	Wash with soap and water. If irritation occurs or is persistent, seek medical attention.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.
Ingestion:	Dilute stomach contents with several glasses of water.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media:	Foam, carbon dioxide, dry chemical, water mist
Unsuitable extinguishing media:	None

5.2 Special Hazards

Hazards from the substance or mixture:	Can form explosive dust-air mixtures when finely dispersed in air.
---	--

5.3 Advice for firefighters

Special protective equipment for fire-fighters:	Wear cold insulating gloves/face shield/eye protection.
--	---

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear proper protective equipment.
Avoid breathing dust.

6.2 Environmental precautions

Do not wash away into shower or waterway.

6.3 Methods and materials for containment and cleaning up

Sweep slowly spilled toner/developer and carefully transfer into a waste container.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Preventive measures
Do not breathe dust.
Exhaust/ventilator
No special ventilation equipment is needed under intended use.

SAFETY DATA SHEET

7.2 Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a dry place.

Keep out of the reach of children.

7.3 Specific end use(s)

Toner for electrophotographic equipment

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH

(Titanium dioxide)

ACGIH(1992) TWA: 10mg/m³ (LRT irr)

OSHA-PEL

(Titanium dioxide)

TWA 15mg/m³

(as the product)

TWA 15mg/m³(Total dust)

5mg/m³(Respirable fraction)

DMG-MAK

(as the product)

4mg/m³(Inhalable fraction)

1.5mg/m³(Respirable fraction)

8.2 Exposure controls

Individual protection measures

Respiratory protection:

Not required under intended use.

Hand protection:

Not required under intended use.

Eye protection:

Not required under intended use.

Skin and body protection:

Not required under intended use.

SAFETY DATA SHEET

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical properties

Appearance:	Powder
Colour:	Cyan
Odour:	None

Phase change temperature

Melting point/Freezing point:	110-150(Softening point)°C
Auto-ignition temperature data:	Not available
Specific gravity/Density:	1.1-1.5g/cm ³
Solubility	
Solubility in water:	Insoluble

9.2 Other information

Explosive Properties:	Little possibility in intended use. According to Explosive Evaluation, can form explosive dust-air mixtures when finely dispersed in air, like most finely grained organic powder.
------------------------------	--

SECTION 10: Stability and reactivity

10.2 Chemical stability:	Stable.
10.3 Possibility of hazardous reactions:	None.
10.5 Incompatible materials:	None.
10.6 Hazardous decomposition products:	None.

SAFETY DATA SHEET

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Acute toxicity (Oral): LD50 > 2,000mg/kg
(This was the highest attainable mass.)
Acute toxicity (Gases inhalation): LC50 >5.03mg/l
(This was the highest attainable concentration.)

Irritant properties

Skin corrosion/irritation: Mild irritation
Serious eye damage /irritation: Minimal irritation

Skin sensitization:

Non-sensitizer

Germ cell mutagenicity

Ames test: Negative

Carcinogenicity:

The IARC re-evaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, carcinogenicity was observed in only specific rats. This is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Epidemiological study to date has not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

Reproductive toxicity:

No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Chronic Effects: In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m³) exposure group. These findings are attributed to "lung overloading", a general response to excessive amounts of any dust retained in the lungs for a prolonged period.

Aspiration hazard:

No data available

SAFETY DATA SHEET

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity:

Acute toxicity component(s) data: LC50 is greater than 100mg/L (fish)
EC50 is greater than 100mg/L (daphnia)
EC50 is greater than 100mg/L (Algae)
(This was the highest attainable mass.)

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Ozone depleting chemical: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local, state and federal regulations.

Empty plastic container may be recycled.

SECTION 14: Transport information

UN No, UN CLASS

Not applicable to UN NO.

Land DOT 49 CFR,ADR :

Not classified as Dangerous Goods

Sea IMDG Code :

Not classified as Dangerous Goods

Air ICAO-TI :

Not classified as Dangerous Goods

SAFETY DATA SHEET

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****US/Canada Information****Toxic Substance Control Act (TSCA)**

All chemical substances in this product comply with all applicable rules or orders under TSCA.

California Proposition 65

Not regulated.

OSHA Hazard Communication Standard, 29CFR 1910.1200

Not regulated.

RCRA (40 CFR 261)

Product or components not listed.

CERCLA/SARA Information

Not regulated.

NTP Annual Report on Carcinogens

Not listed as an NTP carcinogen.

Controlled Products Regulations (Canada)

This product has been classified in accordance with the hazard criteria of the CPR.

Workplace Hazardous Materials Information System (Canada)

No toxicology information available.

EU Information**Regulation (EC) No. 1907/2006 (REACH)**

All chemical substances in this product comply with all applicable rules or order under 1907/2006.

Australian Information

Not classified as hazardous according to criteria of NOHSC

The substance is being imported or manufactured under a permit granted under section 21U of the Industrial Chemicals (Notification and Assessment) Act 1989

SAFETY DATA SHEET

SECTION 16: Other information**Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2015 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats
H.Muhle et.al ; Fundamental and Applied Toxicology 17.280-299(1991)
Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic
Inhalation Exposure in Rats
B.Bellmann ; Fundamental and Applied Toxicology 17.300-313(1991)

Definitions and Abbreviations

OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health
Administration (USA)
ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental
Industrial Hygienists (USA)
DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche
Forschungsgemeinschaft
TWA stands for Time Weighted Average
IARC stands for International Agency for Research on Cancer
NTP stands for National Toxicology Program (USA)
DOT stands for Department of Transportation (USA)
NOHSC stands for National Occupational Health and Safety Commission (Australia)
ADG stands for Australian Dangerous Goods

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.