

SAFETY DATA SHEET

Toner powder (Cartridge) for

ES9455MFP

Oki Data Corporation

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Black toner (cartridge) for
 ES9455MFP (Toner powder name : T-FC30U-K)
Manufacturer : Oki Data Corporation
 : 3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 JAPAN.
 Tel : +81-27-328-6366, Fax : +81-27-328-6396
Supplier : Oki (Europe) Ltd.
 1 Oki Way, Wardpark, Cumbernauld G68 0FQ, SCOTLAND, UK.
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2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION****PHYSICAL AND CHEMICAL HAZARDS**

EXPLOSIVES : Not classified.
FLAMMABLE GASES : Not applicable.
FLAMMABLE AEROSOLS : Not applicable.
OXIDIZING GASES : Not applicable.
GASES UNDER PRESSURE : Not applicable.
FLAMMABLE LIQUIDS : Not applicable.
FLAMMABLE SOLIDS : Not classified.
SELF-REACTIVE MIXTURES : Not classified.
PYROPHORIC LIQUIDS : Not applicable.
PYROPHORIC SOLIDS : Not classified.
SELF-HEATING MIXTURES : Not classified.
OXIDIZING LIQUIDS : Not classified.
OXIDIZING SOLIDS : Not classified.
ORGANIC PEROXIDES : Not classified.
CORROSIVE TO METALS : Not classified.

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified.
ACUTE TOXICITY (Dermal) : Classification not possible.
ACUTE TOXICITY (Inhalation-Gas) : Not applicable.
ACUTE TOXICITY (Inhalation-Vapor) : Classification not possible.
ACUTE TOXICITY (Inhalation-Dust) : Not classified.
SKIN CORROSION / IRRITATION : Not classified.
SERIOUS EYE DAMAGE / EYE IRRITATION : Classification not possible.
RESPIRATORY SENSITIZATION : Classification not possible.
SKIN SENSITIZATION : Not classified.
GERM CELL MUTAGENICITY : Classification not possible.
CARCINOGENICITY : Classification not possible.
REPRODUCTIVE TOXICITY : Classification not possible.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY
- SINGLE EXPOSURE : Classification not possible.
- REPEATED EXPOSURE : Classification not possible.
ASPIRATION HAZARD : Classification not possible.

ENVIRONMENTAL HAZARDS**HAZARDOUS TO THE AQUATIC ENVIRONMENT**

- ACUTE TOXICITY : Not classified.
- CHRONIC TOXICITY : Classification not possible.

GHS LABEL ELEMENTS : Not applicable.

OTHER HAZARDS

DUST EXPLOSIBILITY : The potential dust explosion level equivalent to common powder (See the section 9).

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

<u>INGREDIENT(S)</u>	<u>CAS No.</u>	<u>Concentration Range(wt%)</u>
Polyester resin	Trade secret	80-89
Carbon black	1333-86-4	4-7
Wax	Trade secret	4-7
Amorphous Silica	7631-86-9	3-6
Titanium dioxide	13463-67-7	0.1-0.9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

- IN CASE OF EYE CONTACT** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. After initial flushing, remove any contact lenses and continue flushing. Get medical attention/advice if irritation occurs.
- IN CASE OF SKIN CONTACT** : Gently wash with plenty of soap and water.
If concerned: Get medical attention/advice.
- IN CASE OF INHALATION** : Move to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- IN CASE OF INGESTION** : Wash out mouth with water. If material has been swallowed, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA** : Use water spray, foam, dry chemical or powder extinguishing media.
- NOT SUITABLE EXTINGUISHING MEDIA** : Do not use a solid water streams.
- SPECIAL HAZARDS** : There have possibilities to generate irritating or toxic gases.
- ADVICE FOR FIREFIGHTERS** : Keep away from sources of ignition and use the appropriate extinguishing media. Fight fire from upwind position if possible.
- PROTECTION OF FIREFIGHTERS** : Use appropriate protective equipment, goggles, dust mask, and another protections depending on the situation.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE**

- : - Avoid breathing dust.
- Use appropriate protective equipment, mask, goggles, protective gloves...etc
- When large spills, evacuate person to safe place.
- Provide adequate ventilation.
- Operate from upwind position.

ENVIRONMENTAL PRECAUTIONS

- : - Avoid dispersal of spilled material.
- Do not discharge into drains, waterways and sewers directly.

METHODS FOR CLEANING UP

- : Vacuum up or sweep up the spilled material and collect in suitable container for disposal. Use spark-proof tools and explosion-proof equipment.

PREVENTION OF SECONDARY HAZARDS

- : No information available.

7. HANDLING AND STORAGE**HANDLING**

TECHNICAL MEASURES : No special equipment are necessity for operating under usual conditions.

PRECAUTIONS : - Avoid inhalation of fine dust.
 - Keep away from excessive heat, sparks and open flames.
 - Keep cartridge (material) out of reach of children.

SAFE HANDLING ADVICE : - Provide adequate ventilation.
 - Wash hands after handling.
 - Use appropriate protective equipment as required.

STORAGE**SUITABLE STORAGE CONDITIONS**

- : - Store in hermetically-sealed container.
- Protected from direct sunlight in a dry, cool and well-ventilated area.
- Do not store above the following temperature: 35°C.

SAFE PACKAGING MATERIALS : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : No special equipment are necessity for operating under usual conditions. Use local exhaust ventilation, in the case of dust discharging.

LIMIT VALUES

ACGIH (TLV) : Toner : 10mg/m³ TWA (inhalable particles, recommended);
 3mg/m³ TWA (respirable particles, recommended)
 Amorphous Silica : TWA 10mg/m³
 Titanium Dioxide : 10mg/m³ TLV
 Carbon Black : TWA 3.5mg/m³

OSHA (PEL)	: Toner : 15mg/m ³ TWA (total dust); 5mg/m ³ TWA (respirable fraction) Titanium Dioxide : TWA 15mg/m ³ Carbon Black : TWA 3.5mg/m ³
EU OEL	: Not established.
DFG MAK	: Dust (Toner) : 4mg/m ³ (Inhalable fraction) 1.5mg/m ³ (Respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	: Use dust mask up to the situation.
HAND PROTECTION	: Use rubber gloves up to the situation.
EYE PROTECTION	: Use safety glasses or goggles up to the situation.
SKIN AND BODY PROTECTION	: Wear protective suit up to the situation.
HYGIENE MEASURES	: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL STATES**

FORM	: Fine solid Powder.
COLOUR	: Black.
ODOUR	: Odourless.
Ph VALUE	: Not applicable.

SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT	: No information available.
MELTING POINT	: 110 - 150 degree (Softening point)
FLASH POINT	: Not applicable.

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS	: UPPER LIMIT : No information available. LOWER LIMIT : No information available.
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VAPOUR PRESSURE : Not applicable.

VAPOUR DENSITY : Not applicable.

SPECIFIC GRAVITY (DENSITY) : 1.1 - 1.5

SOLUBILITY

WATER SOLUBILITY : Insoluble.

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

PARTITION COEFFICIENT

n-OCTANOL / WATER (log Pow) : No information available.

AUTO-IGNITION TEMPERATURE : No information available.

ODOUR THRESHOLD : No information available.

EVAPORATION RATE : No information available.

FLAMMABILITY (SOLD, GAS) : No information available.

VISCOSITY : No information available.

OTHER DATA : No information available.

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 powders.

10. STABILITY AND REACTIVITY

REACTIVITY : Low reactivity.

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS

: None under normal processing. Hazardous Polymerization will not occur.

CONDITIONS TO AVOID : Electric discharge, throwing into fire.

INCOMPATIBLE MATERIALS : The product should be kept away from oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and carbon dioxide.

OTHERS : No information available.

11. SUPPLEMENTAL HEALTH INFORMATION

Acute oral toxicity : LD50 is greater than 2,000mg/kg.

(This was the highest attainable mass.)

Acute inhalation : LC50 (4H) is in excess of 5.03mg/l.

(This was the highest attainable concentration.)

Eye irritation : Minimum irritating. Not classified by GHS.

Skin irritation : Mildly irritating. Not classified by GHS.

Skin sensitization : Non-sensitizer.

Mutagenicity : Negative in the Ames test.

Carcinogenicity : The IARC classified carbon black as a Group 2B carcinogen (possibly carcinogenic to humans). But carcinogenicity was not observed with toner containing carbon black in chronic rat inhalation study.

The IARC reevaluated 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 have not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

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 (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/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.

OTHER INFORMATION : No information available.

12. ECOLOGICAL INFORMATION

Aquatic environment : LC50 is greater than 100mg/L (fish).

: EC50 is greater than 100mg/L (daphnia).

: EbC50 is greater than 100mg/L (Algal).

(This was the highest attainable mass.)

PERSISTENCE / DEGRADABILITY : No information available.

MOBILITY IN SOIL : No information available.
 BIOACCUMULATIVE POTENTIAL : No information available.
 OTHER ADVERSE EFFECTS : No information available.

13. DISPOSAL CONSIDERATION

Review "HANDLING AND STORAGE (Section7)".

Dispose this article comply with the regulations of each countries.

The IARC classified carbon black as a Group 2B carcinogen (possibly carcinogenic to humans).

14. TRANSPORTATION INFORMATION

Special Precautions : None.

International Transport Information

UN Classification Number : Not applicable.
 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.

15. REGULATORY INFORMATION

US/Canada Information

OSHA Hazard Communication Standard, 29CFR 1910. 1200

: Not regulated.

Toxic Substance Control Act (TSCA)

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

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.

California Proposition 65

: Neither toner, or any of the components, are listed as chemicals known to the State of California to cause cancer or reproductive system effects.

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.

Other State Regulations

: Carbon black is listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./Canada Label Statements

: **LOW HAZARD FOR RECOMMENDED HANDLING.**
 Minimize dust generation and accumulation. Use with adequate ventilation.

EU Information**Label Information According to Directives 67/548 EEC & 1999/45 EC**

Symbol & Indication : Not required.

Risk Phrase : Not required.

Safety Advise Phrase : Not required.

76/769/EEC : All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

National requirement : No specific regulations or restrictions.

Regulation (EC) No. 1907/2006 (REACH) : All chemical substances in this product comply with all applicable rules or order under 1907/2006.

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Classification.**

Flammability : 1

Reactivity : 0

Health : 0

(0 = insignificant, 1 = slight)

Hazardous Materials Information Systems (HMIS).

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 0

(0 = insignificant, 1 = slight)

Notice : Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Oki Data Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

Abbreviation : (1) OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA).
 (2) ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA).
 (3) DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
 (4) TWA stands for Time Weighted Average.
 (5) NTP stands for National Toxicology Program (USA).
 (6) NIOSH stands for National Institute for Occupational Safety and Health (USA).
 (7) DOT stands for Department of Transportation (USA).
 (8) NOHSC stands for National Occupational Health and Safety Commission (Australia).

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Yellow toner (cartridge) for
 ES9455MFP (Toner powder name : T-FC30U-Y)
Manufacturer : Oki Data Corporation
 : 3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 JAPAN.
 Tel : +81-27-328-6366, Fax : +81-27-328-6396
Supplier : Oki (Europe) Ltd.
 1 Oki Way, Wardpark, Cumbernauld G68 0FQ, SCOTLAND, UK.
 Tel. : +44(0) 1236 502502
Emergency Telephone. No. : +44(0) 1236 502502
Emergency e-mail contact : MSDSQuestion@okieurope.com

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION****PHYSICAL AND CHEMICAL HAZARDS**

EXPLOSIVES : Not classified.
FLAMMABLE GASES : Not applicable.
FLAMMABLE AEROSOLS : Not applicable.
OXIDIZING GASES : Not applicable.
GASES UNDER PRESSURE : Not applicable.
FLAMMABLE LIQUIDS : Not applicable.
FLAMMABLE SOLIDS : Not classified.
SELF-REACTIVE MIXTURES : Not classified.
PYROPHORIC LIQUIDS : Not applicable.
PYROPHORIC SOLIDS : Not classified.
SELF-HEATING MIXTURES : Not classified.
OXIDIZING LIQUIDS : Not classified.
OXIDIZING SOLIDS : Not classified.
ORGANIC PEROXIDES : Not classified.
CORROSIVE TO METALS : Not classified.

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified.
ACUTE TOXICITY (Dermal) : Classification not possible.
ACUTE TOXICITY (Inhalation-Gas) : Not applicable.
ACUTE TOXICITY (Inhalation-Vapor) : Classification not possible.
ACUTE TOXICITY (Inhalation-Dust) : Not classified.
SKIN CORROSION / IRRITATION : Not classified.
SERIOUS EYE DAMAGE / EYE IRRITATION : Classification not possible.
RESPIRATORY SENSITIZATION : Classification not possible.
SKIN SENSITIZATION : Not classified.
GERM CELL MUTAGENICITY : Classification not possible.
CARCINOGENICITY : Classification not possible.
REPRODUCTIVE TOXICITY : Classification not possible.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY
- SINGLE EXPOSURE : Classification not possible.
- REPEATED EXPOSURE : Classification not possible.
ASPIRATION HAZARD : Classification not possible.

ENVIRONMENTAL HAZARDS**HAZARDOUS TO THE AQUATIC ENVIRONMENT**

- ACUTE TOXICITY : Not classified.
- CHRONIC TOXICITY : Classification not possible.

GHS LABEL ELEMENTS : Not applicable.

OTHER HAZARDS

DUST EXPLOSIBILITY : The potential dust explosion level equivalent to common powder (See the section 9).

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

<u>INGREDIENT(S)</u>	<u>CAS No.</u>	<u>Concentration Range(wt%)</u>
Polyester resin	Trade secret	78-87
Organic Pigment	Trade secret	6-9
Wax	Trade secret	4-7
Amorphous Silica	7631-86-9	3-6
Titanium dioxide	13463-67-7	0.1-0.9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

- IN CASE OF EYE CONTACT** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. After initial flushing, remove any contact lenses and continue flushing. Get medical attention/advice if irritation occurs.
- IN CASE OF SKIN CONTACT** : Gently wash with plenty of soap and water.
If concerned: Get medical attention/advice.
- IN CASE OF INHALATION** : Move to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- IN CASE OF INGESTION** : Wash out mouth with water. If material has been swallowed, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA** : Use water spray, foam, dry chemical or powder extinguishing media.
- NOT SUITABLE EXTINGUISHING MEDIA** : Do not use a solid water streams.
- SPECIAL HAZARDS** : There have possibilities to generate irritating or toxic gases.
- ADVICE FOR FIREFIGHTERS** : Keep away from sources of ignition and use the appropriate extinguishing media. Fight fire from upwind position if possible.
- PROTECTION OF FIREFIGHTERS** : Use appropriate protective equipment, goggles, dust mask, and another protections depending on the situation.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE**

- : - Avoid breathing dust.
- Use appropriate protective equipment, mask, goggles, protective gloves...etc
- When large spills, evacuate person to safe place.
- Provide adequate ventilation.
- Operate from upwind position.

ENVIRONMENTAL PRECAUTIONS

- : - Avoid dispersal of spilled material.
- Do not discharge into drains, waterways and sewers directly.

METHODS FOR CLEANING UP

- : Vacuum up or sweep up the spilled material and collect in suitable container for disposal. Use spark-proof tools and explosion-proof equipment.

PREVENTION OF SECONDARY HAZARDS

- : No information available.

7. HANDLING AND STORAGE**HANDLING**

TECHNICAL MEASURES : No special equipment are necessity for operating under usual conditions.

PRECAUTIONS : - Avoid inhalation of fine dust.
 - Keep away from excessive heat, sparks and open flames.
 - Keep cartridge (material) out of reach of children.

SAFE HANDLING ADVICE : - Provide adequate ventilation.
 - Wash hands after handling.
 - Use appropriate protective equipment as required.

STORAGE**SUITABLE STORAGE CONDITIONS**

- : - Store in hermetically-sealed container.
- Protected from direct sunlight in a dry, cool and well-ventilated area.
- Do not store above the following temperature: 35°C.

SAFE PACKAGING MATERIALS : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : No special equipment are necessity for operating under usual conditions. Use local exhaust ventilation, in the case of dust discharging.

LIMIT VALUES

ACGIH (TLV) : Toner : 10mg/m³ TWA (inhalable particles, recommended);
 3mg/m³ TWA (respirable particles, recommended)
 Amorphous Silica : TWA 10mg/m³
 Titanium Dioxide : 10mg/m³ TLV

OSHA (PEL)	: Toner : 15mg/m ³ TWA (total dust); 5mg/m ³ TWA (respirable fraction) Titanium Dioxide : TWA 15mg/m ³
EU OEL	: Not established.
DFG MAK	: Dust (Toner) : 4mg/m ³ (Inhalable fraction) 1.5mg/m ³ (Respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	: Use dust mask up to the situation.
HAND PROTECTION	: Use rubber gloves up to the situation.
EYE PROTECTION	: Use safety glasses or goggles up to the situation.
SKIN AND BODY PROTECTION	: Wear protective suit up to the situation.
HYGIENE MEASURES	: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL STATES**

FORM	: Fine solid Powder.
COLOUR	: Yellow.
ODOUR	: Odourless.
Ph VALUE	: Not applicable.

SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT	: No information available.
MELTING POINT	: 110 - 150 degree (Softening point)
FLASH POINT	: Not applicable.

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS	: UPPER LIMIT : No information available. LOWER LIMIT : No information available.
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VAPOUR PRESSURE : Not applicable.

VAPOUR DENSITY : Not applicable.

SPECIFIC GRAVITY (DENSITY) : 1.1 - 1.5

SOLUBILITY

WATER SOLUBILITY : Insoluble.

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

PARTITION COEFFICIENT

n-OCTANOL / WATER (log Pow) : No information available.

AUTO-IGNITION TEMPERATURE : No information available.

ODOUR THRESHOLD : No information available.

EVAPORATION RATE : No information available.

FLAMMABILITY (SOLD, GAS) : No information available.

VISCOSITY : No information available.

OTHER DATA : No information available.

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 powders.

10. STABILITY AND REACTIVITY

REACTIVITY : Low reactivity.

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS

: None under normal processing. Hazardous Polymerization will not occur.

CONDITIONS TO AVOID : Electric discharge, throwing into fire.

INCOMPATIBLE MATERIALS : The product should be kept away from oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and carbon dioxide.

OTHERS : No information available.

11. SUPPLEMENTAL HEALTH INFORMATION

Acute oral toxicity : LD50 is greater than 2,000mg/kg.

(This was the highest attainable mass.)

Acute inhalation : LC50 (4H) is in excess of 5.06mg/l.

(This was the highest attainable concentration.)

Eye irritation : Mildly irritating. Not classified by GHS.

Skin irritation : Mildly irritating. Not classified by GHS.

Skin sensitization : Non-sensitizer.

Mutagenicity : Negative in the Ames test.

Carcinogenicity : The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans). 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 have not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

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 (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/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.

OTHER INFORMATION : No information available.

12. ECOLOGICAL INFORMATION

Aquatic environment : LC50 is greater than 100mg/L (fish).

: EC50 is greater than 100mg/L (daphnia).

: EbC50 is greater than 100mg/L (Algal).

(This was the highest attainable mass.)

PERSISTENCE / DEGRADABILITY : No information available.

MOBILITY IN SOIL : No information available.

BIOACCUMULATIVE POTENTIAL : No information available.

OTHER ADVERSE EFFECTS : No information available.

13. DISPOSAL CONSIDERATION

Review "HANDLING AND STORAGE (Section7)".

Dispose this article comply with the regulations of each countries.

14. TRANSPORTATION INFORMATION

Special Precautions : None.

International Transport Information

UN Classification Number : Not applicable.
 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.

15. REGULATORY INFORMATION

US/Canada Information

OSHA Hazard Communication Standard, 29CFR 1910. 1200

: Not regulated.

Toxic Substance Control Act (TSCA)

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

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.

California Proposition 65

: Neither toner, or any of the components, are listed as chemicals known to the State of California to cause cancer or reproductive system effects.

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.

Other State Regulations

: Not listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./Canada Label Statements

: **LOW HAZARD FOR RECOMMENDED HANDLING.**
 Minimize dust generation and accumulation. Use with adequate ventilation.

EU Information

Label Information According to Directives 67/548 EEC & 1999/45 EC

Symbol & Indication : Not required.

Risk Phrase : Not required.

Safety Advise Phrase : Not required.

76/769/EEC

: All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

National requirement

: No specific regulations or restrictions.

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

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

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Classification.**

Flammability : 1

Reactivity : 0

Health : 0

(0 = insignificant, 1 = slight)

Hazardous Materials Information Systems (HMIS).

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 0

(0 = insignificant, 1 = slight)

Notice : Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Oki Data Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

Abbreviation : (1) OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA).
(2) ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA).
(3) DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
(4) TWA stands for Time Weighted Average.
(5) NTP stands for National Toxicology Program (USA).
(6) NIOSH stands for National Institute for Occupational Safety and Health (USA).
(7) DOT stands for Department of Transportation (USA).
(8) NOHSC stands for National Occupational Health and Safety Commission (Australia).

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Magenta toner (cartridge) for
 ES9455MFP (Toner powder name : T-FC30U-M)
Manufacturer : Oki Data Corporation
 : 3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 JAPAN.
 Tel : +81-27-328-6366, Fax : +81-27-328-6396
Supplier : Oki (Europe) Ltd.
 1 Oki Way, Wardpark, Cumbernauld G68 0FQ, SCOTLAND, UK.
 Tel. : +44(0) 1236 502502
Emergency Telephone. No. : +44(0) 1236 502502
Emergency e-mail contact : MSDSQuestion@okieurope.com

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION****PHYSICAL AND CHEMICAL HAZARDS**

EXPLOSIVES : Not classified.
FLAMMABLE GASES : Not applicable.
FLAMMABLE AEROSOLS : Not applicable.
OXIDIZING GASES : Not applicable.
GASES UNDER PRESSURE : Not applicable.
FLAMMABLE LIQUIDS : Not applicable.
FLAMMABLE SOLIDS : Not classified.
SELF-REACTIVE MIXTURES : Not classified.
PYROPHORIC LIQUIDS : Not applicable.
PYROPHORIC SOLIDS : Not classified.
SELF-HEATING MIXTURES : Not classified.
OXIDIZING LIQUIDS : Not classified.
OXIDIZING SOLIDS : Not classified.
ORGANIC PEROXIDES : Not classified.
CORROSIVE TO METALS : Not classified.

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified.
ACUTE TOXICITY (Dermal) : Classification not possible.
ACUTE TOXICITY (Inhalation-Gas) : Not applicable.
ACUTE TOXICITY (Inhalation-Vapor) : Classification not possible.
ACUTE TOXICITY (Inhalation-Dust) : Not classified.
SKIN CORROSION / IRRITATION : Not classified.
SERIOUS EYE DAMAGE / EYE IRRITATION : Classification not possible.
RESPIRATORY SENSITIZATION : Classification not possible.
SKIN SENSITIZATION : Not classified.
GERM CELL MUTAGENICITY : Classification not possible.
CARCINOGENICITY : Classification not possible.
REPRODUCTIVE TOXICITY : Classification not possible.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY
- SINGLE EXPOSURE : Classification not possible.
- REPEATED EXPOSURE : Classification not possible.
ASPIRATION HAZARD : Classification not possible.

ENVIRONMENTAL HAZARDS**HAZARDOUS TO THE AQUATIC ENVIRONMENT**

- ACUTE TOXICITY : Not classified.
- CHRONIC TOXICITY : Classification not possible.

GHS LABEL ELEMENTS : Not applicable.

OTHER HAZARDS

DUST EXPLOSIBILITY : The potential dust explosion level equivalent to common powder (See the section 9).

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

<u>INGREDIENT(S)</u>	<u>CAS No.</u>	<u>Concentration Range(wt%)</u>
Polyester resin	Trade secret	78-87
Organic Pigment	Trade secret	6-9
Wax	Trade secret	4-7
Amorphous Silica	7631-86-9	3-6
Titanium dioxide	13463-67-7	0.1-0.9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

- IN CASE OF EYE CONTACT** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. After initial flushing, remove any contact lenses and continue flushing. Get medical attention/advice if irritation occurs.
- IN CASE OF SKIN CONTACT** : Gently wash with plenty of soap and water.
If concerned: Get medical attention/advice.
- IN CASE OF INHALATION** : Move to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- IN CASE OF INGESTION** : Wash out mouth with water. If material has been swallowed, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA** : Use water spray, foam, dry chemical or powder extinguishing media.
- NOT SUITABLE EXTINGUISHING MEDIA** : Do not use a solid water streams.
- SPECIAL HAZARDS** : There have possibilities to generate irritating or toxic gases.
- ADVICE FOR FIREFIGHTERS** : Keep away from sources of ignition and use the appropriate extinguishing media. Fight fire from upwind position if possible.
- PROTECTION OF FIREFIGHTERS** : Use appropriate protective equipment, goggles, dust mask, and another protections depending on the situation.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE**

- : - Avoid breathing dust.
- Use appropriate protective equipment, mask, goggles, protective gloves...etc
- When large spills, evacuate person to safe place.
- Provide adequate ventilation.
- Operate from upwind position.

ENVIRONMENTAL PRECAUTIONS

- : - Avoid dispersal of spilled material.
- Do not discharge into drains, waterways and sewers directly.

METHODS FOR CLEANING UP

- : Vacuum up or sweep up the spilled material and collect in suitable container for disposal. Use spark-proof tools and explosion-proof equipment.

PREVENTION OF SECONDARY HAZARDS

- : No information available.

7. HANDLING AND STORAGE**HANDLING**

TECHNICAL MEASURES : No special equipment are necessity for operating under usual conditions.

PRECAUTIONS : - Avoid inhalation of fine dust.
 - Keep away from excessive heat, sparks and open flames.
 - Keep cartridge (material) out of reach of children.

SAFE HANDLING ADVICE : - Provide adequate ventilation.
 - Wash hands after handling.
 - Use appropriate protective equipment as required.

STORAGE**SUITABLE STORAGE CONDITIONS**

- : - Store in hermetically-sealed container.
- Protected from direct sunlight in a dry, cool and well-ventilated area.
- Do not store above the following temperature: 35°C.

SAFE PACKAGING MATERIALS : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : No special equipment are necessity for operating under usual conditions. Use local exhaust ventilation, in the case of dust discharging.

LIMIT VALUES

ACGIH (TLV) : Toner : 10mg/m³ TWA (inhalable particles, recommended);
 3mg/m³ TWA (respirable particles, recommended)
 Amorphous Silica : TWA 10mg/m³
 Titanium Dioxide : 10mg/m³ TLV

OSHA (PEL)	: Toner : 15mg/m ³ TWA (total dust); 5mg/m ³ TWA (respirable fraction) Titanium Dioxide : TWA 15mg/m ³
EU OEL	: Not established.
DFG MAK	: Dust (Toner) : 4mg/m ³ (Inhalable fraction) 1.5mg/m ³ (Respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	: Use dust mask up to the situation.
HAND PROTECTION	: Use rubber gloves up to the situation.
EYE PROTECTION	: Use safety glasses or goggles up to the situation.
SKIN AND BODY PROTECTION	: Wear protective suit up to the situation.
HYGIENE MEASURES	: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL STATES**

FORM	: Fine solid Powder.
COLOUR	: Magenta.
ODOUR	: Odourless.
Ph VALUE	: Not applicable.

SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT	: No information available.
MELTING POINT	: 110 - 150 degree (Softening point)
FLASH POINT	: Not applicable.

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS	: UPPER LIMIT : No information available. LOWER LIMIT : No information available.
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VAPOUR PRESSURE : Not applicable.

VAPOUR DENSITY : Not applicable.

SPECIFIC GRAVITY (DENSITY) : 1.1 - 1.5

SOLUBILITY

WATER SOLUBILITY : Insoluble.

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

PARTITION COEFFICIENT

n-OCTANOL / WATER (log Pow) : No information available.

AUTO-IGNITION TEMPERATURE : No information available.

ODOUR THRESHOLD : No information available.

EVAPORATION RATE : No information available.

FLAMMABILITY (SOLD, GAS) : No information available.

VISCOSITY : No information available.

OTHER DATA : No information available.

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 powders.

10. STABILITY AND REACTIVITY

REACTIVITY : Low reactivity.

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS

: None under normal processing. Hazardous Polymerization will not occur.

CONDITIONS TO AVOID : Electric discharge, throwing into fire.

INCOMPATIBLE MATERIALS : The product should be kept away from oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and carbon dioxide.

OTHERS : No information available.

11. SUPPLEMENTAL HEALTH INFORMATION

Acute oral toxicity : LD50 is greater than 2,000mg/kg.

(This was the highest attainable mass.)

Acute inhalation : LC50 (4H) is in excess of 5.04mg/l.

(This was the highest attainable concentration.)

Eye irritation : Minimum irritating. Not classified by GHS.

Skin irritation : Non-irritating. Not classified by GHS.

Skin sensitization : Non-sensitizer.

Mutagenicity : Negative in the Ames test.

Carcinogenicity : The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans). 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 have not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

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 (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/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.

OTHER INFORMATION : No information available.

12. ECOLOGICAL INFORMATION

Aquatic environment : LC50 is greater than 100mg/L (fish).

: EC50 is greater than 100mg/L (daphnia).

: EbC50 is greater than 100mg/L (Algal).

(This was the highest attainable mass.)

PERSISTENCE / DEGRADABILITY : No information available.

MOBILITY IN SOIL : No information available.

BIOACCUMULATIVE POTENTIAL : No information available.

OTHER ADVERSE EFFECTS : No information available.

13. DISPOSAL CONSIDERATION

Review "HANDLING AND STORAGE (Section7)".

Dispose this article comply with the regulations of each countries.

14. TRANSPORTATION INFORMATION

Special Precautions : None.

International Transport Information

UN Classification Number : Not applicable.
 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.

15. REGULATORY INFORMATION

US/Canada Information

OSHA Hazard Communication Standard, 29CFR 1910. 1200

: Not regulated.

Toxic Substance Control Act (TSCA)

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

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.

California Proposition 65

: Neither toner, or any of the components, are listed as chemicals known to the State of California to cause cancer or reproductive system effects.

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.

Other State Regulations

: Not listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./Canada Label Statements

: **LOW HAZARD FOR RECOMMENDED HANDLING.**
 Minimize dust generation and accumulation. Use with adequate ventilation.

EU Information

Label Information According to Directives 67/548 EEC & 1999/45 EC

Symbol & Indication : Not required.

Risk Phrase : Not required.

Safety Advise Phrase : Not required.

76/769/EEC

: All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

National requirement

: No specific regulations or restrictions.

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

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

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Classification.**

Flammability : 1

Reactivity : 0

Health : 0

(0 = insignificant, 1 = slight)

Hazardous Materials Information Systems (HMIS).

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 0

(0 = insignificant, 1 = slight)

Notice : Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Oki Data Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

Abbreviation : (1) OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA).
(2) ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA).
(3) DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
(4) TWA stands for Time Weighted Average.
(5) NTP stands for National Toxicology Program (USA).
(6) NIOSH stands for National Institute for Occupational Safety and Health (USA).
(7) DOT stands for Department of Transportation (USA).
(8) NOHSC stands for National Occupational Health and Safety Commission (Australia).

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Cyan toner (cartridge) for
 ES9455MFP (Toner powder name : T-FC30U-C)
Manufacturer : Oki Data Corporation
 : 3-1 Futaba-cho, Takasaki-shi, Gunma. 370-8585 JAPAN.
 Tel : +81-27-328-6366, Fax : +81-27-328-6396
Supplier : Oki (Europe) Ltd.
 1 Oki Way, Wardpark, Cumbernauld G68 0FQ, SCOTLAND, UK.
 Tel. : +44(0) 1236 502502
Emergency Telephone. No. : +44(0) 1236 502502
Emergency e-mail contact : MSDSQuestion@okieurope.com

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION****PHYSICAL AND CHEMICAL HAZARDS**

EXPLOSIVES : Not classified.
FLAMMABLE GASES : Not applicable.
FLAMMABLE AEROSOLS : Not applicable.
OXIDIZING GASES : Not applicable.
GASES UNDER PRESSURE : Not applicable.
FLAMMABLE LIQUIDS : Not applicable.
FLAMMABLE SOLIDS : Not classified.
SELF-REACTIVE MIXTURES : Not classified.
PYROPHORIC LIQUIDS : Not applicable.
PYROPHORIC SOLIDS : Not classified.
SELF-HEATING MIXTURES : Not classified.
OXIDIZING LIQUIDS : Not classified.
OXIDIZING SOLIDS : Not classified.
ORGANIC PEROXIDES : Not classified.
CORROSIVE TO METALS : Not classified.

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified.
ACUTE TOXICITY (Dermal) : Classification not possible.
ACUTE TOXICITY (Inhalation-Gas) : Not applicable.
ACUTE TOXICITY (Inhalation-Vapor) : Classification not possible.
ACUTE TOXICITY (Inhalation-Dust) : Not classified.
SKIN CORROSION / IRRITATION : Not classified.
SERIOUS EYE DAMAGE / EYE IRRITATION : Classification not possible.
RESPIRATORY SENSITIZATION : Classification not possible.
SKIN SENSITIZATION : Not classified.
GERM CELL MUTAGENICITY : Classification not possible.
CARCINOGENICITY : Classification not possible.
REPRODUCTIVE TOXICITY : Classification not possible.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY
- SINGLE EXPOSURE : Classification not possible.
- REPEATED EXPOSURE : Classification not possible.
ASPIRATION HAZARD : Classification not possible.

ENVIRONMENTAL HAZARDS**HAZARDOUS TO THE AQUATIC ENVIRONMENT**

- ACUTE TOXICITY : Not classified.
- CHRONIC TOXICITY : Classification not possible.

GHS LABEL ELEMENTS : Not applicable.

OTHER HAZARDS

DUST EXPLOSIBILITY : The potential dust explosion level equivalent to common powder (See the section 9).

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

<u>INGREDIENT(S)</u>	<u>CAS No.</u>	<u>Concentration Range(wt%)</u>
Polyester resin	Trade secret	78-87
Organic Pigment	Trade secret	6-9
Wax	Trade secret	4-7
Amorphous Silica	7631-86-9	3-6
Titanium dioxide	13463-67-7	0.1-0.9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

- IN CASE OF EYE CONTACT** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. After initial flushing, remove any contact lenses and continue flushing. Get medical attention/advice if irritation occurs.
- IN CASE OF SKIN CONTACT** : Gently wash with plenty of soap and water.
If concerned: Get medical attention/advice.
- IN CASE OF INHALATION** : Move to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- IN CASE OF INGESTION** : Wash out mouth with water. If material has been swallowed, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA** : Use water spray, foam, dry chemical or powder extinguishing media.
- NOT SUITABLE EXTINGUISHING MEDIA** : Do not use a solid water streams.
- SPECIAL HAZARDS** : There have possibilities to generate irritating or toxic gases.
- ADVICE FOR FIREFIGHTERS** : Keep away from sources of ignition and use the appropriate extinguishing media. Fight fire from upwind position if possible.
- PROTECTION OF FIREFIGHTERS** : Use appropriate protective equipment, goggles, dust mask, and another protections depending on the situation.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE**

- : - Avoid breathing dust.
- Use appropriate protective equipment, mask, goggles, protective gloves...etc
- When large spills, evacuate person to safe place.
- Provide adequate ventilation.
- Operate from upwind position.

ENVIRONMENTAL PRECAUTIONS

- : - Avoid dispersal of spilled material.
- Do not discharge into drains, waterways and sewers directly.

METHODS FOR CLEANING UP

- : Vacuum up or sweep up the spilled material and collect in suitable container for disposal. Use spark-proof tools and explosion-proof equipment.

PREVENTION OF SECONDARY HAZARDS

- : No information available.

7. HANDLING AND STORAGE**HANDLING**

TECHNICAL MEASURES : No special equipment are necessity for operating under usual conditions.

PRECAUTIONS : - Avoid inhalation of fine dust.
 - Keep away from excessive heat, sparks and open flames.
 - Keep cartridge (material) out of reach of children.

SAFE HANDLING ADVICE : - Provide adequate ventilation.
 - Wash hands after handling.
 - Use appropriate protective equipment as required.

STORAGE**SUITABLE STORAGE CONDITIONS**

- : - Store in hermetically-sealed container.
- Protected from direct sunlight in a dry, cool and well-ventilated area.
- Do not store above the following temperature: 35°C.

SAFE PACKAGING MATERIALS : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : No special equipment are necessity for operating under usual conditions. Use local exhaust ventilation, in the case of dust discharging.

LIMIT VALUES

ACGIH (TLV) : Toner : 10mg/m³ TWA (inhalable particles, recommended);
 3mg/m³ TWA (respirable particles, recommended)
 Amorphous Silica : TWA 10mg/m³
 Titanium Dioxide : 10mg/m³ TLV

OSHA (PEL)	: Toner : 15mg/m ³ TWA (total dust); 5mg/m ³ TWA (respirable fraction) Titanium Dioxide : TWA 15mg/m ³
EU OEL	: Not established.
DFG MAK	: Dust (Toner) : 4mg/m ³ (Inhalable fraction) 1.5mg/m ³ (Respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	: Use dust mask up to the situation.
HAND PROTECTION	: Use rubber gloves up to the situation.
EYE PROTECTION	: Use safety glasses or goggles up to the situation.
SKIN AND BODY PROTECTION	: Wear protective suit up to the situation.
HYGIENE MEASURES	: No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL STATES**

FORM	: Fine solid Powder.
COLOUR	: Cyan.
ODOUR	: Odourless.
Ph VALUE	: Not applicable.

SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT	: No information available.
MELTING POINT	: 110 - 150 degree (Softening point)
FLASH POINT	: Not applicable.

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS	: UPPER LIMIT : No information available. LOWER LIMIT : No information available.
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VAPOUR PRESSURE : Not applicable.

VAPOUR DENSITY : Not applicable.

SPECIFIC GRAVITY (DENSITY) : 1.1 - 1.5

SOLUBILITY

WATER SOLUBILITY : Insoluble.

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

PARTITION COEFFICIENT

n-OCTANOL / WATER (log Pow) : No information available.

AUTO-IGNITION TEMPERATURE : No information available.

ODOUR THRESHOLD : No information available.

EVAPORATION RATE : No information available.

FLAMMABILITY (SOLD, GAS) : No information available.

VISCOSITY : No information available.

OTHER DATA : No information available.

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 powders.

10. STABILITY AND REACTIVITY

REACTIVITY : Low reactivity.

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS

: None under normal processing. Hazardous Polymerization will not occur.

CONDITIONS TO AVOID : Electric discharge, throwing into fire.

INCOMPATIBLE MATERIALS : The product should be kept away from oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and carbon dioxide.

OTHERS : No information available.

11. SUPPLEMENTAL HEALTH INFORMATION

Acute oral toxicity : LD50 is greater than 2,000mg/kg.

(This was the highest attainable mass.)

Acute inhalation : LC50 (4H) is in excess of 5.03mg/l.

(This was the highest attainable concentration.)

Eye irritation : Mildly irritating. Not classified by GHS.

Skin irritation : Mildly irritating. Not classified by GHS.

Skin sensitization : Non-sensitizer.

Mutagenicity : Negative in the Ames test.

Carcinogenicity : The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans). 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 have not revealed any evidence of the relation between work exposure of titanium dioxide and respiratory diseases.

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 (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/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.

OTHER INFORMATION : No information available.

12. ECOLOGICAL INFORMATION

Aquatic environment : LC50 is greater than 100mg/L (fish).

: EC50 is greater than 100mg/L (daphnia).

: EbC50 is greater than 100mg/L (Algal).

(This was the highest attainable mass.)

PERSISTENCE / DEGRADABILITY : No information available.

MOBILITY IN SOIL : No information available.

BIOACCUMULATIVE POTENTIAL : No information available.

OTHER ADVERSE EFFECTS : No information available.

13. DISPOSAL CONSIDERATION

Review "HANDLING AND STORAGE (Section7)".

Dispose this article comply with the regulations of each countries.

14. TRANSPORTATION INFORMATION

Special Precautions : None.

International Transport Information

UN Classification Number : Not applicable.
 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.

15. REGULATORY INFORMATION

US/Canada Information

OSHA Hazard Communication Standard, 29CFR 1910. 1200

: Not regulated.

Toxic Substance Control Act (TSCA)

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

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.

California Proposition 65

: Neither toner, or any of the components, are listed as chemicals known to the State of California to cause cancer or reproductive system effects.

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.

Other State Regulations

: Not listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./Canada Label Statements

: **LOW HAZARD FOR RECOMMENDED HANDLING.**
 Minimize dust generation and accumulation. Use with adequate ventilation.

EU Information

Label Information According to Directives 67/548 EEC & 1999/45 EC

Symbol & Indication : Not required.

Risk Phrase : Not required.

Safety Advise Phrase : Not required.

76/769/EEC

: All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

National requirement

: No specific regulations or restrictions.

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

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

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Classification.**

Flammability : 1

Reactivity : 0

Health : 0

(0 = insignificant, 1 = slight)

Hazardous Materials Information Systems (HMIS).

Red (Flammability) : 1

Yellow (Reactivity) : 0

Blue (Acute Effects) : 0

(0 = insignificant, 1 = slight)

Notice : Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Oki Data Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

Abbreviation : (1) OSHA PEL stands for Permissible Exposure Limit under Occupational Safety and Health Administration (USA).
(2) ACGIH TLV stands for Threshold Limit Value under American Conference of Governmental Industrial Hygienists (USA).
(3) DFG-MAK stands for Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
(4) TWA stands for Time Weighted Average.
(5) NTP stands for National Toxicology Program (USA).
(6) NIOSH stands for National Institute for Occupational Safety and Health (USA).
(7) DOT stands for Department of Transportation (USA).
(8) NOHSC stands for National Occupational Health and Safety Commission (Australia).