SAFETY DATA SHEET

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SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

Product name	:	**Black Toner powder (cartridge) for Pro9541WT (Toner powder name : OKT5K)**
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 Data Americas, Inc. 8505 Freeport Pkwy, Suite 600 Irving, TX 75063, USA Tel. +1-856-235-2600**
EMERGENCY TELEPHONE NUMBER:		**Tel. +1-856-235-2600**

2. Hazards identification

GHS Classification

Physical 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	:	**Classification not possible**
Self-reactive substances and mixtures	:	**Classification not possible**
Pyrophoric liquids	:	**Not applicable**
Pyrophoric solids	:	**Classification not possible**
Self-heating substances and mixtures	:	**Classification not possible**
Substances and mixtures, which in contact with water, emit flammable gases	:	**Classification not possible**
Oxidizing liquids	:	**Not applicable**
Oxidizing solids	:	**Classification not possible**
Organic peroxides	:	**Classification not possible**
Corrosive to metals	:	**Classification not possible**

Health Hazards

Acute toxicity (oral)	:	**Not classified**
Acute toxicity (dermal)	:	**Not classified**
Acute toxicity (inhalation: dust, mist)	:	**Not classified**
Skin corrosion / irritation	:	**Not classified**
Serious eye damage / eye irritation	:	**Not classified**
Respiratory sensitizer	:	**Classification not possible**
Skin sensitizer	:	**Not classified**
Germ cell mutagenicity	:	**Classification not possible**
Carcinogenicity	:	**Classification not possible**
Toxic to reproduction	:	**Classification not possible**
Specific target organs/systemic toxicity following single exposure	:	**Classification not possible**
Specific target organs/systemic toxicity following repeated exposure	:	**Classification not possible**
Aspiration hazard	:	**Classification not possible**

Environmental Hazards

Hazardous to the aquatic environment (acute)	:	**Classification not possible**
Hazardous to the aquatic environment (chronic)	:	**Classification not possible**

In accordance with GHS classification criteria, this product is not classified as hazardous mixture.

Indication of danger:

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.

[Potential Health Effects]

Ingestion Effects	:	Ingestion is not applicable route of entry for intended use.
Inhalation Effects	:	Minimal respiratory tract irritation may occur with exposure to large amount of toner dust.
Eye Effects	:	Solid or dusts may cause irritation or scratch the surface of eye.
Skin Effects	:	Unlikely to cause skin irritation.

[Environmental Hazards]

No particular hazards known.

3. Composition/information on ingredients

[Composition / Information] : Mixture

Ingredient(s):

Chemical Name/ Generic Name	CAS No.	Proportion (%)	OSHA PEL	ACGIH TLV	Other Limits
Styrene acrylate copolymer	Proprietary	80-90	Not applicable	Not applicable	Not available
Wax	Proprietary	5-15	Not applicable	Not applicable	Not available
Carbon black	1333-86-4	3-10	3.5mg/m3	3.5mg/m3	Not available
Silica	7631-86-9	1-3	20mppcf(*), 80(mg/m3)/%SiO2	Not listed	Not available
Titanium dioxide	13463-67-7	0.1-0.9	15 mg/m3	10 mg/m3	Not available

(*) million particles/cubic foot

[Further Information] : No known.

4. First-aid measures

Ingestion	:	Dilute stomach contents with several glasses of water. Get medical attention if symptoms persist.
Inhalation	:	Move person to fresh air immediately. If symptoms occur, consult a physician.
Eye Contact	:	Immediately flush with large amount of clean water for at least 15 minutes. If irritation persists, consult a physician.
Skin Contact	:	Wash affected areas thoroughly with soap and water. If irritation persists, consult a physician.

5. Fire-fighting measures

Extinguishing Media	:	Water, foam, dry chemical
Special Fire-fighting Procedure	:	Keep personnel removed from and upwind of fire. Wear respiratory protection. Cool container with water spray.
Unusual Fire & Explosion Hazards	:	Toner material, like most organic material in powder form, is capable of creating a dust explosion.

6. Accidental release measures

Spill and Leakage Procedure	:	Wear personal protective equipment as described in Section 8. Avoid breathing dust. Minimize the release of particles. Vacuum or sweep the material into a bag or other sealed container. Dispose of waste toner in accordance with local requirements.
Environmental precautions	:	Do not discharge into drains.

7. Handling and storage

Advise on safe handling and protection against fire	:	Keep material out of reach of children. Avoid inhalation of dust and contact with eyes. Keep away from excessive heat, sparks, and open flames.
Requirements for storage rooms and advice on compatibility	:	Keep out of the reach of children. Keep container closed and store at room temperature. Keep away from strong oxidizers.

8. Exposure controls/personal protection

Occupational Exposure Limits

ACGIH TLV	:	Particulates (Insoluble) Not Otherwise Specified 10mg/m3 (Inhalable Particulate) 3mg/m3 (Respirable Particulate)
OSHA PEL	:	Inert or Nuisance Dust 15mg/m3 (Total dust) 5mg/m3 (Respirable fraction)
Respiratory	:	Dust respiratory mask
Ventilation	:	Good general ventilation should be sufficient under intended use.
Protective Gloves	:	Use leather gloves for hand protection.
Eye Protection	:	Protecting glasses
Other Protective Equipment	:	Not required under intended use.

9. Physical and chemical properties

Appearance and odor	:	Fine powder, black, slight plastic odor.
Density	:	About 1.2g/ cm3
Boiling Point	:	Not applicable
Melting Point	:	Not applicable
Solubility in Water	:	Negligible
Solubility in Other	:	Partially soluble in toluene and THF
Percent Volatile by	:	Not applicable
Flammable Limits	:	Not applicable
Flash Point	:	Not applicable
Log Po/w	:	Not applicable
Explosibility	:	No data available.
Flammability	:	No data available.

10. Stability and reactivity

Stability & Reactivity	:	Stable. Hazardous polymerization will not occur.
Materials to Avoid	:	None
Hazardous Decomposition products	:	Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.

11. Toxicological information

Acute toxicity (oral)	:	LD50 of this product is >5000mg/kg (rat). *1
Acute toxicity (dermal)	:	Acute dermal toxicity : LD50 > 5000mg/kg (rat). *1
Acute toxicity (inhalation: dust,	:	Acute inhalation toxicity : LC50 > 5.10mg/L (rat). *1
Skin corrosion / irritation	:	Based on the result of skin irritation study, this product is classified as a nonirritant to the dermal tissue of the rabbit. *1
Serious eye damage / eye irritation	:	Based on the result of the eye irritation study, this product is classified as a nonirritant to the ocular tissue of the rabbit. *1
Respiratory sensitizer	:	No test data available.
Skin sensitizer	:	Based on the result of the skin sensitization study in mouse, the skin sensitizing potential of this product was considered negative. *1
Germ cell mutagenicity	:	Based on the result of Ames test (Salmonella typhimurium), this product has negative mutagenicity. *1
Carcinogenicity	:	No data available. In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there are inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats. IARC has issued a notice that they will publish a monograph that lists titanium dioxide (TiO_2) as possibly carcinogenic to humans (Group 2B) by inhalation (based solely on animal data). Human epidemiology studies do not suggest an increased risk of cancer in humans for occupational exposure to titanium dioxide. IARC stated that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide.

Toxic to reproduction	:	
Specific target organs/ systemic toxicity following single exposure	:	No test data available.
Specific target organs/ systemic toxicity following repeated exposure	:	Oral : No test data available. Dermal : No test data available. Inhalation : No test data available. In a study in rats of 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. But no pulmonary change was reported in the lowest (1mg/ m3) exposure group, the most relevant level to potential human exposures. The quantity of toner exhausted with the normal use of this product is estimated less than 1mg/m3 per day.
Aspiration hazard	:	No test data available.

No data available for ecological and wastewater treatment (sewage) systems. Avoid spills and dispose of in accordance with applicable laws and regulations.

Aquatic Environment	:	According to acute toxicity test with Medaka (Oryzias latipes), no toxicological symptom was observed in the control and all concentration levels during exposure (96 hours). *1

[Waste From This Product]

Waste material may be dumped or incinerated on condition that meets all country, state and local environmental regulations.
Recommendation: consult with the disposal agency and the relevant authorities; cleansing agent is water.

14. Transport information

[International Transport Information]

:

:

: None

Inventories

ENCS (Japan)	:	Yes	
TSCA (USA)	:	Yes	
EINECS / ELINCS (EU)	:	Yes	
AICS (Australia)	:	Yes	
DSL (Canada)	:	Yes	(NDSL : No)
ECL (Korea)	:	Yes	
PICCS (Philippines)	:	Yes	
IECSC (China)	:	Yes	

All ingredients are registered under the industrial Chemicals (Notification and Assesment) Act 1989 , or under the polymer exemption.
All ingredients are exempt, registered or considered polymer under The Australian Inventory of Chemical Substances (AICS) with Directive NIC504735 : not classified.

Please refer to any other national measures that may be relevant.

16. Other information

[SDS STATUS]

Documents list

*1 In-house data

*2

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SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

Product name : Yellow Toner powder (cartridge) for Pro9541WT
(Toner powder name : OKT6Y)

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 Data Americas, Inc.
8505 Freeport Pkwy, Suite 600 Irving, TX 75063, USA
Tel. +1-856-235-2600

EMERGENCY TELEPHONE NUMBER: Tel. +1-856-235-2600

2. Hazards identification

Classification of the mixture

GHS: Not classified as hazardous.

OSHA Hazard Communication Standard 29 CFR 1910.1200:

Not classified as hazardous in accordance with Appendix A (Health Hazard Criteria) or B (Physical Hazard Criteria) to the Standard.

Label elements (Hazard, Signal words, Hazard statement and Precautionary statements)

GHS: None required.

OSHA Hazard Communication Standard 29 CFR 1910.1200 (Appendix C.4.30):

"Combustible Dust - Warning - May form combustible dust concentrations in air."
"Keep away from all ignition sources including heat, sparks and flame.
Keep container closed.
Prevent dust accumulations to minimize explosion hazard."

These label elements are not required if this mixture (toner) is in cartridges or sealed bottle.
Refer to Section 16 for details.

Other hazards which do not result in classification

Physical hazards

This mixture, like most organic powders, can cause a dust explosion if particles form thick clouds.

Carcinogenicity

This mixture contains titanium dioxide listed by IARC as Group 2B (possibly carcinogenic to humans); however, no significant exposure to titanium dioxide is thought to occur during the use of the product because titanium dioxide is mostly in a bound form in this mixture.

Other information

This mixture complies with the requirements of the RoHS Directive 2011/65/EU and its amendment directives.

3. Composition/information on ingredients

Substance [ ] Mixture [X]

Hazardous ingredients*	CAS No.	% in mixture	TSCA listed/exempted	Classification
None				

* Ingredients hazardous within the meaning of GHS and present above the cut-off level.

Ingredient	CAS No.	% in mixture	TSCA listed/exempted
Styrene acrylate copolymer	NJ TSRN 202775807-6000	80-90	Yes
Wax	NJ TSRN 202775807-6001	5-15	Yes
Pigment	Confidential	3-10	Yes
Amorphous silica	7631-86-9	1-3	Yes
Titanium dioxide	13463-67-7	0.1-0.9	Yes

Refer to Section 8 for the exposure limits and Section 11 for toxicological information.

4. First-aid measures

Immediate medical attention may be required in the unlikely event of extreme inhalation, eye contact or unusual reaction due to physical idiosyncrasy of the person.

Eye Contact:

Do not rub eyes. Immediately rinse with plenty of clean running water until particles are washed out.
If irritation persists, seek medical advice.

Skin Contact:

Wash out particles with plenty of water and soap.
If irritation develops, seek medical advice.

Inhalation:

Provide fresh air immediately.
If symptoms occur, seek medical advice

Ingestion:

Clean mouth out with water.
Drink several glasses of water.
If sickness develops, seek medical advice.

Most important symptoms / effects, acute and delayed

Eye contact: Irritation may occur by mechanical abrasion.
Skin contact: Minimal skin irritation may occur.
Inhalation: Slight irritation of respiratory tract may occur with exposure to large amount of toner dust.
Ingestion: Ingestion is an unlikely route of entry under normal conditions of use.

5. Fire-fighting measures

Suitable extinguishing media: Water, foam, dry chemical

Extinguishing media which shall not be used: None known.

Specific hazards arising from the mixture itself, combustion products, or resulting gases:

Toner, like most organic powders, is capable of creating a dust explosion when particles form thick clouds in the presence of an ignition source.
Carbon monoxide and carbon dioxide are hazardous resulting gases.

Special protective actions for fire-fighters:

Avoid generating dust.
Wear protective equipment such as respiratory apparatus as needed.
Keep away from downwind of the fire.
Keep containers cool with water spray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid dispersal of dust in the air. (Do not clear dust surfaces with compressed air.).
Do not breathe dust.
Wear personal protective equipment as described in Section 8.

Environmental precautions:

Do not discharge into drains, surface or ground water.

Methods and materials for containment and cleaning up:

Eliminate sources of ignition including sparks and flammables.
Nonsparking tools should be used.
Shelter the released material (powder) from wind to avoid dust formation and scattering.
Vacuum or sweep the material into a sealed container. If a vacuum cleaner is used, it must be dust explosion-proof.
Dispose of the material in accordance with Federal/state/local requirements.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Handle in an adequately ventilated area.
Do not breathe dust.
Do not get in eyes or on skin.
Keep away from excessive heat and sources of ignition such as sparks and open flames.
Keep away from strong oxidizers.

Conditions for safe storage, including any incompatibilities

Keep containers closed and store at room temperature.
Keep away from excessive heat and sources of ignition including sparks.
Do not store with strong oxidizers.
Do not use a plastic with a plasticizer (e.g. Polyvinyl chloride) for a container to maintain the integrity of the material.
Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

OSHA PELs (TWA): 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)

ACGIH TLV (TWA) : 10 mg/m3 (Inhalable particulate), 3 mg/m3 (Respirable particulate)

Ingredient	OSHA PELs (TWA)	ACGIH TLV (TWA)
Titanium dioxide Amorphous silica	Total dust 15mg/m3 20 mppcf* or 80/% SiO2 mg/m3 (* million particles per cubic foot)	10mg/m3 Not established

Appropriate engineering controls

Handle in an adequately ventilated area.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion supression system or an oxygen-deficient environment.

Ensure that dust-handling systems such as an exhaust ducts, dust collectors, vessels, and processing equipment are designed in a manner to prevent the escape if dust into the work area (i.e. there is no leakage from the equipment).

Use only appropriately classified electrical equipment and powered industrial trucks.

Individual protection measures, such as personal protective equipment (PPE)

Gloves are recommended.

Protective goggles or safety glasses are recommended.

Personal respiratory mask is not required under normal conditions of the intended use, but a respirator is needed in case of dust formation.

9. Physical and chemical properties

Appearance:	Fine yellow powder
Odor:	None or slight plastic odor
Odor threshold:	No data available
pH:	Not applicable
Melting point/freezing point:	Not applicable
Initial boiling point and boiling range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	No data available.
Upper/lower flammability or explosive limits:	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Relative density :	about 1.2
Solubility:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient:	n-octanol/water No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable

10. Stability and reactivity

Reactivity

No significant reaction will occur with air or water at room temperature.

Chemical Stability

This mixture is stable under normal conditions of use and storage.

Possibility of hazardous reactions

No hazardous polymerization will occur.

Conditions to avoid

Excessive heat

Dust formation

Incompatible materials

Strong oxidizers, which could vigorously oxidize organic materials in this mixture and cause a fire in an extreme case.

Hazardous decomposition products

Carbon monoxide and carbon dioxide when combusted.

11. Toxicological information

According to our test results of this or similar mixture and the information provided by the suppliers about the substances contained in this mixture, seriously damaging effect is not expected when this mixture is treated in accordance with standard industrial practices and Federal/state/local requirements. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Acute toxicity

Oral:

LD50 rat > 5,000 mg/kg

Inhalation:

No test data available.

Dermal:

No test data available.

Skin corrosion/irritation:

No test data available.

Serious eye damage/irritation:

This mixture is classified as a nonirritant.

Respiratory Sensitization

No test data available.

None of the substances in this mixture is classified as a respiratory sensitizer.

Skin sensitization:

Skin sensitizing potential negative (Local Lymph Node Assay)

Germ cell mutagenicity:

Ames test (Salmonella typhimurium, Escherichia coli) negative.

Carcinogenicity:

No test data available.

Titanium dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, inhalation tests of titanium dioxide by Muhle et al. (Reference 2) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide. Titanium oxide in this mixture is within small quantity and mostly in a bound form. Therefore, no significant exposure to titanium dioxide is thought to occur during the use of the product.

Reproductive toxicity:

No test data available.

None of the substances in this mixture is classified for reproductive toxicity.

STOT (Specific Target Organ Toxicity) -single exposure:

No test data available.

STOT – repeated exposure:

No test data available.

Inhalation test of a toner for two years showed no significant carcinogenicity. (Reference 1)

In rats chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lung as well as to persistent inflammatory processes and slight to moderate fibrotic changes in the lungs of rats. In hamsters these effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the experimental animals is attributed to a damage and overload of the lung clearance mechanisms and is called “lung overloading”. This is not an effect specific to toner dust but is generally observed when high concentrations of other, slightly soluble dusts are inhaled.

The lowest-observable-effect-level (LOEL) was 4 mg/m3 and the no-observable-effect-level (NOEL) was 1 mg/m3 in rats. The NOEL was greater than 6 mg/m3 in hamsters. (Reference 2) Toner concentration under the normal use of this product is estimated less than 1 mg/m3.

Aspiration hazard:

No test data available.

12. Ecological information

According to the information provided by the suppliers about the substances contained in this mixture, this mixture is not expected to be harmful to ecology.

12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

None known.

13. Disposal considerations

This mixture may be landfilled or incinerated in compliance with all Federal/state/local provisions.
Do not dump this product into sewers, on the ground, or into any body of water.

14. Transport information

International Transport Information

Not a regulated material under the United State DOT, IMDG, ADR, RID, or ICAO/IATA.

UN number: None
UN proper shipping name: None
Transport hazard class: None
Packing group: Not applicable
Environmental hazard:

Not a marine pollutant according to the IMDG Code.
Not environmentally hazardous according to the UN Model Regulations, ADR, RID or ADN.

Transport in bulk: Not applicable
Special precautions for user in connection with transport:

Do not open or break a container during transportation unless absolutely needed.

15. Regulatory information

United States of America

TSCA: All the substances in this mixture are listed or exempted in accordance with TSCA.
CERCLA Reportable Quantity (40 CFR 117, 302): Not applicable to this mixture.
SARA Title III (EPCRA)

Section 302 (40 CFR 355):

Not applicable to this mixture.

Section 311/312 (40 CFR 370):

Immediate health hazard: No
(All the ingredients of this product are bound within the mixture.)
Chronic health hazard: No
(All the ingredients of this product are bound within the mixture.)
Sudden release of pressure hazard: No
Reactive hazard: No

Section 313 (40 CFR 372):

Not applicable to this mixture.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product is in compliance with the regulation as all ingredients are bound within the mixture.

Please refer to any other Federal/state/local measures that may be relevant.

People's Republic of China

National Standard GB 13690–2009 (China GHS): No label element is required.

Republic of Korea

Industrial Safety and Health Act, Standard for Classification and Labeling of Chemical Substances and Material Safety Data Sheets (MoL Public Notice 2013-37), Toxic Chemicals Control Act, and Regulation for Classification and Labeling of Toxic Chemicals (NIER Public Notice 2008-26): No label element is required.

16. Other information

This document was prepared to comply with the requirements in the United States and may not meet regulatory requirements in other countries.
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.
As stated in Section 2, this mixture is subject to the label element requirement for combustible dust in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (Appendix C.4.30); however, it is not applied if the mixture is in cartridges or sealed bottles which are articles and not expected to release the mixture in powder form under intended use. In "Frequently Asked Questions: Hazard Communication (HAZCOM)" OSHA says, "OSHA has previously stated that intermittent or occasional use of a copying machine does not result in coverage under the rule."

Date of preparation of this revision 9/21/2018

Information on the revision
This document was newly issued in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 and Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the fourth revised edition published by United Nations in 2011.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Accord Europeen Relatif Au Transport Internation Des Marchandises Dangereuses Par Voies De Navigation Interieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
DOT	Department Of Transportation
DSL	(Canada) Domestic Substance List
EC	European Community
EC50	half maximal (50%) Effective Concentration
EINECS	European INventory of Existing Commercial chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS	(Japan) Existing and New Chemical Substances
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-know Act
ErC50	EC50 in terms of reduction of growth rate
EU	European Union
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IC50	half maximal (50%) Inhibitory Concentration
IECSC	Inventory of Existing Chemical Substances produced or imported in China
IMDG	International Maritime Dangerous Goods
KECI	Korea Existing Chemicals Inventory
LD50	Lethal Dose, 50 % kill
MoL	(Korea) Ministry of Labor
NIER	(Korea) National Institute of Environmental Research
NFPA	National Fire Protection Association
NTP	National Toxicology Program
NOEC	Non Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety and Health Administration
PELs	Permissible Exposure Limits
PICCS	Philippines Inventory of Chemicals and Chemical Substances
RID	Règlement International concernant le transport des marchandises Dangereuses par chemin de fer (the international regulations covering transportation of dangerous goods by rail)
RoHS	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
SARA	Superfund Amendments and Reauthorization Act of 1986
SDS	Safety Data Sheet
TSCA	Toxic Substances Control Act
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations

References

(1) "Negative Effect of Long-term Inhalation of Toner on Formation of 8-Hydroxydeoxyguanosine in DNA in the Lungs of Rats in Vivo", Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) 749-753 (2005)

(2) Studies by Muhle, Bellmann, Creutzenberg et al.
"Lung clearance and retention of toner, utilizing a tracer technique during chronic inhalation exposure in rats." Fundam. Appl. Toxicol 17 (1991) p.300-313.
"Lung clearance and retention of toner, TiO2, and crystalline silica, utilizing a tracer technique during chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.731-751.
"Subchronic inhalation study of toner in rats." Inhal. Toxicol. 2 (1990) p.341-360.
"Pulmonary response to toner upon chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299
"Pulmonary response to toner, TiO2 and crystalline silica upon chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.699-729.

OKI Open up your dreams

SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

Product name : Magenta Toner powder (cartridge) for Pro9541WT
(Toner powder name : OKT6M)

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 Data Americas, Inc.
8505 Freeport Pkwy, Suite 600 Irving, TX 75063, USA
Tel. +1-856-235-2600

EMERGENCY TELEPHONE NUMBER: Tel. +1-856-235-2600

2. Hazards identification

Classification of the mixture

GHS: Not classified as hazardous.

OSHA Hazard Communication Standard 29 CFR 1910.1200:

Not classified as hazardous in accordance with Appendix A (Health Hazard Criteria) or B (Physical Hazard Criteria) to the Standard.

Label elements (Hazard, Signal words, Hazard statement and Precautionary statements)

GHS: None required.

OSHA Hazard Communication Standard 29 CFR 1910.1200 (Appendix C.4.30):

"Combustible Dust - Warning - May form combustible dust concentrations in air."
"Keep away from all ignition sources including heat, sparks and flame.
Keep container closed.
Prevent dust accumulations to minimize explosion hazard."

These label elements are not required if this mixture (toner) is in cartridges or sealed bottle.
Refer to Section 16 for details.

Other hazards which do not result in classification

Physical hazards

This mixture, like most organic powders, can cause a dust explosion if particles form thick clouds.

Carcinogenicity

This mixture contains titanium dioxide listed by IARC as Group 2B (possibly carcinogenic to humans); however, no significant exposure to titanium dioxide is thought to occur during the use of the product because titanium dioxide is mostly in a bound form in this mixture.

Other information

This mixture complies with the requirements of the RoHS Directive 2011/65/EU and its amendment directives.

3. Composition/information on ingredients

Substance [ ] Mixture [X]

Hazardous ingredients*	CAS No.	% in mixture	TSCA listed/exempted	Classification
None				

* Ingredients hazardous within the meaning of GHS and present above the cut-off level.

Ingredient	CAS No.	% in mixture	TSCA listed/exempted
Styrene acrylate copolymer	NJ TSRN 202775807-6000	80-90	Yes
Wax	NJ TSRN 202775807-6006	5-15	Yes
Pigment	NJ TSRN 202775807-6003	3-10	Yes
Amorphous silica	7631-86-9	1-3	Yes
Titanium dioxide	13463-67-7	0.1-0.9	Yes

Refer to Section 8 for the exposure limits and Section 11 for toxicological information.

4. First-aid measures

Immediate medical attention may be required in the unlikely event of extreme inhalation, eye contact or unusual reaction due to physical idiosyncrasy of the person.

Eye Contact:

Do not rub eyes. Immediately rinse with plenty of clean running water until particles are washed out.
If irritation persists, seek medical advice.

Skin Contact:

Wash out particles with plenty of water and soap.
If irritation develops, seek medical advice.

Inhalation:

Provide fresh air immediately.
If symptoms occur, seek medical advice

Ingestion:

Clean mouth out with water.
Drink several glasses of water.
If sickness develops, seek medical advice.

Most important symptoms / effects, acute and delayed

Eye contact: Irritation may occur by mechanical abrasion.
Skin contact: Minimal skin irritation may occur.
Inhalation: Slight irritation of respiratory tract may occur with exposure to large amount of toner dust.
Ingestion: Ingestion is an unlikely route of entry under normal conditions of use.

5. Fire-fighting measures

Suitable extinguishing media: Water, foam, dry chemical

Extinguishing media which shall not be used: None known.

Specific hazards arising from the mixture itself, combustion products, or resulting gases:

Toner, like most organic powders, is capable of creating a dust explosion when particles form thick clouds in the presence of an ignition source.
Carbon monoxide and carbon dioxide are hazardous resulting gases.

Special protective actions for fire-fighters:

Avoid generating dust.
Wear protective equipment such as respiratory apparatus as needed.
Keep away from downwind of the fire.
Keep containers cool with water spray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid dispersal of dust in the air. (Do not clear dust surfaces with compressed air.).
Do not breathe dust.
Wear personal protective equipment as described in Section 8.

Environmental precautions:

Do not discharge into drains, surface or ground water.

Methods and materials for containment and cleaning up:

Eliminate sources of ignition including sparks and flammables.
Nonsparking tools should be used.
Shelter the released material (powder) from wind to avoid dust formation and scattering.
Vacuum or sweep the material into a sealed container. If a vacuum cleaner is used, it must be dust explosion-proof.
Dispose of the material in accordance with Federal/state/local requirements.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation.
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Handle in an adequately ventilated area.
Do not breathe dust.
Do not get in eyes or on skin.
Keep away from excessive heat and sources of ignition such as sparks and open flames.
Keep away from strong oxidizers.

Conditions for safe storage, including any incompatibilities

Keep containers closed and store at room temperature.
Keep away from excessive heat and sources of ignition including sparks.
Do not store with strong oxidizers.
Do not use a plastic with a plasticizer (e.g. Polyvinyl chloride) for a container to maintain the integrity of the material.
Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

OSHA PELs (TWA): 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)

ACGIH TLV (TWA) : 10 mg/m3 (Inhalable particulate), 3 mg/m3 (Respirable particulate)

Ingredient	OSHA PELs (TWA)	ACGIH TLV (TWA)
Titanium dioxide Amorphous silica	Total dust 15mg/m3 20 mppcf* or 80/% SiO2 mg/m3 (* million particles per cubic foot)	10mg/m3 Not established

Appropriate engineering controls

Handle in an adequately ventilated area.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion supression system or an oxygen-deficient environment.

Ensure that dust-handling systems such as an exhaust ducts, dust collectors, vessels, and processing equipment are designed in a manner to prevent the escape if dust into the work area (i.e. there is no leakage from the equipment).

Use only appropriately classified electrical equipment and powered industrial trucks.

Individual protection measures, such as personal protective equipment (PPE)

Gloves are recommended.

Protective goggles or safety glasses are recommended.

Personal respiratory mask is not required under normal conditions of the intended use, but a respirator is needed in case of dust formation.

9. Physical and chemical properties

Appearance:	Fine magenta powder
Odor:	None or slight plastic odor
Odor threshold:	No data available
pH:	Not applicable
Melting point/freezing point:	Not applicable
Initial boiling point and boiling range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	No data available.
Upper/lower flammability or explosive limits:	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Relative density :	about 1.2
Solubility:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable

10. Stability and reactivity

Reactivity

No significant reaction will occur with air or water at room temperature.

Chemical Stability

This mixture is stable under normal conditions of use and storage.

Possibility of hazardous reactions

No hazardous polymerization will occur.

Conditions to avoid

Excessive heat

Dust formation

Incompatible materials

Strong oxidizers, which could vigorously oxidize organic materials in this mixture and cause a fire in an extreme case.

Hazardous decomposition products

Carbon monoxide and carbon dioxide when combusted.

11. Toxicological information

According to our test results of this or similar mixture and the information provided by the suppliers about the substances contained in this mixture, seriously damaging effect is not expected when this mixture is treated in accordance with standard industrial practices and Federal/state/local requirements. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Acute toxicity

Oral:

LD50 rat > 5,000 mg/kg (OECD 425) (a similar product)

Inhalation:

No test data available.

Dermal:

No test data available.

Skin corrosion/irritation:

This mixture is classified as a nonirritant to the dermal tissue of rabbit. (OECD 404) (a similar product)

Serious eye damage/irritation:

No test data available.

Respiratory Sensitization

No test data available.

None of the substances in this mixture is classified as a respiratory sensitizer.

Skin sensitization:

Skin sensitizing potential negative (guinea pigs, Magnusson & Kligman's criteria)(OECD 406)(a similar product)

Germ cell mutagenicity:

Ames test (Salmonella typhimurium, Escherichia coli) negative.

Carcinogenicity:

No test data available.

Titanium dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, inhalation tests of titanium dioxide by Muhle et al. (Reference 2) showed no significant carcinogenicity. Moreover, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide. Titanium oxide in this mixture is within small quantity and mostly in a bound form. Therefore, no significant exposure to titanium dioxide is thought to occur during the use of the product.

Reproductive toxicity:

No test data available.

None of the substances in this mixture is classified for reproductive toxicity.

STOT (Specific Target Organ Toxicity) -single exposure:

No test data available.

STOT – repeated exposure:

No test data available.

Inhalation test of a toner for two years showed no significant carcinogenicity. (Reference 1)

In rats chronic exposure to toner concentrations 4 mg/m3 and over lead to an accumulation of particles in the lung as well as to persistent inflammatory processes and slight to moderate fibrotic changes in the lungs of rats. In hamsters these effects were only observed at significantly higher concentrations (> 20 mg/m3). The particle accumulation in the lung tissue of the experimental animals is attributed to a damage and overload of the lung clearance mechanisms and is called “lung overloading”. This is not an effect specific to toner dust but is generally observed when high concentrations of other, slightly soluble dusts are inhaled.

The lowest-observable-effect-level (LOEL) was 4 mg/m3 and the no-observable-effect-level (NOEL) was 1 mg/m3 in rats. The NOEL was greater than 6 mg/m3 in hamsters. (Reference 2) Toner concentration under the normal use of this product is estimated less than 1 mg/m3.

Aspiration hazard:

No test data available.

12. Ecological information

According to the information provided by the suppliers about the substances contained in this mixture, this mixture is not expected to be harmful to ecology.

12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

None known.

13. Disposal considerations

This mixture may be landfilled or incinerated in compliance with all Federal/state/local provisions.
Do not dump this product into sewers, on the ground, or into any body of water.

14. Transport information

International Transport Information

Not a regulated material under the United State DOT, IMDG, ADR, RID, or ICAO/IATA.

UN number: None

UN proper shipping name: None

Transport hazard class: None

Packing group: Not applicable

Environmental hazard:

Not a marine pollutant according to the IMDG Code.

Not environmentally hazardous according to the UN Model Regulations, ADR, RID or ADN.

Transport in bulk: Not applicable

Special precautions for user in connection with transport:

Do not open or break a container during transportation unless absolutely needed.

15. Regulatory information

United States of America

TSCA: All the substances in this mixture are listed or exempted in accordance with TSCA.

CERCLA Reportable Quantity (40 CFR 117, 302): Not applicable to this mixture.

SARA Title III (EPCRA)

Section 302 (40 CFR 355):

Not applicable to this mixture.

Section 311/312 (40 CFR 370):

Immediate health hazard: No

(All the ingredients of this product are bound within the mixture.)

Chronic health hazard: No

(All the ingredients of this product are bound within the mixture.)

Sudden release of pressure hazard: No

Reactive hazard: No

Section 313 (40 CFR 372):

Not applicable to this mixture.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product is in compliance with the regulation as all ingredients are bound within the mixture.

Please refer to any other Federal/state/local measures that may be relevant.

People's Republic of China

National Standard GB 13690–2009 (China GHS): No label element is required.

Republic of Korea

Industrial Safety and Health Act, Standard for Classification and Labeling of Chemical Substances and Material Safety Data Sheets (MoL Public Notice 2013-37), Toxic Chemicals Control Act, and Regulation for Classification and Labeling of Toxic Chemicals (NIER Public Notice 2008-26): No label element is required.

16. Other information

This document was prepared to comply with the requirements in the United States and may not meet regulatory requirements in other countries.
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.
As stated in Section 2, this mixture is subject to the label element requirement for combustible dust in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (Appendix C.4.30); however, it is not applied if the mixture is in cartridges or sealed bottles which are articles and not expected to release the mixture in powder form under intended use. In "Frequently Asked Questions: Hazard Communication (HAZCOM)" OSHA says, "OSHA has previously stated that intermittent or occasional use of a copying machine does not result in coverage under the rule."

Date of preparation of this revision 9/21/2018

Information on the revision
This document was newly issued in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 and Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the fourth revised edition published by United Nations in 2011.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Accord Europeen Relatif Au Transport Internation Des Marchandises Dangereuses Par Voies De Navigation Interieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
DOT	Department Of Transportation
DSL	(Canada) Domestic Substance List
EC	European Community
EC50	half maximal (50%) Effective Concentration
EINECS	European INventory of Existing Commercial chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS	(Japan) Existing and New Chemical Substances
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-know Act
ErC50	EC50 in terms of reduction of growth rate
EU	European Union
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IC50	half maximal (50%) Inhibitory Concentration
IECSC	Inventory of Existing Chemical Substances produced or imported in China
IMDG	International Maritime Dangerous Goods
KECI	Korea Existing Chemicals Inventory
LD50	Lethal Dose, 50 % kill
MoL	(Korea) Ministry of Labor
NIER	(Korea) National Institute of Environmental Research
NFPA	National Fire Protection Association
NTP	National Toxicology Program
NOEC	Non Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety and Health Administration
PELs	Permissible Exposure Limits
PICCS	Philippines Inventory of Chemicals and Chemical Substances
RID	Règlement International concernant le transport des marchandises Dangereuses par chemin de fer (the international regulations covering transportation of dangerous goods by rail)
RoHS	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
SARA	Superfund Amendments and Reauthorization Act of 1986
SDS	Safety Data Sheet
TSCA	Toxic Substances Control Act
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations

References

(1) "Negative Effect of Long-term Inhalation of Toner on Formation of 8-Hydroxydeoxyguanosine in DNA in the Lungs of Rats in Vivo", Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) 749-753 (2005)

(2) Studies by Muhle, Bellmann, Creutzenberg et al.
"Lung clearance and retention of toner, utilizing a tracer technique during chronic inhalation exposure in rats." Fundam. Appl. Toxicol 17 (1991) p.300-313.
"Lung clearance and retention of toner, TiO2, and crystalline silica, utilizing a tracer technique during chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.731-751.
"Subchronic inhalation study of toner in rats." Inhal. Toxicol. 2 (1990) p.341-360.
"Pulmonary response to toner upon chronic inhalation exposure in rats." Fundam. Appl. Toxicol. 17 (1991) p.280-299
"Pulmonary response to toner, TiO2 and crystalline silica upon chronic inhalation exposure in Syrian golden hamsters." Inhal. Toxicol. 10 (1998) p.699-729.

OKI Open up your dreams

SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

Product name	:	Cyan Toner powder (cartridge) for Pro9541WT (Toner powder name : OKT5C)
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 Data Americas, Inc. 8505 Freeport Pkwy, Suite 600 Irving, TX 75063, USA Tel. +1-856-235-2600
EMERGENCY TELEPHONE NUMBER:		Tel. +1-856-235-2600

2. Hazards identification

GHS Classification

Physical 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	:	Classification not possible
Self-reactive substances and mixtures	:	Classification not possible
Pyrophoric liquids	:	Not applicable
Pyrophoric solids	:	Classification not possible
Self-heating substances and mixtures	:	Classification not possible
Substances and mixtures, which in contact with water, emit flammable gases	:	Classification not possible
Oxidizing liquids	:	Not applicable
Oxidizing solids	:	Classification not possible
Organic peroxides	:	Classification not possible
Corrosive to metals	:	Classification not possible

Health Hazards

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Classification not possible
Acute toxicity (inhalation: dust, mist)	:	Classification not possible
Skin corrosion / irritation	:	Not classified
Serious eye damage / eye irritation	:	Classification not possible
Respiratory sensitizer	:	Classification not possible
Skin sensitizer	:	Not classified
Germ cell mutagenicity	:	Classification not possible
Carcinogenicity	:	Classification not possible
Toxic to reproduction	:	Classification not possible
Specific target organs/systemic toxicity following single exposure	:	Classification not possible
Specific target organs/systemic toxicity following repeated exposure	:	Classification not possible
Aspiration hazard	:	Classification not possible

Environmental Hazards

Hazardous to the aquatic environment (acute)	:	Classification not possible
Hazardous to the aquatic environment (chronic)	:	Classification not possible

In accordance with GHS classification criteria, this product is not classified as hazardous mixture.

Indication of danger:

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.

[Potential Health Effects]

Ingestion Effects	:	Ingestion is not applicable route of entry for intended use.
Inhalation Effects	:	Minimal respiratory tract irritation may occur with exposure to large amount of toner dust.
Eye Effects	:	Solid or dusts may cause irritation or scratch the surface of eye.
Skin Effects	:	Unlikely to cause skin irritation.

[Environmental Hazards]

No particular hazards known.

3. Composition/information on ingredients

[Composition / Information] : Mixture

Ingredient(s):

Chemical Name/ Generic Name	CAS No.	Proportion (%)	OSHA PEL	ACGIH TLV	Other Limits
Styrene acrylate copolymer	Proprietary	80-90	Not applicable	Not applicable	Not available
Wax	Proprietary	5-15	Not applicable	Not applicable	Not available
Blue pigment	Proprietary	3-10	Not listed	Not listed	Not available
Silica	7631-86-9	1-3	20mppcf(*), 80(mg/m3)/%SiO2	Not listed	Not available
Titanium dioxide	13463-67-7	0.1-0.9	15 mg/m3	10 mg/m3	Not available

(*) million particles/cubic foot

[Further Information] : No known.

4. First-aid measures

Ingestion	:	Dilute stomach contents with several glasses of water. Get medical attention if symptoms persist.
Inhalation	:	Move person to fresh air immediately. If symptoms occur, consult a physician.
Eye Contact	:	Immediately flush with large amount of clean water for at least 15 minutes. If irritation persists, consult a physician.
Skin Contact	:	Wash affected areas thoroughly with soap and water. If irritation persists, consult a physician.

5. Fire-fighting measures

Extinguishing Media	:	Water, foam, dry chemical
Special Fire-fighting Procedure	:	Keep personnel removed from and upwind of fire. Wear respiratory protection. Cool container with water spray.
Unusual Fire & Explosion Hazards	:	Toner material, like most organic material in powder form, is capable of creating a dust explosion.

6. Accidental release measures

Spill and Leakage Procedure	:	Wear personal protective equipment as described in Section 8. Avoid breathing dust. Minimize the release of particles. Vacuum or sweep the material into a bag or other sealed container. Dispose of waste toner in accordance with local requirements.
Environmental precautions	:	Do not discharge into drains.

7. Handling and storage

Advise on safe handling and protection against fire	:	Keep material out of reach of children. Avoid inhalation of dust and contact with eyes. Keep away from excessive heat, sparks, and open flames.
Requirements for storage rooms and advice on compatibility	:	Keep out of the reach of children. Keep container closed and store at room temperature. Keep away from strong oxidizers.

8. Exposure controls/personal protection

Occupational Exposure Limits

ACGIH TLV	:	Particulates (Insoluble) Not Otherwise Specified 10mg/m3 (Inhalable Particulate) 3mg/m3 (Respirable Particulate)
OSHA PEL	:	Inert or Nuisance Dust 15mg/m3 (Total dust) 5mg/m3 (Respirable fraction)
Respiratory	:	Dust respiratory mask
Ventilation	:	Good general ventilation should be sufficient under intended use.
Protective Gloves	:	Use leather gloves for hand protection.
Eye Protection	:	Protecting glasses
Other Protective Equipment	:	Not required under intended use.

9. Physical and chemical properties

Appearance and odor	:	Fine powder, blue, slight plastic odor.
Density	:	About 1.2g/ cm3
Boiling Point	:	Not applicable
Melting Point	:	Not applicable.
Solubility in Water	:	Negligible
Solubility in Other	:	Partially soluble in toluene and THF
Percent Volatile by	:	Not applicable
Flammable Limits	:	Not applicable
Flash Point	:	Not applicable
Log Po/w	:	Not applicable
Explosibility	:	No data available.
Flammability	:	No data available.

10. Stability and reactivity

Stability & Reactivity	:	Stable. Hazardous polymerization will not occur.
Materials to Avoid	:	None
Hazardous Decomposition products	:	Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.

11. Toxicological information

Acute toxicity (oral)	:	Test result of similar product shows LD50 >5000mg/kg. *1
Acute toxicity (dermal)	:	No test data available.
Acute toxicity (inhalation: dust,	:	No test data available.
Skin corrosion / irritation	:	Based on the result of skin irritation study, this product is classified as a nonirritant to the dermal tissue of the rabbit. *1
Serious eye damage / eye irritation	:	No test data available.
Respiratory sensitizer	:	No test data available.
Skin sensitizer	:	Based on the result of the skin sensitization study in mouse, the skin sensitizing potential of this product was considered negative. *1
Germ cell mutagenicity	:	Based on the result of Ames test (Salmonella typhimurium), this product has negative mutagenicity. *1
Carcinogenicity	:	No data available. IARC has issued a notice that they will publish a monograph that lists titanium dioxide (TiO_2) as possibly carcinogenic to humans (Group 2B) by inhalation (based solely on animal data). Human epidemiology studies do not suggest an increased risk of cancer in humans for occupational exposure to titanium dioxide. IARC stated that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide. IARC stated that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide. No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints. Other ingredients in this product are not classified as any carcinogen. *2
Toxic to reproduction	:	No test data available.

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group. And a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/ m3) exposure group.
But no pulmonary change was reported in the lowest (1mg/ m3) exposure group, the most relevant level to potential human exposures. The quantity of toner exhausted with the normal use of this product is estimated less than 1mg/m3 per day.

Aspiration hazard : No test data available.

No data available for ecological and wastewater treatment (sewage) systems. Avoid spills and dispose of in accordance with applicable laws and regulations.

Aquatic Environment : No data available.

13. Disposal considerations

[Waste From This Product]
Waste material may be dumped or incinerated on condition that meets all country, state and local environmental regulations.
Recommendation: consult with the disposal agency and the relevant authorities; cleansing agent is water.

14. Transport information

[International Transport Information]
UN Number :
Hazards Class :

: None

Inventories

	:	Yes
	:	Yes
	:	Yes
	:	Yes
	:	Yes
ECL (Korea)	:	Yes
PICCS (Philippines)	:	Yes
IECSC (China)	:	Yes

All ingredients are registered under the industrial Chemicals (Notification and Assesment) Act 1989 , or under the polymer exemption.
All ingredients are exempt, registered or considered polymer under The Australian Inventory of Chemical Substances (AICS) with Directive NIC504735 : not classified.

Documents list
*1 In-house data
*2

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of our company. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. Our company assumes no legal responsibility for use of or reliance upon this information.

Product name :

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 Data Americas, Inc.**
8505 Freeport Pkwy, Suite 600 Irving, TX 75063, USA
Tel. +1-856-235-2600

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SKIN AND BODY PROTECTION	**:**	**Full-body suit.**
HYGIENE MEASURES	**:**	**No information available**

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INFORMATION ON INGREDIENTS : **No information available**

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New Zealand information : Hazardous Substances and New Organisms (HSNO) Act 1996 : Silica, Tin compounds.
All ingredients are registered under The industrial Chemicals (Notification and Assesment) Act 1989 , or under the polymer exemption.
All ingredients are exempt, registered or considered polymer under The Australian Inventory of Chemical Substances (AICS).
with Directive NIC504735 : not classified.

Not every regulatory information for each countries can not be identified, please conform and comply regulations
in your country or region, on your own responsibility.

Date of issue : 21/ Sep./2018

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warranties (expressed or implied), nor assumes any liability(including liability for any direct, incidental,consequential, or other damages) with respect to the accuracy or completeness of the information contained herein.
Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions.
Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore.
All materials may present unknown hazards and should be used with appropriate caution.
The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist.