

SAFETY DATA SHEET

Toner Powder (Cartridge) for
C911/C931/C941 Series

Oki Electric Industry Co., Ltd.

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier : Black toner powder (cartridge) for
C911/C931/C941 Series
(Toner powder name: OKT5K)

Recommended use of the mixture and restrictions on use

This mixture is a toner used in electrophotographic copiers/printers.

Manufacturer : Oki Electric Industry Co., Ltd.
1-7-12 Toranomom, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

Supplier Australia : Oki Data (Australia) Pty Ltd.
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2. HAZARD IDENTIFICATION

Classification of the mixture

GHS : Not classified as hazardous.

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

GHS : None required

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 carbon black and titanium dioxide that are listed by IARC as Group 2B (possibly carcinogenic to humans). Titanium dioxide is also classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; however, no significant exposure to either carbon black or titanium dioxide is thought to occur during the use of the product because they are 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.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance[] Mixture [X]

Hazardous ingredients*	CAS Number	% in mixture	AICC listed/exempted	Classification
None				

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

Ingredient	CAS Number or any unique identifier	% in mixture	AICC listed/exempted without specific information requirement
Styrene acrylate copolymer	NJ TSRN 202775807-6000	80-90	Yes
Wax	NJ TSRN 202775807-6006	5-15	Yes
Carbon black	1333-86-4	3-10	Yes
Amorphous silica	7631-86-9	< 5	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.

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5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water, foam, dry chemical
- Extinguishing media which shall not be used** : High pressure media which could cause the formation of a potentially explosible dust-air mixture.
- 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.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

- US 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	Australia OEL* (TWA)	ACGIH TLV (TWA)
Carbon black	3 mg/m ³	Inhalable 3 mg/m ³
Titanium dioxide	10 mg/m ³	10 mg/m ³
Amorphous silica	2 mg/m ³	Not established

* Australia "WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS"

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 suppression 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 of 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Fine black 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	:	1.0-1.5
Solubility	:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available.
Viscosity	:	Not applicable
Particle characteristics	:	Median equivalent diameter 5 to 10 micrometer by volume.

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.

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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)

Inhalation : LC50 rat > 5.36 mg/L (OECD 403)

Dermal : LD50 rat > 5,000 mg/kg (OECD 402)

Skin corrosion/irritation : This mixture is classified as a nonirritant to the dermal tissue of rabbit. (OECD 404)

Serious eye damage/irritation : This mixture is classified as a nonirritant to the ocular tissue of rabbit. (OECD 405)

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) (OECD 429)

Germ cell mutagenicity : Ames test (Salmonella typhimurium, Escherichia coli) negative.

Carcinogenicity : No test data available.
Carbon black is listed by IARC as a group 2B (possibly carcinogenic to humans), but IARC monographs vol. 65 and 93 state that there is inadequate evidence in humans for carcinogenicity of carbon black. Inhalation test of a toner for two years (Reference 1) and studies by Muhle et al. (Reference 2) showed no significant carcinogenicity. In addition IARC monograph vol. 93 states that no significant exposure to carbon black is thought to occur during the use of products in which carbon black is bound to other materials, such as rubber, printing ink or paint. Carbon black in this mixture is in a bound form.
Titanium dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

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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.

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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.

Ecotoxicity	No data available.
Persistence and degradability	No data available .
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
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.

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15. REGULATORY INFORMATION

Safety, health and environmental regulations

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Cwlth) (as amended)

No poisons schedule number is allocated.

- Prohibition or notification/licensing requirements** : There is no applicable prohibition, authorization and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.
- Montreal Protocol (Ozone depleting substances)** : Not applicable
- The Stockholm Convention (Persistent Organic Pollutants)** : Not applicable
- The Rotterdam Convention (Prior Informed Consent)** : Not applicable
- Basel Convention (Hazardous Waste)** : Not applicable
- International Convention for the Prevention of Pollution from Ships (MARPOL)** : Not applicable

Global Inventory

- AIC (Australia)** : All the substances in this mixture are listed or exempted without SIR*.
* Specific Information Requirement.
- TSCA (USA)** : All the substances in this mixture are listed as active or exempted.
- REACH (EU)** : All the substances in this mixture shall be registered for the importers subject to the registration requirements upon notification to Oki Electric Industry Co., Ltd. or exempted.
- ENCS (Japan)** : All the substances in this mixture are listed or exempted.
- PICCS (Philippines)** : All the substances in this mixture are listed or exempted.
- TCSI (Taiwan)** : All the substances in this mixture are listed or exempted.

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

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16. OTHER INFORMATION

The information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Oki Electric Industry Co., Ltd. at the time of preparation of this document.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process. Oki Electric Industry Co., Ltd. assumes no legal responsibility for use of or reliance upon this information.

This document was prepared to comply with the requirements in Australia and may not meet regulatory requirements in other countries.

Information on the revision

Newly issued in accordance with Australia Code of Practice "Preparation of SDS for Hazardous Chemicals" and Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the ninth revised edition published by United Nations in 2021.

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 europeen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AIIC	Australian Inventory of Industrial Chemicals
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

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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
TCSI	Taiwan Chemical Substance Inventory
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. 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.

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1. IDENTIFICATION

Product identifier : Yellow toner powder (cartridge) for C911/C931/C941 Series
(Toner powder name: OKT5Y)

Recommended use of the mixture and restrictions on use

This mixture is a toner used in electrophotographic copiers/printers.

Manufacturer : Oki Electric Industry Co., Ltd.
1-7-12 Toranomom, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

Supplier Australia : Oki Data (Australia) Pty Ltd.
Level 1, 67 Epping Road, Macquarie Park NSW 2113 Australia
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E-mail: aus-support@oki.com

New Zealand : Oki Data New Zealand
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Ph 0800 654 669
E-mail: aus-support@oki.com

Singapore : Oki Data (Singapore) Pte Ltd.
351 Braddell Road #03-01A, 351 On Braddell, Singapore 579713
Tel: +65 6221 3722
E-mail: odsp-sales@oki.com

2. HAZARD IDENTIFICATION

Classification of the mixture

GHS : Not classified as hazardous.

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

GHS : None required

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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance[] Mixture [X]

Hazardous ingredients*	CAS Number	% in mixture	AICC listed/exempted	Classification
None				

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

Ingredient	CAS Number or any unique identifier	% in mixture	AICC listed/exempted without specific information requirement
Styrene acrylate copolymer	NJ TSRN 202775807-6000	80-90	Yes
Wax	NJ TSRN 202775807-6001	5-15	Yes
Pigment	NJ TSRN 202775807-6004	3-10	Yes
Amorphous silica	7631-86-9	< 5	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.

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5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water, foam, dry chemical
- Extinguishing media which shall not be used** : High pressure media which could cause the formation of a potentially explosible dust-air mixture.
- 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.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

US 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	Australia OEL* (TWA)	ACGIH TLV (TWA)
Titanium dioxide	10 mg/m ³	10 mg/m ³
Amorphous silica	2 mg/m ³	Not established

* Australia "WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS"

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 suppression 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 of 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.

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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	:	1.0-1.5
Solubility	:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available.
Viscosity	:	Not applicable
Particle characteristics	:	Median equivalent diameter 5 to 10 micrometer by volume.

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.

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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)

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)

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. (Local Lymph Node Assay) (OECD 429)

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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

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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.

SAFETY DATA SHEET

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.

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
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.

SAFETY DATA SHEET

15. REGULATORY INFORMATION

Safety, health and environmental regulations

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Cwlth) (as amended)

No poisons schedule number is allocated.

- Prohibition or notification/licensing requirements** : There is no applicable prohibition, authorization and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.
- Montreal Protocol (Ozone depleting substances)** : Not applicable
- The Stockholm Convention (Persistent Organic Pollutants)** : Not applicable
- The Rotterdam Convention (Prior Informed Consent)** : Not applicable
- Basel Convention (Hazardous Waste)** : Not applicable
- International Convention for the Prevention of Pollution from Ships (MARPOL)** : Not applicable

Global Inventory

- AIC (Australia)** : All the substances in this mixture are listed or exempted without SIR*.
* Specific Information Requirement.
- TSCA (USA)** : All the substances in this mixture are listed as active or exempted.
- REACH (EU)** : All the substances in this mixture shall be registered for the importers subject to the registration requirements upon notification to Oki Electric Industry Co., Ltd. or exempted.
- ENCS (Japan)** : All the substances in this mixture are listed or exempted.
- PICCS (Philippines)** : All the substances in this mixture are listed or exempted.
- TCSI (Taiwan)** : All the substances in this mixture are listed or exempted.

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

SAFETY DATA SHEET

16. OTHER INFORMATION

The information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Oki Electric Industry Co., Ltd. at the time of preparation of this document.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process. Oki Electric Industry Co., Ltd. assumes no legal responsibility for use of or reliance upon this information.

This document was prepared to comply with the requirements in Australia and may not meet regulatory requirements in other countries.

Information on the revision

Newly issued in accordance with Australia Code of Practice "Preparation of SDS for Hazardous Chemicals" and Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the ninth revised edition published by United Nations in 2021.

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 europeen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AIIC	Australian Inventory of Industrial Chemicals
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

SAFETY DATA SHEET

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
TCSI	Taiwan Chemical Substance Inventory
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. 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.

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier : Magenta toner powder (cartridge) for C911/C931/C941 Series
(Toner powder name: OKT6M)

Recommended use of the mixture and restrictions on use

This mixture is a toner used in electrophotographic copiers/printers.

Manufacturer : Oki Electric Industry Co., Ltd.
1-7-12 Toranomom, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

Supplier Australia : Oki Data (Australia) Pty Ltd.
Level 1, 67 Epping Road, Macquarie Park NSW 2113 Australia
Tel: 1800 800 140
E-mail: aus-support@oki.com

New Zealand : Oki Data New Zealand
PO Box 303063 North Harbour 0751 New Zealand
Ph 0800 654 669
E-mail: aus-support@oki.com

Singapore : Oki Data (Singapore) Pte Ltd.
351 Braddell Road #03-01A, 351 On Braddell, Singapore 579713
Tel: +65 6221 3722
E-mail: odsp-sales@oki.com

2. HAZARD IDENTIFICATION

Classification of the mixture

GHS : Not classified as hazardous.

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

GHS : None required

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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

SAFETY DATA SHEET

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance[] Mixture [X]

Hazardous ingredients*	CAS Number	% in mixture	AICC listed/exempted	Classification
None				

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

Ingredient	CAS Number or any unique identifier	% in mixture	AICC listed/exempted without specific information requirement
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	< 5	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.

SAFETY DATA SHEET

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water, foam, dry chemical
- Extinguishing media which shall not be used** : High pressure media which could cause the formation of a potentially explosible dust-air mixture.
- 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.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

- US 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	Australia OEL* (TWA)	ACGIH TLV (TWA)
Titanium dioxide	10 mg/m ³	10 mg/m ³
Amorphous silica	2 mg/m ³	Not established

* Australia "WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS"

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 suppression 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 of 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.

SAFETY DATA SHEET

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	:	1.0-1.5
Solubility	:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available.
Viscosity	:	Not applicable
Particle characteristics	:	Median equivalent diameter 5 to 10 micrometer by volume.

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.

SAFETY DATA SHEET

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. (Local Lymph Node Assay) (OECD 429) (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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

SAFETY DATA SHEET

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.

SAFETY DATA SHEET

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.

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
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.

SAFETY DATA SHEET

15. REGULATORY INFORMATION

Safety, health and environmental regulations

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Cwlth) (as amended)

No poisons schedule number is allocated.

- Prohibition or notification/licensing requirements** : There is no applicable prohibition, authorization and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.
- Montreal Protocol (Ozone depleting substances)** : Not applicable
- The Stockholm Convention (Persistent Organic Pollutants)** : Not applicable
- The Rotterdam Convention (Prior Informed Consent)** : Not applicable
- Basel Convention (Hazardous Waste)** : Not applicable
- International Convention for the Prevention of Pollution from Ships (MARPOL)** : Not applicable

Global Inventory

- AIC (Australia)** : All the substances in this mixture are listed or exempted without SIR*.
* Specific Information Requirement.
- TSCA (USA)** : All the substances in this mixture are listed as active or exempted.
- REACH (EU)** : All the substances in this mixture shall be registered for the importers subject to the registration requirements upon notification to Oki Electric Industry Co., Ltd. or exempted.
- ENCS (Japan)** : All the substances in this mixture are listed or exempted.
- PICCS (Philippines)** : All the substances in this mixture are listed or exempted.
- TCSI (Taiwan)** : All the substances in this mixture are listed or exempted.

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

SAFETY DATA SHEET

16. OTHER INFORMATION

The information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Oki Electric Industry Co., Ltd. at the time of preparation of this document.

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Information on the revision

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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 europeen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AIIC	Australian Inventory of Industrial Chemicals
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

SAFETY DATA SHEET

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
TCSI	Taiwan Chemical Substance Inventory
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. 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.

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier : Cyan toner powder (cartridge) for C911/C931/C941 Series
(Toner powder name: OKT5C)

Recommended use of the mixture and restrictions on use

This mixture is a toner used in electrophotographic copiers/printers.

Manufacturer : Oki Electric Industry Co., Ltd.
1-7-12 Toranomom, Minato-ku, Tokyo, 105-8460, Japan
Tel: 03-3501-3111

Supplier Australia : Oki Data (Australia) Pty Ltd.
Level 1, 67 Epping Road, Macquarie Park NSW 2113 Australia
Tel: 1800 800 140
E-mail: aus-support@oki.com

New Zealand : Oki Data New Zealand
PO Box 303063 North Harbour 0751 New Zealand
Ph 0800 654 669
E-mail: aus-support@oki.com

Singapore : Oki Data (Singapore) Pte Ltd.
351 Braddell Road #03-01A, 351 On Braddell, Singapore 579713
Tel: +65 6221 3722
E-mail: odsp-sales@oki.com

2. HAZARD IDENTIFICATION

Classification of the mixture

GHS : Not classified as hazardous.

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

GHS : None required

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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

SAFETY DATA SHEET

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance[] Mixture [X]

Hazardous ingredients*	CAS Number	% in mixture	AICC listed/exempted	Classification
None				

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

Ingredient	CAS Number or any unique identifier	% in mixture	AICC listed/exempted without specific information requirement
Styrene acrylate copolymer	NJ TSRN 202775807-6000	80-90	Yes
Wax	NJ TSRN 202775807-6006	5-15	Yes
Pigment	NJ TSRN 202775807-6002	3-10	Yes
Amorphous silica	7631-86-9	< 5	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.

SAFETY DATA SHEET

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water, foam, dry chemical
- Extinguishing media which shall not be used** : High pressure media which could cause the formation of a potentially explosible dust-air mixture.
- 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.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters (Occupational exposure limit and biological limit values)

Mixture as particulate not otherwise classified

US 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	Australia OEL* (TWA)	ACGIH TLV (TWA)
Titanium dioxide	10 mg/m ³	10 mg/m ³
Amorphous silica	2 mg/m ³	Not established

* Australia "WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS"

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 suppression 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 of 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Fine cyan 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	:	1.0-1.5
Solubility	:	Negligible in water. Partially soluble in some organic solvents such as toluene and tetrahydrofuran.
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available.
Viscosity	:	Not applicable
Particle characteristics	:	Median equivalent diameter 5 to 10 micrometer by volume.

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.

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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)

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)

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. (Local Lymph Node Assay) (OECD 429)

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) and classified as Category 2 for carcinogenicity in accordance with Table 1.1 of Annex VI to Regulation (EC) 1272/2008 in the EU; 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.

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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.

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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.

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
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.

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15. REGULATORY INFORMATION

Safety, health and environmental regulations

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act 1989 (Cwlth) (as amended)

No poisons schedule number is allocated.

- Prohibition or notification/licensing requirements** : There is no applicable prohibition, authorization and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.
- Montreal Protocol (Ozone depleting substances)** : Not applicable
- The Stockholm Convention (Persistent Organic Pollutants)** : Not applicable
- The Rotterdam Convention (Prior Informed Consent)** : Not applicable
- Basel Convention (Hazardous Waste)** : Not applicable
- International Convention for the Prevention of Pollution from Ships (MARPOL)** : Not applicable

Global Inventory

- AIC (Australia)** : All the substances in this mixture are listed or exempted without SIR*.
* Specific Information Requirement.
- TSCA (USA)** : All the substances in this mixture are listed as active or exempted.
- REACH (EU)** : All the substances in this mixture shall be registered for the importers subject to the registration requirements upon notification to Oki Electric Industry Co., Ltd. or exempted.
- ENCS (Japan)** : All the substances in this mixture are listed or exempted.
- PICCS (Philippines)** : All the substances in this mixture are listed or exempted.
- TCSI (Taiwan)** : All the substances in this mixture are listed or exempted.

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

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16. OTHER INFORMATION

The information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Oki Electric Industry Co., Ltd. at the time of preparation of this document.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process. Oki Electric Industry Co., Ltd. assumes no legal responsibility for use of or reliance upon this information.

This document was prepared to comply with the requirements in Australia and may not meet regulatory requirements in other countries.

Information on the revision

Newly issued in accordance with Australia Code of Practice "Preparation of SDS for Hazardous Chemicals" and Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the ninth revised edition published by United Nations in 2021.

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 europeen relatif au transport international des marchandises Dangereuses par Route (The European agreement on cross-border transportation of dangerous goods by road)
AIIC	Australian Inventory of Industrial Chemicals
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

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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
TCSI	Taiwan Chemical Substance Inventory
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)
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