

Safety Data Sheet

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

1.1. Product identifier:

Product Name: Toner Cartridge PTC A410W1-22

Product Code: PTC

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

Relevant identified uses: For electrophotographic apparatus

Descriptor: Industrial uses (SU3), Ink and toners (PC18)

1.3. Details of the supplier of the safety data sheet:

Supplier: IMEX Co., Ltd.

Address: 1630-8 Mitsutakazu, Kita-ku, Okayama-Shi, Okayama 709-2124, Japan

Telephone number: +81-86-724-4402 FAX number: +81-86-724-2077

E-mail address: msds@imex-net.co.jp

1.4. Emergency telephone number: +81-86-724-4402 (8:30~17:00 JST)

SECTION 2 Hazards identification

2.1 Classification of the Substance or mixture:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Mixture: Health Hazards Carcinogenicity Category 2

(Mixture contain substance "Titanium dioxide" classified Carcinogenicity category 2.)

All other Classifications not listed are "Not classified", "Not applicable" or "Not available"

2.2 Label elements:

Labeling according to Regulation (EC) No 1272/2008 [CLP]



Signal Word: Warning

Hazard Statement:

H351 Suspected of causing cancer

Precautionary Statement:

Prevention; P201 Obtain special instruction before use

P280 Wear protective gloves, clothing, eye protection and dust-proof mask

Response; P318 IF exposed or concerned, get medical advice

Storage; P405 Store locked up

Disposal; P501 Dispose of contents to in accordance with National/international regulations

2.3 Other hazards:

Risk of dust-explosion if finely dispersed in air with an ignition source.

SECTION 3 Composition/information on ingredients

3.2 Mixtures:

Ingredient Name	Weight %	CAS No.	REACH Registration	Classification according to Regulation(EC) No 1272/2008 [CLP]
Saturated polyester resin	40-50	Confidential	Registered*	None
Titanium dioxide	40-50	13463-67-7	Registered	Carc. 2, H351
Wax	1-4	Confidential	Registered*	None
Silica	1-4	67762-90-7	Registered	None
Zinc (II) complex salt**	<1	42405-40-3	Registered	Flam. Sol 1, H228 Acute Tox.4, H302 Aquatic Acute1, H400 Aquatic Chronic1, H410

*Registered as all applicable monomers

**Zinc,(bis[3,5-di(tert-butyl)-2-hydroxybenzoato-O1,O2],(T-4)

See SECTION 16 for full text of Classification Hazard Statements

SECTION 4 First aid measures

4.1 Description of first aid measures:

Immediate medical procedures: None

Inhalation: Move to fresh air and gargle with water. Seek medical advice.

Skin contact: Wash with soap and water.

Eye contact: Do not rub. Flush with large amount of water until particles are removed.
Seek medical advice

Ingestion: Rinse mouth, then drink several glasses of water to dilute stomach content.
Seek medical advice.

4.2 Most important symptoms, both acute and delayed:

Inhalation of excessive amounts of dust may cause physical irritation to respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed:

None

SECTION 5 Firefighting measures

5.1 Extinguishing media:

Water, CO₂, dry chemicals

5.2 Special hazards arising from substance or mixture:

Can form explosive dust-air mixture if finely dispersed in air.

5.3 Advice for firefighters:

Avoid inhalation of fume and smoke.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid breathing dust. Dust-proof masks should be worn when working.

6.2 Environmental precautions:

Do not flush into sewer or natural watercourse.

6.3 Methods and material for containment and cleaning up:

For containment: Keep in air-tight container.

For cleaning up: Sweep the spilled powder slowly.

Clean the remainder with wet cloth, wet paper, or vacuum cleaner.
Vacuum cleaner must be equipped with dust proof filter and must be explosion-proof.

For containment: Keep in air-tight container.

SECTION 7 Handling and storage

7.1 Precautions for safe handling:

Avoid breathing dust. Keep away from ignition sources.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry location away from direct sunlight.

7.3 Specific end use(s):

For use in electrophotographic apparatus such as laser-beam printers and copiers.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters:

As mixture: Dust, respirable

Country	Limit value –Eight hours		Limit value –Short term	
	ppm	mg/m ³	ppm	mg/m ³
European Union	Not established	Not established	Not established	Not established
Austria	-	5	-	10
Belgium	-	3	-	-
France	-	5 (respirable aerosol)	-	-
Germany (AGS)	-	1.25	-	-
Germany (DFG)	-	1.5	-	-
Hungary	-	6	-	-
Ireland	-	4	-	-
Spain	-	3	-	-
Sweden	-	5	-	-
Switzerland	-	3	-	-
USA (ACGIH)	-	3	-	-
USA (OSHA PEL)	-	5	-	-

Applicable control parameters are not established in other Community Members not listed

Constituent substance (Titanium dioxide):

Country	Limit value –Eight hours		Limit value –Short term	
	ppm	mg/m ³	ppm	mg/m ³
European Union	Not established	Not established	Not established	Not established
Austria	-	5	-	10
Belgium	-	10	-	-
Bulgaria	-	10 (respirable dust)	-	-
Denmark	-	6 (as titanium)	-	-
Estonia	-	5	-	-
France	-	10 (as titanium)	-	-
Greece	-	10 (inhalable dust) 5 (respirable dust)	-	-
Ireland	-	10 (inhalable dust) 5 (respirable dust)	-	-
Italy	-	10	-	-

Latvia	-	10	-	-
Lithuania	-	5	-	-
Poland	-	10 (total dust)	-	-
Portugal	-	10	-	-
Romania	-	10	-	15
Spain	-	10	-	-
Sweden	-	5 (total dust)	-	-
USA (ACGIH)	-	10	-	-

8.2 Exposure controls:

Appropriate engineering controls:

Use of local ventilation is recommended.

Individual protection measures:

Eye/face protection: Protective goggles should be used when handling bulk.
 Skin Protection: Protective clothing should be used when handling bulk.
 Hand protection: Protective gloves should be used when handling bulk.
 Respiratory protection: Dust-proof mask required when handling bulk.

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

Appearance: White powder (average particle size: app. 9 microns)
 Odour: Slight odour
 pH: Not applicable
 Melting point: App. 160°C (flow temperature)
Substance Zinc (II) complex salt: 242.7-244.2°C
 Boiling point: Not applicable
 Flash point: Not applicable
 Evaporation rate: Not applicable
 Flammability: Not flammable; Not classified
Substance Zinc (II) complex salt: Highly flammable. (Test method A10); Flam. Sol.1
 Explosive limits: Not available
 Vapour pressure: Not applicable
 Vapour density: Not applicable
 Relative density: 1.1-1.3
 Solubility: Insoluble to water, partially soluble to toluene and xylene
Substance Zinc (II) complex salt: 187.7mg/l in water, 478mg/100g Fat
Substance titanium dioxide: Insoluble to water and fat, soluble to strong acids.
 Partition coefficient: Not available
Substance Zinc (II) complex salt: Log P_{ow} =2.32 at 18°C
 Auto-ignition temperature: Not available
 Decomposition temperature: >200°C
 Viscosity: Not applicable
 Explosive properties: Explosive dust-air mixture is formed when finely dispersed in air
 Oxidizing properties: Not available
Substance Zinc (II) complex salt: Oxidizing substance (Max Burning Rate =1.98mm/s)

9.2 Other information:

None

SECTION 10 Stability and reactivity

10.1 Reactivity:	No data
10.2 Chemical stability:	Stable
10.3 Possibility of hazardous reactions:	No data
10.4 Conditions to avoid:	Do not disperse in air with ignition source.
10.5 Incompatible materials:	No data
10.6 Hazardous decomposition products:	Decomposition will not occur under intended uses.

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

Acute toxicity:	Not Classified
Inhalation:	LC ₅₀ : inh-rat > 5.19mg/L/4 hours (maximum concentration achieved) *
Ingestion:	LD ₅₀ : oral-rat > 2500mg/kg body weight*
<i>Substance Zinc (II) complex salt: Acute Tox. 4</i>	
Oral:	LD ₅₀ (Rat): 1,800 mg/kg
Dermal:	LD ₅₀ (Rat): >2,000 mg/kg
Inhalation:	LC ₅₀ : Not available
Skin corrosion/irritation:	Not available
Serious eye damage/irritation:	Not available
Skin sensitization:	Not available
Germ cell mutagenicity:	Not available
Carcinogenicity:	Category 2, Suspected causing cancer Titanium dioxide contained in this mixture is classified as Carcinogenicity 2 according to Regulation (EC) No. 1272/2008 [CLP]. This mixture is classified as Carcinogenicity 2 by bridging principle "Dilution". Titanium dioxide contained in this mixture is classified as "group 2B" (possibly carcinogenic to humans) by IARC, but the carcinogenicity of titanium dioxide is limited to lung overload conditions by dust inhalation tests. Since the content in this toner is considered to be modulated by their inclusion within the matrix of the mixture, not to be respirable by itself making the situation impossible to occur under intended use of this toner.
Reproductive toxicity:	Not available, no constituent components are classified
STOT-single exposure:	Not available, no constituent components are classified
STOT-repeated exposure:	Not available
Aspiration hazards:	Not available, no constituent components are classified

*data from toner with similar composition

SECTION 12 Ecological information**12.1 Toxicity**

Not classified	
Fish(<i>Oryzias latipes</i>): LC ₅₀ (96hr) > 100mg/L (WAF)*	
Crustaceans(<i>Daphnia magna</i>): EC ₅₀ (48hr) > 100mg/L (WAF)*	
Algae(<i>Pseudokirchneriella subcapitata</i>): E _r L ₅₀ (0-72h)>100 mg/L, NOELR=100mg/L (WAF)*	
<i>Substance Zinc (II) complex salt: Aquatic Acute 1</i>	
Fish(<i>Oryzias latipes</i>): LC ₅₀ (96hr): 5.5mg/L	
Crustaceans(<i>Daphnia magna</i>): EC ₅₀ (48hr): 0.73mg/L (NOEL: 0.5mg/l)	
Algae(<i>Pseudokirchneriella subcapitata</i>): E _p L ₅₀ (72h): 0.64mg/l, (NOEC: 0.20mg/l)	

12.2 Persistence and degradability

Not available

Substance Zinc (II) complex salt: Not readily biodegradable. (15% after 28days)

12.3 Bioaccumulative potential

Not available

Substance Zinc (II) complex salt: Log P_{ow} =2.32; Not suspected to be bioaccumulative.

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment:

This mixture does not contain any substance that are assessed to be PBT or vPvB.

12.6 Other adverse effects:

Not available

**data from toner with similar composition*

SECTION 13 Disposal consideration

13.1 Waste treatment methods

Dispose according to local authority requirements.

Waste should not be released to sewer or natural watercourse.

DO NOT put toner powder or container into fire.

SECTION 14 Transport information

14.1 UN number

None

14.2 UN proper shipping name

None

14.3 Transport hazard class(es)

ADR / RID / ADN: none

IMDG Code: none

ICAO-TI / IATA-DGR: none

14.4 Packing group

None

14.5 Environmental hazards:

Not classified as environmentally hazardous under UN Model Regulations.

Not classified as marine pollutant under IMDG Code.

14.6 Special precautions for user:

Handling such as exposure to water, rolling, falling, or giving shock to the container may result in breakage of the inner bag and result in scattering of the mixture.

Avoid direct sunlight and hot places. (See also: Section 7)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

None

SECTION 15 Regulatory information

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

EU Regulations

Regulation (EC) No 1272/2008 [CLP]

Carcinogenicity Category 2

Regulation (EC) No 1907/2006 [REACH]

Restricted substances: None

SVHC: None*

Registration: See SECTION 3

**Up to 25th updated list issued 8-July-2021*

National regulations (France):

French enforcement Decree no. 2012-232 of 17-February, 2012

Substances "Titanium dioxide" and "Silica" are considered as nanomaterial, but they are considered to be modulated by their inclusion within the matrix of the mixture; thus, they are not considered to be "contained without being linked to the mixture."

Germany: Wassergefährdungsklasse (WGK)

Substance "Zinc (II) complex salt" is considered as aquatic toxicity, but this toner is not classified in EU regulation. See SECTION 12 for details.

15.2 Chemical safety assessment:

Since the ingredient "Zinc (II) complex salt" is classified as very toxic to aquatic life, a representing toner sample has been tested for toxicity to aquatic life as a mixture. See SECTION 12 for details.

SECTION 16 Other information

Issued according to (EC) 453/2010 Annex II amendment of REACH Annex II

This SDS conforms to Regulation (EU) No.1907/2006 and 2015/830,

US OSHA Hazcom 2012 (29 CFR1910.1200), Canada WHMIS 2015 and the GHS.

Indication of changes:

9-Dec.-2021: First issued

Abbreviations and acronyms:

FAX:	Facsimile
CLP:	Classification Labelling Packaging regulation
Flam. Sol.	Flammable Solid
Tox.	Toxicity
Corr.	Corrosivity
Irrit.	Irritation
Dam.	Damage
Sens.	Sensitization
Muta.	Mutagenicity
CAS:	Chemical Abstract Service
REACH:	Registration, Evaluation, Authorization, and Restriction of Chemicals
ppm:	parts per million (weight/weight)
AGS	Ausschuss für Gefahrstoffe
DFG	Deutsche Forschungsgemeinschaft
USA	United States of America
ACGIH:	American Conference of Governmental Industrial Hygienists
TWA:	Time weighted Average
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
app.	approximately
LC ₅₀	Lethal Concentration to 50% of test population
LD ₅₀	Lethal Dose to 50% of test population
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
NIOSH:	National Institute of Occupational Safety and Health
PAH:	Polycyclic Aromatic Hydrocarbons
STOT-SE:	Specific Target Organ Toxicity –Single Exposure
STOT RE	Specific Target Organ Toxicity –Repeated Exposure
WAF	Water Accommodated Fraction
EC ₅₀	Effective Concentration to 50% of test population
NOEC	No Observed Effect Concentration
E ₁ L ₅₀	Effective Loading rate that causes growth rate reduction to 50%
NOELR	No Observed Effect Loading Rate
E ₁ L ₅₀	Effective Loading rate that causes 50% reduction in algal cell biomass
PBT	Persistent, Bioaccumulative, and Toxic
vPvB:	very Persistent and very Bioaccumulative
UN	United Nations
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
ADN:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG	International Maritime Dangerous Goods

IATA-DGR: International Air Transport Association Dangerous Goods Regulations
 ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air
 SVHC: Substances of Very High Concern

Full text of Classification Hazard Statements:

Hazard Statements	
H228	Flammable solid
H302	Harmful if swallowed
H320	Causes eye irritation
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Classification procedures:

Flam. Sol:	Classification data of constituent substances
Acute Tox. -oral:	Data from similar mixture and bridging principle "Dilution"
Acute tox. -inhalation:	Data from similar mixture and bridging principle "Dilution"
Skin Corr/ Irrit:	Data from similar mixture and bridging principle "Dilution"
Eye Dam/ Irrit:	Data from similar mixture and bridging principle "Dilution"
Skin Sens:	Data from similar mixture and bridging principle "Dilution"
Muta:	On basis of test data of this mixture
Aquatic Acute:	Data from similar mixture and bridging principle "Dilution"
Aquatic Chronic:	Data from similar mixture and bridging principle "Dilution"

Although the information contained in this SDS is prepared to be accurate to the best of our knowledge, please be aware that health and hazard assessment may not be enough and complete.

Since SDS may be revised due to regulation changes or product modifications, please confirm if this is the latest version, especially if the revision date is outdated for two years.