Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Toner Cartridge SDTC A410 C-22		
Product Code:	E1C		
Relevant identified uses:	For electrophotographic apparatus		
Supplier:	IMEX Co., Ltd.		
Address:	1630-8 Mitsutakatsu, 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		

SECTION 2 HAZARDS IDENTIFICATION

2.1 Emergency Overview:

Cyan fine powder with little or no odor.

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

2.2 OSHA Regulatory Status:

Classification under GHS: Not classified

GHS Label Elements: None

2.3 Potential Health Effects:

No significant hazards known. See SECTION 11 for details

2.4 Potential Environmental Effects:

No significant hazards known. See SECTION 12 for details

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Identification of Substance/Mixture: Mixture

Ingredient Name	Weight %	CAS No.
Saturated polyester resin	75-90	Confidential
Disperse dyes	5-10	Confidential
Acrylic resin	1-5	Confidential
Silica, treated	1-4	67762-90-7
Wax	1-4	Confidential
Zinc(II) complex salt	<1.5	42405-40-3

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

SECTION 4 FIRST AID MEASURES

Inhalation:

Move to fresh air and gargle with water.

If accompanied with breathing difficulty, take first aid measures such as artificial respiration and call a physician immediately.

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. Seek medical advice.

SECTION 5 FIREFIGHTING MEASURES

5.1 Suitable Extinguishing media:

Water spray or fog, CO_2, dry chemicals

5.2 Unsuitable Extinguishing media:

Strong water current may cause powder to disperse and form explosive dust-air mixture.

5.3 Protection of firefighters

Specific hazards arising from the chemical:

Fine powder may form explosive dust-air mixture if finely dispersed in air.

Fume and smoke may include toxic substances such as aromatic compounds.

Protective equipment and precautions 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 for containment:

Keep in air-tight container.

6.4 Methods 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.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling:

Avoid breathing dust.

Keep away from ignition sources, especially where dust concentration may become high.

7.2 Conditions for safe storage, including any incompatibilities

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

SECTION 8 Exposure contols/personal protection

8.1 Control parameters:

	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
As toner mixture	15mg/m^3(Inhalable fraction) 5mg/m3(Resipable fraction)	N.E.	10mg/m^3(Total dust) 3mg/m3(Resipable fraction)	N.E.
Silica	6mg/m^3	N.E.	10mg/m^3(Total dust) 3mg/m3(Resipable fraction)	N.E.

(N.E.= Not Established)

8.2 Engineering controls:

Use of local ventilation is recommended.

8.3 Personal protective equipment:

Eye/face protection: Protective goggles is recommended if necessary.
Skin Protection: Protective clothing should be used when handling bulk.
Respiratory protection: Dust-proof mask should be used when handling bulk.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance: Cyan powder
Odor: Slight odor
pH: Not applicable
Melting point:
As mixture: App. 200°C (Flow temperature)
Substance Zinc(II) complex salt: *242.7-244.2℃*
Boiling point: No data
Flash point: No data
Evaporation rate: No data
Flammability:
As mixture: Not flammable; Not classified*
Substance Zinc(II) complex salt: *Highly flammable. (Test method A10); Flam. Sol.1**
Explosive limits: No data
Vapour pressure: Not applicable
Vapour density: Not applicable
Relative density: 1.1-1.3
Solubility:
As mixture: Insoluble to water, partially soluble to toluene and xylene.
Substance Zinc(II) complex salt: *187.7mg/l in water, 478mg/100g Fat*
Partition coefficient:
As mixture: Not available
Substance Zinc(II) complex salt: *Log P_{ow}=2.32 at 18°C*
Auto-ignition temperature: Not applicable
Decomposition temperature: >200°C
Viscosity: Not applicable
Explosive properties: Explosive dust-air mixture is formed when finely dispersed in air
Oxidizing properties:
As mixture: Not available

Substance Zinc(II) complex salt: *Oxidizing substance. (Max Burning Rate =1.98mm/s)*
Particle Size: app. 8.0μm (D_{50})

9.2 Other information: None

**according to classification by GHS*

SECTION 10 Stability and reactivity

10.1 Reactivity: None
10.2 Possibility of hazardous reactions: None
10.3 Chemical stability: Stable
10.4 Conditions to avoid: None
10.5 Incompatible materials: None
10.6 Hazardous decomposition products: No data

SECTION 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:
As mixture Not Classified*
Substance Zinc(II) complex salt:
Oral: *LD_{50}(Rat): 1,800 mg/kg ; -Acute Tox.4*
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: No data
Carcinogenicity: Not available
Reproductive toxicity: Not available
No constituent components are classified*
STOT –single exposure: Not available
No constituent components are classified*
STOT –RE: Not available
Aspiration hazards: Not available
No constituent components are classified*

**according to classification by GHS*

SECTION 12 Ecological information

12.1 Ecotoxicity

As mixture:
Fish(*Oryzias latipes*): LC_{50}(96hr) > 100mg/L (WAF)*
Crustaceans(*Daphnia magna*): EC_{50}(48hr) > 100mg/L (WAF)*
Algae(*Pseudokirchneriella subcapitata)*: E_rL_{50}(0-72h)>100 mg/L, NOELR=100mg/L (WAF)*
-Not Classified**
Substance Zinc(II) complex salt:
Fish(Oryzias latipes): LC_{50}(96hr): 5.5mg/L
Crustaceans(Daphnia magna): EC_{50}(48hr): 0.73mg/L (NOEL: 0.5mg/l)

Algae(Pseudokirchneriella subcapitata): E_bL_{50}(72h): 0.64mg/l, (NOEC: 0.20mg/l)

*-Aquatic Acute1***

12.2 Persistence and degradability

Not available for mixture

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

12.3 Bioaccumulative potential

Not available for mixture

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

12.4 Mobility in soil

Not available

12.5 Other adverse effects:

Not available

**data from toner with similar composition.*

***according to classification by GHS*

SECTION 13 Disposal consideration

Dispose according to local authority requirements.

DO NOT release to sewer or natural watercourse.

DO NOT put toner cartridge, toner powder or container into fire.

SECTION 14 Transport information

Basic shipping description

UN number: None

UN proper shipping name: None

Transport hazard class(es): None

Packing group: None

Environmental hazards:

Not classified as environmentally hazardous under UN Model Regulations and marine pollutant under IMDG Code.

Additional information:

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)

ADR / RID / ADN: not regulated

IMDG Code: not regulated

ICAO-TI / IATA-DGR: not regulated

SECTION 15 Regulatory information

Federal Regulations

TSCA: All ingredients are on the inventory or exempt from listing.

SARA Title III Section 313:

None

State Regulations:

California Proposition 65:

“Silica” included in this toner is listed, but only airborne, unbound particles of respirable size

are subject to the regulation.
Thus “Silica” bound inside toner is not subject to the Proposition.

SECTION 16 Other information

Issued according to ANSI Z400.1/Z129.1-2010

Indication of changes:

Oct. 9, 2019: First issued

Abbreviations:

CAS:	Chemical Abstract Service
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ACGIH:	American Conference of Governmental Industrial Hygienists
TLV:	Threshold Limit Value
TWA:	Time weighted Average
STEL:	Short Term Exposure Limit
LC_{50}	Lethal Concentration to 50% of test population
LD_{50}	Lethal Dose to 50% of test population
D_{50}	volume-based median (50%) Diameter
IARC:	International Agency for Research on Cancer
STOT:	Specific Target Organ Toxicity
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_rL_{50}	Effective Loading rate that causes growth rate reduction to 50%
NOELR	No Observed Effect Loading Rate
E_bL_{50}	Effective Loading rate that causes 50% reduction in algal cell biomass
PBT	Persistent, Bioaccumulative, and Toxic
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
TSCA:	Toxic Substances Control Act
SNUR:	Significant New Use Rule
SARA:	Superfund Amendments and Reauthorization Act
ANSI:	American National Standard Institute

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.