

Safety Data Sheet

1. Identification of the Substance or Preparation and the Company

Product identifier: JCLT-27 C

Product description: Cyan toner powder

Supplier:

Email address of contact responsible for safety data sheet:

Emergency telephone: Tel:
Fax:

Relevant identified uses of the substance or preparation: Filled in assembled cartridges for use in laser printers/Copier

Date of last issue / Revision number: 2016-09-09 /01

2. Hazard(s) Identification

Classification of the substance or mixture: Not classified as hazardous mixture in accordance to GHS classification or CLP Regulation (EC) No. 1272/2008 and its amendments. Not classified as a dangerous preparation according to the European Directives 1999/45/EEC and its amendments.

Labelling elements: Hazard pictograms: Not applicable.
Signal word: No signal word.
Hazard statements: Not applicable.
Precautionary statements:
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.
Hazardous ingredients: Not applicable.
Supplemental label elements: Safety data sheet available on request.

Other hazards which do not result in classification: Dust explosion (like most finely divided dust powders).

3. Composition/ Information on Ingredients(*)

Component/Substance	% by weight	CAS no.	EINECS no.	EU classification**
Polyester copolymer	80 – 90	Registered	Registered***	Not classified
Cyan Pigment	< 6	Registered	Registered	Not classified
Wax	< 5	Registered	Registered***	Not classified
Silica	< 4	7631-86-9	Registered	Not classified
Titanium Dioxide	< 2	13463-67-7	236-675-5	Not classified

* All substances will be pre-registered/registered under REACH regulations.

** Classification according to EU Directive 67/548/EEC. Refer to section 16.

*** This polymer is considered registered because the monomers (>= 2%) are in EINECS

4. First-aid Measures

Skin contact	Wash affected area with mild soap and water. Get medical attention if irritation develops or persists.
Eye contact	Flush with large amounts of clean water at low pressure for at least 15 minutes or until particles are removed. Consult a physician if irritation persists.
Inhalation	Remove from exposure to fresh air and gargle with plenty of water. Consult a physician if irritation such as coughing persists.
Ingestion	Rinse mouth thoroughly with water. Drink one or two glasses of water. Seek medical treatment if necessary.

5. Fire-fighting Measures

Flash point and method	Not applicable
Auto ignition temperature	Not applicable
Hazardous combustion products	Carbon monoxide (CO) and carbon dioxide (CO ₂)
Extinguishing media	CO ₂ , water, foam, powder or dry chemicals
Unsuitable extinguishing media	None known.
Unusual fire and explosion hazard	Like most organic material in powder form, dust may form explosive mixture with air when finely dispersed in air. Generates massive smoke during fire.
Special fire-fighting procedures	Avoid breathing fire vapours.

6. Accidental Release Measures

Personal precautions	Minimize dust generation and accumulation. Avoid inhalation, ingestion, eye and skin contact in case of accidental release.
Protective equipment	Use respiratory, eye and skin protections when cleaning spills.
Emergency procedures	Cordon off area affected by spillage prior to clean-up.
Environmental precautions	Do not release into surface water or sanitary sewer system. Refer to section 13 on disposal considerations.
Procedures if material is released or spilled	Gather the released dust by vacuum or slowly sweep the material into a bag or other sealed container. If a vacuum is used, the motor must be rated as dust explosion-proof. Clean the remainder with a damp cloth. Fine powder can form explosive dust-air mixtures. Dispose of in compliance with local regulations.

7. Handling and Storage

Handling precautions	Avoid breathing dust and use with adequate ventilation.
Storage precautions	Store at cool condition (max temp 38 deg. C / 100deg. F) in original container. Keep container tightly closed and dry. Store away from strong oxidizers.

8. Exposure Controls/ Personal Protection

Exposure limit values	USA OSHA (TWA/PEL): 15 mg/m ³ (Total dust), 5 mg/m ³ (Respirable fraction), 80 mg/m ³ /%SiO ₂ (Amorphous silica), 3.5 mg/m ³ (Carbon black), 15 mg/m ³ (Titanium dioxide - total dust) ACGIH (TWA/TLV): 10 mg/m ³ (Inhalable Particulate), 3 mg/m ³ (Respirable particulate), 10 mg/m ³ (Amorphous silica), 3.5 mg/m ³ (Carbon black), 10 mg/m ³ (Titanium dioxide) DFG-MAK: , 4 mg/m ³ (Inhalable fraction), 1.5 mg/m ³ (Respirable fraction), 4 mg/m ³ (Amorphous silica)
Personal protective equipment	Respiratory, eye and skin protections are required during use.
Engineering controls	Use in areas with local exhaust ventilation.

9. Physical and Chemical Properties

pH	Not applicable
Vapor pressure	Not applicable
Initial boiling point and range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Melting point	> 90 °C
Decomposition temperature	> 300 °C
Auto-ignition temperature	Not applicable
Appearance	
Physical state	Solid
Form	Fine powder
Color	Cyan
Odor	Odorless to slight plastic odor
Odor threshold	Not available
Specific gravity (Water=1)	0.30 ~ 0.70
Relative density	Not available
Vapor density	Not applicable
Solubility	Negligible in water. Partially soluble in toluene and xylene.
Viscosity	Not applicable
Flammability	Not flammable
Upper flammability in air, %vol	Not available
Lower flammability in air, %vol	Not available
Partition coefficient: n-octanol/ water	Not available
Oxidizing properties	No information available

10. Stability and Reactivity

Reactivity	Not applicable.
Stability	Stable under normal storage conditions.
Possibility of hazardous reactions	None identified. Hazardous polymerization will not occur.
Hazardous decomposition products	Carbon monoxide (CO) and carbon dioxide (CO ₂)
Incompatibility	Strong oxidizers
Conditions to avoid	Ignition and fire source when dust is finely dispersed in air.

11. Toxicological Information

Complete toxicity data are not available for this specific formulation.

Refer to Section 3 for potential health effects and Section 4 for first aid measures.

Acute dermal irritation	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
Acute eye irritation	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
Sensitization	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
Chronic toxicity	No information available.
Acute oral toxicity	LD ₅₀ > 2000 mg/kg (estimated from other products containing similar materials)
Acute inhalation toxicity	<u>Information of Ingredients:</u>
Carcinogenicity	No carcinogen or potential carcinogen, (except carbon black and titanium dioxide) according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, MAK, California Proposition 65, TRGS 905 and (EC)No 1272/2008 AnnexVI

Table 3.2.

The IARC re-evaluated carbon black and titanium dioxide as a Group 2B carcinogen (possibly carcinogenic to humans) But, oral/skin test does not show carcinogenicity. (4)

Mutagenicity	<u>Other information:</u> None
Reproductive toxicity	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
Symptoms and target organs	Not classified as toxic according to EU Directive 67/548/EEC and as amended, California Proposition 65, and DFG (Germany).
NIOSH – Pocket Guide – Target Organs	
Amorphous silica	7631-86-9 respiratory system, eyes

12. Ecological Information

Ecotoxicity	Based on available data of similar material, toner is identified as non-harmful to aquatic organisms.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal Considerations

Disposal instructions	Dispose of in accordance to federal, state, and local regulations.
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14. Transport Information

Not regulated under DOT, IMDG, IATA, ADR or RID.
Any transportation practice must be in compliance with law & regulations.

UN No.	None
UN Shipping Name	None
UN Classification	None
UN Packing Group	None
Special Precautions	None

15. Regulatory Information

International regulations

All chemical substances in this preparation have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

US federal regulations

US EPA TSCA Inventory: All chemical substances in this preparation comply with all rules or orders under TSCA.

16. Other Information

Disclaimer: To the best of our present knowledge and experience, the information contained herein is believed to be accurate. However, no warranty is made. In addition to the information provided herein, users are advised to consider supplementing with other information from suitable sources, and arrive at their own independent judgment on whether the information is accurate and complete so as to ensure proper use and disposal for the safety of their staff and customers.

<Reference>

- (1) • Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats H. Muhle et. al., Fundamental and Applied Toxicology 17. 280-299 (1991)
 - Lung Clearance and Retention of Toner, Utilizing a Tracer Technique, during Chronic Inhalation Exposure in Rats B. Bellmann, Fundamental and Applied Toxicology 17. 300-313 (1991)
- (2) ACGIH TLV (Threshold Limit Values)
- (3) OSHA PEL (Permissible Exposure Limits)
- (4) IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93
- (5) NIOSH CURRENT INTELLIGENCE BULLETIN "Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide DRAFT"
 - ISO 11014-1 Safety data sheet for chemical products
 - Regulation (EC) No 1907/2006

<Abbreviation>

ACGIH: American Conference of Governmental Industrial Hygienists
2010 TLVs and BEIs (Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices)

OSHA: Occupational Safety and Health Administration (29 CFR Part 1910 Subpart Z)

TWA: Time Weighted Average

IARC: International Agency for Research on Cancer
(IARC Monographs on the Evaluations of Carcinogenic Risks to Humans)

EPA: Environmental Protection Agency (Integrated Risk Information System) (USA)

NTP: National Toxicology Program (Report on Carcinogens) (USA)

MAK: Maximale Arbeitsplatz-Konzentrationen (List of MAK and BAT Values 2009)
(DFG: Deutsche Forschungsgemeinschaft)

Proposition 65: California, Safe Drinking Water and Toxic Enforcement Act of 1986

TRGS905: Technische Regeln für Gefahrstoffe (Deutsche)

(EC) No. 1272/2008 Annex VI Table 3.2: Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) Annex VI Table 3.2

UN: United Nations

TSCA: Toxic Substances Control Act (USA)

EINECS: European Inventory of Existing Commercial Substances

ELINCS: European List of Notified Chemical Substances

EU: European Union

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations