

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH), 1272/2008 (CLP) and (EU) No.453/2010 (amending REACH)

Black toner for colour laser cartridges

Chapter 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCE or MIXTURE: Mixture

Substances in the mixture:

Substance name	CAS No.	EC No.	Weights (%)	REACH (pre/registration) Number	Index number	Classification according to CLP Regulation (EC) No 1272/2008
Carbon black	1333-86-4		2-8%	05-2114136296-49-0000		
Quaternary ammonium salt**	102561-46-6		0.1-1%			
Saturated polyester resin	Confidential		70-80%			
Silica, treated	Confidential		1-6%			
Styrene acrylate copolymer	Confidential		2-8%			
Titanium(IV) dioxide	13463-67-7		0.1-1%			
Wax	Confidential		2-8%			

The Full Text for all R-Phrases are Displayed in Section 16

Substances in Annex XIV to Regulation (EC) No 1907/2006 (Authorization) or the Candidate List of SVHC: None

Substances in Annex XVII to Regulation (EC) No 1907/2006 (Restriction): None

Note:

All substances with CAS numbers not listed in the MSDSs of our products are not classified as hazardous by the regulation (EC) No 1272/2008 (CLP) or included in the candidate list of SVHC.

All substances where the registration limits for importation are achieved have been subjected to the mentioned registration by the importing company or an only representative to Europe.

Chapter 4. FIRST AID MEASURES

4.1.1 FIRST AID INSTRUCTIONS BY RELEVANT ROUTES OF EXPOSURE

Inhalation:	Remove to fresh air. If effects occur, seek medical advice.
Eye contact:	Do not rub eyes. Flush eyes immediately with plenty of water for at least 15 minutes.
Skin contact:	Flush with plenty of water. Use soap. If irritation develops, seek medical advice.
Ingestion:	Clean mouth out with plenty of water. Drink several glasses of water. If sickness develops, seek medical advice.

4.1.2 ADDITIONAL FIRST AID INFORMATION

Additional first aid information: N/A

4.2 SYMPTOMS AND EFFECTS ACUTE AND DELAYED

Acute Symptoms from Exposure: Exposure to excessive amounts of dust may cause physical irritation to respiratory tract.
Delayed Symptoms from Exposure: Prolonged inhalation of excessive amounts of dust may damage lung.

4.3 IMMEDIATE SPECIAL TREATMENT OR EQUIPMENT REQUIRED

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

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Chapter 5. FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Recommended Extinguishing Media: Water, dry chemical, carbon dioxide or foam type extinguishers.
Extinguishing Media Not to be Used: None known.

5.2 SPECIAL HAZARDS arising from the substance/mixture

Dust explosion: This mixture, like most organic material in powder form, is capable of creating a dust explosion when in very high quantities (much above a toner crtg), pulverized and in the presence of an ignition.
Hazardous Combustion: Carbon monoxide and carbon dioxide

5.3 ADVICE FOR FIRE FIGHTERS

Firefighters should wear protective equipment such as gloves, glasses, boots and respiratory mask as needed. Do not breathe fumes. Keep containers cool with water spray if exposed to fire.

Chapter 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 PRECAUTIONS FOR NON-EMERGENCY PERSONNEL

Minimize the release of particulates. Do not use a vacuum cleaner unless motor is rated dust tight.

6.1.2 ADDITIONAL FIRST AID INFORMATION

Avoid breathing dust.
Remove ignition sources.

6.1.3 PERSONAL PROTECTION

Wear personal protective equipment as described in Section 8.

6.2 ENVIRONMENTAL PRECAUTIONS

Regulatory Information: Keep product out of sewers and watercourses.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANUP

Spill or Leak Cleanup Procedures: After lightly spraying with water to prevent development of dust, spill should be swept up or wiped up. Then residuals can be removed with soap and cold water. If it is not possible to scrub the floor with water, cover the floor with suitable sheets of paper. These used sheets should be wrapped up in spills and transferred to a suitable container for disposal. Garments may be washed or dry cleaned, after removal of loose toner, always without the presence of heat to avoid permanent stains.

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Chapter 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Keep out of reach of children.

Keep away from ignition sources. Avoid dust formation. Handle in adequately ventilated areas. Do not breathe dust. Do not get in eyes or on skin. Wear personal protective equipment as recommended in Section 8. Keep away from excessive heat and sources of ignition such as sparks and open flames. Ensure all the equipment is electrically earthed / grounded before beginning operation. Do not handle with strong oxidizers, which may vigorously oxidize organic materials in this mixture and cause a fire in an extreme case. Avoid spills. Do not release to drains. Do not eat, drink or smoke when handling this product. Wash hands after handling this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 CONDITIONS FOR SAFE STORAGE

Keep out of reach of children.

Keep container closed and store in well-ventilated dry place at room temperature.

Avoid high temperatures, >100°F/32°C

Do not store with strong oxidizers.

Avoid packaging materials with plasticizer, which may soften this product if directly contacted.

7.3 SPECIFIC END USES

Electrophotographic printers and copiers

Chapter 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 2).

Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

8.2 EXPOSURE CONTROLS

Appropriate Engineering Controls: Good general ventilation should be sufficient under normal conditions of use.

Individual Protection Measures, such as Personal Protective Equipment:

Respiratory protection:

IMPROPER USE OF RESPIRATORS IS DANGEROUS. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, levels of airborne contamination, and sufficient levels of oxygen.

Eye/Face Protection:

Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. Protective goggles or safety glasses are recommended.

Hand/Skin Protection:

For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. **WARNING!** Air purifying respirators do not protect worker in oxygen deficient atmospheres.

Thermal Hazards:

None anticipated.

Environmental Exposure Controls:

Avoid release to the environment.

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Additional Protection:

N/A

Protective Clothing and Equipment:

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear splash proof chemical goggles and face shield when working with liquid, unless full face piece respiratory protection is worn.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment. Never take home contaminated clothing.

Comments:

Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or applying cosmetics.

Chapter 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 DETAIL INFORMATION

Physical state:	Fine colored powder
Color:	Black
Odor:	Faint
Odor threshold:	N/A
pH:	N/A
Melting point/Freezing point:	~130°C
Flash point:	N/A
Explosion limits:	N/A
Relative density:	1.1-1.3
Auto-ignition temperature:	N/A
Vapor pressure:	N/A
Vapor Density:	N/A
Specific weight:	N/A
Solubility:	Insoluble to water, partially soluble to toluene and xylene.
Partition coefficient n-octanol / water:	N/A
Decomposition temperature:	>200°C
Viscosity:	N/A
Oxidizing properties:	N/A

9.2 OTHER INFORMATION

N/A

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Chapter 10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity Hazards: None
Data on Mixture Substances: None

10.2 Chemical Stability:

The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.

10.3 Hazardous Polymerization:

Stable under conditions of normal use.

10.4 Conditions to Avoid:

Keep away from heat, flame, sparks and other ignition sources.

10.5 Incompatible Materials:

Strong oxidizing materials

10.6 Hazardous Decomposition:

Will not occur.

Chapter 11. INFORMATION ON TOXICOLOGICAL EFFECT

Mixtures: 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 legal requirements. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

Acute Toxicity:

Ingestion: LD50: oral-rat > 2500mg/kg body weight
Inhalation: LC50: inh-rat > 5.19mg/L/4 hours
Skin / Corrosivity: No test data available

Irritation / Corrosivity:

Skin Corrosion/Irritation: Non irritant (Rabbit)
Serious Eye Damage/Irritation: Non irritant (Rabbit)

Sensitization:

Skin Sensitization: Guinea pig-maximization; not a sensitizer
Respiratory Sensitization: No test data available

Carcinogenicity: Carbon black is reclassified as a group 2B by IARC, but inhalation tests using a typical toner showed no association between toner and animal tumors.

Mutagenicity: Toner is AMES test (Salmonella typhimurium, Escherichia coli) negative (no mutagenic)

Toxic for Reproduction: N/A

STOT(Specific Target Organ Toxicity) - Single Exposure: Titanium oxide is classified, but the content in this toner is less than the criteria-Not classified.

STOT(Specific Target Organ Toxicity) - Multiple Exposure: In normal conditions of use (in electro-photographic apparatus,) maximum concentration of toner released is significantly lower than 1mg/m³, and will have no chronic effects to human health.

Additional toxicology information: None

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Chapter 12. ECOLOGICAL INFORMATION

- 12.1 Eco toxicity:** Based on available data, not harmful to aquatic life.
- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulation Potential:** No data available.
- 12.4 Mobility in Soil:** Partially soluble in water.
- 12.5 PBT & vPvB Assessment:** No result that indicates this product meet(s) the PBT or vPvB criteria under Regulation (EC) No 1907/2006.
- 12.6 Other Adverse Effects:** No data available

Chapter 13. DISPOSAL CONSIDERATIONS

Disposal Information:

This product is not regarded as hazardous waste as defined by EU directive 91/689/EEC
Dispose as a solid waste in accordance with local authority regulations.
Empty container retains product residue.

Physical/Chemical Properties that affect Treatment:

Symbol: This product is not classified as dangerous

Risk Phrases: This product is not classified according to the EU regulations.

Waste Treatment Information:

Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Finely dispersed particles may form explosive mixtures in air. Dispose of in compliance with federal, state, and local regulations

Chapter 14. TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID):

- 14.1 UN Number:** N/A
- 14.2 UN Shipping Name:** N/A
- 14.3 Hazard Class:** N/A
- 14.4 Packing Group:** N/A
- 14.5 Environmental Hazards:** N/A
- 14.6 User Precautions:** 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
- 14.7 Bulk Transport:** N/A

Chapter 15. REGULATORY INFORMATION

15.1 REGULATORY INFORMATION RELATING TO ENVIRONMENT, HEALTH AND SAFETY

This Safety Data Sheet was prepared in accordance with:

EU Regulatory Information: Regulation (EC) No 1272/2008 [CLP], Regulation (EC) No 1907/2006 [REACH]
Restricted substances: None
SVHC: None

EPA Regulatory Information: N/A

CERCLA Reportable Quantity: None

Superfund Information:

Hazard Categories:

Immediate: None
Delayed: None
Fire: None

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Pressure: None

Reactivity: None

Section 302 - Extremely Hazardous: Not listed

Section 311 - Hazardous: Not listed

15.2 CHEMICAL SAFETY ASSESSMENT

N/A

Chapter 16. OTHER INFORMATION

Sections containing revisions and/or new statements:

Newly issued in accordance with Regulations (EC) No 1907/2006 (REACH) , 1272/2008 (CLP) and (EU) No 453/2010 (amending REACH).

General Comments:

This information is based on our current knowledge. It should not therefore be construed as guarantee in specific properties of the products as described or their suitability for a particular application

Literature reference: N/A

Safety Phrases: None

Precautionary Statements: None

Worker Training: N/A

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Key to Abbreviations and Acronyms used in this sheet:

ACGIH = American Conference of Governmental Industrial Hygienists	N/A = Not Applicable / Not Available
CERCLA = Comprehensive Environmental Response Compensation and Liability Act	NFPA = National Fire Protection Association
CLP = Classification, Labeling, and Packaging	NIOSH = National Institute for Occupational Safety and Health
DSD = Dangerous Substances Directive	OSHA = Occupational Health and Safety Administration
EC = European Community	PEL = Permissible Exposure Limit
ECHA = European Chemicals Agency	SCBA = Self Contained Breathing Apparatus
EPA = Environmental Protection Agency	STOT = Specific Target Organ Toxicity
EU = Europe or European	TLV = Threshold Limit Value
GHS = Globally Harmonized System	UK = United Kingdom
	UN = United Nations

DISCLAIMER

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