

1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY UNDERTAKING**1.1 PRODUCT IDENTIFIER**

Product name: N/A
Part number: WERCS1177632

1.2 IDENTIFIED USES AND USES ADVISED AGAINST

For use in: This mixture is a toner used in copiers/printers.

1.3 SUPPLIER DETAILS

Supplier: Clover Technologies Group
4200 Columbus Street.
Ottawa, IL 61350
United States
Phone number: 815-431-8100
Fax: 815-461-8583
Contact Hours: 08:00AM-05:00PM CST

1.4 EMERGENCY TELEPHONE NUMBERS

Supplier: N/A

* This document provides safety-related information about toner contained in print cartridge for use in laser printer

2. HAZARDS IDENTIFICATION**2.1 INFORMATION and CLASSIFICATION**

Overview: Odorless yellow fine powder. Not highly flammable, but when suspended in air, is combustible as with most organic powders. CARCINOGENIC EFFECTS: Titanium dioxide is reclassified as a group 2B by IARC, but inhalation tests using a typical toner showed no association between toner exposure and animal tumors. POTENTIAL HEALTH EFFECTS: EYES - Solid or dusts may cause irritation or corneal injury; SKIN CONTACT - Essentially nonirritating to skin; SKIN ABSORPTION - Skin absorption is unlikely due to physical properties; INGESTION - Oral toxicity is believed to be low; INHALATION - Minimal irritation to respiratory tract may occur. FIRE AND EXPLOSION: SENSITIVITY TO MECHANICAL IMPACT - None; SENSITIVITY TO STATIC CHARGE - None.

2.2 LABEL ELEMENTS

Applicable Pictograms:



Danger Indications: N/A
Risk Phrases: N/A
Safety Phrases: N/A

2.3 OTHER HAZARDS

PBT or vPvB: N/A

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS number	Weight %	OSHA PEL	ACGIH TLV	Other
Polyester Resin	39382-25-7	67			
Dimethylpolysiloxane	63148-62-9	1			
Titanium Dioxide	13463-67-7	1			
Pigment 1	6538-31-2	5			
Pigment 2	76199-85-4	4			
Silica	7631-86-9	3			
Zinc Disilicylate	16283-36-6	8			
Carnauba Wax	8015-86-9	8			
Amorphous Silica	67762-90-7	3			

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

COMPOSITION COMMENTS

The Data Shown is in accordance with the latest Directives.

This section provides composition information for the toner powder contained in specially designed container inside of the print cartridge.

4. FIRST-AID MEASURES

4.1 FIRST AID MEASURES

4.1.1 FIRST AID INSTRUCTIONS BY RELEVANT ROUTES OF EXPOSURE

- Inhalation: Remove to fresh air. If effects occur, consult medical personnel.
- Eye contact: Flush eyes immediately with plenty of water for at least 15 minutes. Get medical attention.
- Skin contact: Flush with plenty of water. Use soap.
- Ingestion: No adverse effects anticipated by this route of exposure, incidental to proper handling.

4.1.2 ADDITIONAL FIRST AID INFORMATION

- Additional first aid information: N/A
- Immediate Medical Attention Required: N/A

4.2 SYMPTOMS AND EFFECTS

- Acute Symptoms from Exposure: N/A
- Delayed Symptoms from Exposure: N/A

4.3 IMMEDIATE SPECIAL TREATMENT OR EQUIPMENT REQUIRED

N/A

5. FIRE-FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Recommended Extinguishing Media: Water fog, foam, CO2, dry chemical.
Extinguishing Media Not to be Used: N/A

5.2 SPECIAL HAZARD

Unusual Fire/Explosion Hazards: N/A
Extinguishing Media Not to be Used: N/A

5.3 ADVICE FOR FIRE FIGHTERS

Avoid inhalation of smoke. Wear protective clothing and wear self-contained breathing apparatus

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. Wear personal protective equipment.

6.1.2 ADDITIONAL FIRST AID INFORMATION

N/A

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: Do not use vacuum cleaner. After lightly spraying with water to prevent development of dust, spills should be swept up or wiped up. Then residuals can be removed with soap and water. If it is not possible to scrub the floor with water, cover the floor and surrounding materials 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.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Recommendations for Handling: No special precautions when used as intended. Keep containers closed, avoid creating dust. Keep away from ignition sources.

Advice on General Hygiene: 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.

7.2 CONDITIONS FOR SAFE STORAGE

Avoid high temperatures, >100°F/32°C

7.3 SPECIFIC END USES

Printing devices

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

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.

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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 DETAIL INFORMATION**

Physical state:	APPEARANCE: Yellow Powder.
Color:	N/A
Odor:	Odorless
Odor threshold:	N/A
Boiling point:	N/A
Melting point:	N/A
Flash point:	N/A
Explosion limits:	N/A
Relative density:	N/A
Auto-ignition temperature:	N/A

9.2 OTHER INFORMATION

SOLUBILITY IN WATER: Negligible. SP. GRAVITY: ca. 1.30 - 1.40. FLAMMABLE PROPERTIES: Not highly flammable.

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 polymerisation 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 oxidising materials

10.6 Hazardous Decomposition:

Will not occur.

11. INFORMATION ON TOXICOLOGICAL EFFECT

Mixtures:	N/A
Acute Toxicity:	N/A
Skin Corrosion/Irritation:	N/A
Serious Eye Damage:	N/A
Inhalation:	N/A
Sensitization:	N/A
Mutagenicity:	Negative in the Ames test. (Estimated from the data of constituent components.)
Carcinogenicity:	N/A
Reproductive Toxicity:	N/A
STOT - Single Exposure:	N/A
STOT - Multiple Exposure:	In a study in rats (H. Muhle) by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the concentration (16mg/m ³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m ³) exposure group. But no pulmonary changes was reported in the lowest (1mg/m ³) exposure group, the most relevant level to potential human exposures.
Ingestion:	N/A
Hazard Class Information:	N/A
Mixture on Market Data:	N/A
Symptoms:	N/A
Delayed/Immediate Effects:	N/A
Test Data on Mixture:	REFERENCES: H. Muhle, B. Bellmann, O. Creutzenbert, C. Dasenbrock, H. Ernst, R. Kilpper, J. C. Mackenzie, P. Morrow, U. Mohr, S. Takenaka, and R. Mermelstein (1991) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp. 280-299.
Not Meeting Classification:	N/A
Routes of Exposure:	N/A
Interactive Effects:	N/A
Absence of Specific Data:	N/A
Mixture vs Substance Data:	N/A

12. ECOLOGICAL INFORMATION

12.1 Eco toxicity:	N/A
12.2 Degradability:	N/A
12.3 Bioaccumulation Potential:	N/A
12.4 Mobility in Soil:	N/A
12.5 PBT & vPvB Assessment:	N/A
12.6 Other Adverse Effects:	N/A

13. DISPOSAL CONSIDERATIONS**Disposal Information:**

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 federal, state and local environmental 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.

Personal Protection Required:

N/A

14. TRANSPORT INFORMATION

14.1 **ID Number:** None allocated. This is not a hazardous product.

14.2 **Shipping Name:** None allocated. This is not a hazardous product.

14.3 **Hazard Class:** None allocated. This is not a hazardous product.

14.4 **Packing Group:** None allocated. This is not a hazardous product.

14.5 **Environmental Hazards:** N/A

14.6 **User Precautions:** N/A

14.7 **Bulk Transport:** N/A

15. REGULATORY INFORMATION

15.1 **Regulatory Information:** TSCA: All chemical substances in this product comply with all applicable rules or orders under TSCA.

EPA Regulatory Information: N/A

CERCLA Reportable Quantity: N/A

15.2 **Superfund Information:**

Hazard Categories:

Immediate: N/A

Delayed: N/A

Fire: NFPA Rating: Health = 1 Flammability = 1
Reactivity = 0

Pressure: N/A

Reactivity: N/A

Section 302 - Extremely Hazardous: N/A

Section 311 - Hazardous: N/A

15.3 **State Regulations:** N/A

15.4 **Other Regulatory Information:** FERRITE: SARA Title III Section 313 (Copper compounds, Zinc compounds). EU: Especially none.



16. OTHER INFORMATION

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

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SAFETY DATA SHEET

Key to Abbreviations and Acronyms used in this sheet:

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

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