SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product name: N/A

Part number: WERCS1176860

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

2. HAZARDS IDENTIFICATION

2.1 INFORMATION and CLASSIFICATION

Overview: This mixture is fine powder with no or slight plastic-like odor. This mixture may cause irritation of the

respiratory system, eyes, and skin. This mixture, like most organic powders, can cause a dust explosion if particles form thick clouds. Acute health effects: Eye contact - Irritation may occur by mechanical abrasion; Skin contact - Minimal skin irritation may occur; Inhalation - Slight irritation of respiratory tract may occur with exposure to large amount of toner dust; Ingestion - Ingestion is an unlikely route of entry under normal conditions of use. Carcinogenicity: This mixture contains carbon black and titanium dioxide that are listed by IARC as Group 2B (possibly carcinogenic to humans); however, no significant exposure to either carbon black or titanium dioxide is thought to occur during the use of the product because they are mostly in a bound form in this mixture. Other information: This mixture is not classified as hazardous according to the latest adaptations of EU Directive 1999/45/EC. This mixture complies with the requirements of the RoHS Directive 2002/95/EC and its amendment directives.

2.2 **LABEL ELEMENTS**

Applicable Pictograms:

NO PICTOGRAM

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

Safety Phrases: N/A

2.3 OTHER HAZARDS

PBT or vPvB: N/A

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



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3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS number	Weight %	OSHA	ACGIH	Other
			PEL	TLV	
Styrene acrylate	58048-89-8	83			TSCA listed/exempted: Yes
Wax	9002-88-4	10			TSCA listed/exempted: Yes
Titanium Dioxide	13463-67-7	1			TSCA listed/exempted: Yes
Silica	7631-86-9	1			TSCA listed/exempted: Yes
Carbon Black	1333-86-4	5			TSCA listed/exempted: Yes. Refer
					to Section 8 for the exposure limits
					and Section 11 for toxicological
					information.

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: Provide fresh air immediately. If symptoms occur, seek medical advice.

Eye contact: Do not rub eyes. Immediately rinse with plenty of clean running water until particles are washed

out. If irritation persists, seek medical advice.

Skin contact: Wash out particles with plenty of water and soap. If irritation develops, seek medical advice.

Ingestion: Clean mouth out with 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

Immediate Medical Attention Required: Immediate medical attention may be required in the unlikely event of extreme

inhalation, eye contact or unusual reaction due to physical idiosyncrasy of the

person.

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

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5. FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Recommended Extinguishing Media: Carbon dioxide, water, foam, dry chemical

Extinguishing Media Not to be Used: None known.

5.2 **SPECIAL HAZARD**

Unusual Fire/Explosion Hazards: Toner, like most organic powders, is capable of creating a dust explosion when

particles are dispersed. Carbon monoxide and carbon dioxide are hazardous resulting

gases.

Extinguishing Media Not to be Used: N/A

5.3 ADVICE FOR FIRE FIGHTERS

Avoid inhalation of smoke. Wear protective cloting an 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

Avoid dust formation. Do not breathe dust.

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: Eliminate sources of ignition and flammables. Vacuum or sweep the material into a sealed

container. If a vacuum cleaner is used, it must be dust explosion-proof. Dispose of the

material in accordance with Federal/state/local requirements.

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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 splashproof 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 **DETAIL INFORMATION**

Physical state: APPEARANCE: Fine powder.

Color: N/A

Odor: None or slight plastic-like odor

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

FLAMMABILITY: Not flammable. SPECIFIC GRAVITY: 1.0-1.5 (water = 1) SOLUBILITY: Partially soluble in toluene and tetrahydrofuran. WATER SOLUBILITY: Negligible.

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.

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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 Federal/state/local requirements. Refer to Section 2 for potential health effects and Section 4 for

first aid measures.

Acute Toxicity: Oral: LD50 rat > 5,000 mg/kg (OECD 425), not harmful. (a similar product). Inhalation: No test

data available. None of the substances in this mixture is classified for acute inhalation toxicity according to EU Directive 67/548/EEC. Dermal: No test data available. None of the substances in this mixture is classified as irritant according to OSHA Hazard Communication Standard 29 CFR

1910.1200 or for acute dermal toxicity according to EU Directive 67/548/EEC.

Skin Corrosion/Irritation: No test data available. None of the substances in this mixture is classified as skin irritant according

to OSHA Hazard Communication Standard 29 CFR 1910.1200 or EU Directive 67/548/EEC.

Serious Eye Damage: No test data available. None of the substances in this mixture is classified as eye irritant EU

Directive 67/548/EEC.

Inhalation: N/A

Mutagenicity:

Carcinogenicity:

Sensitization: No test data available. None of the substances in this mixture is classified as a sensitizer according

to OSHA Hazard Communication Standard 29 CFR 1910.1200 or EU Directive 67/548/EEC.

Ames test (Salmonella typhimurium, Escherichia coli) negative. (a similar product)

No test data available. None of the substances in this mixture is classified for carcinogenicity according to EU Directive 67/548/EEC. Carbon black is listed by IARC as a group 2B (possibly carcinogenic to humans), but IARC monographs vol. 65 and 93 state that there is inadequate evidence in humans for carcinogenicity of carbon black. Inhalation test of a toner for two years*

showed no significant carcinogenicity. In addition IARC monograph vol. 93 states that no

significant exposure to carbon black is thought to occur during the use of products in which carbon black is bound to other materials, such as rubber, printing ink or paint. Carbon black in this mixture is in a bound form. [* "Negative Effect of Long-term Inhalation of Toner on Formation of 8-Hydroxydeoxyguanosine in DNA in the Lungs of Rats in Vivo", Yasuo Morimoto, et. Al., Inhalation Toxicology, Vol. 17 (13) 749-753 (2005).] Titanium dioxide is listed by IARC as Group 2B (possibly carcinogenic to humans); however, IARC monograph vol. 93 states that exposure levels are assumed to be lower in the user industries, with the possible exception of workers who handle large quantities of titanium dioxide. Titanium oxide in this mixture is within small quantity and

mostly in a bound form. Therefore, no significant exposure to titanium dioxide is thought to occur during the use of the product.

Reproductive Toxicity: No test data available. None of the substances in this mixture is classified for reproductive toxicity

according to EU Directive 67/548/EEC.

STOT - Single Exposure: N/A

STOT - Multiple Exposure: No test data available. None of the substances in this preparation is classified for chronic toxicity

according to EU Directive 67/548/EEC.

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: N/A

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

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12. ECOLOGICAL INFORMATION

12.1 **Eco toxicity:** According to the information provided by the suppliers about the substances contained in this

mixture, this mixture is not expected to be harmful to ecology.

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: None known.

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:** Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.

14.2 **Shipping Name:** Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.

14.3 **Hazard Class:** Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.

14.4 **Packing Group:** Not a regulated material under the United States DOT, IMDG, ADR, RID, or ICAO/IATA.

14.5 Environmental Hazards: N/A

14.6 User Precautions: N/A

14.7 **Bulk Transport:** N/A

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15. REGULATORY INFORMATION

15.1 **Regulatory Information:** TSCA: All the substances in this mixture are listed or exempted in accordance with TSCA.

EPA Regulatory Information: N/A

CERCLA Reportable Quantity: Not applicable to this mixture.

15.2 Superfund Information:

Hazard Categories:

Immediate: N/A

Delayed: N/A

Fire: N/A

Pressure: N/A

Reactivity: N/A

Section 302 - Extremely Hazardous: Not applicable to this mixture.

Section 311 - Hazardous: Not applicable to this mixture.

15.3 State Regulations: N/A

15.4 **Other Regulatory Information:** This mixture complies with the requirements of the RoHS Directive 2002/95/EC and its

amendment directives. Please refer to any other Federal/state/local measures that may be

relevant.

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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Key to Abbreviations and Acronyms used in this sheet:

ACGIH = American Conference of Governmental Industrial	NIOSH = National Institute for Occupational Safety and Health		
Hygienists			
CERCLA = Comprehensive Environmental Response Compensatio	nOSHA = Occupational Health and Safety Administration		
and Liability Act			
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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warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

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