1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product name: High Yield Yellow Toner Cartridge for Lexmark CS310/CS410/CS510

Part number: 24424552

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: This product is an article which contains a mixture / preparation in powder form. Safety information is given for exposure to the article as sold and used by the customer. Intended use of the product is not expected to result in exposure to the mixture / preparation based on the packaging and method of dispensing. While this material is not considered hazardous by the OSHA hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information for the safe handling and proper use of the product. This SDS should be retained and made available to employees and other users of this product.

2.2 LABEL ELEMENTS

Applicable Pictograms:

Danger Indications: Label elements (Hazard, Signal words, Hazard statement and Precautionary statements): Signal word - Warning - “Combustible Dust - Warning - May cause combustible dust concentrations in air." "Prevent dust cloud. Sweep up or vacuum with electrically protected vacuum cleaner and collect in suitable container for disposal. Use non-sparking tools and equipment. Keep away from sources of ignition - No smoking." No hazard expected under normal conditions of use.

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
Polymer	292629-36-8	80-90			
Polyethylene wax	9002-88-4	5-15			
Cyan, Magenta, and Yellow Pigments	Proprietary	5-10			
Carbon Black	1333-86-4	5-10	TWA: 3.5 mg/m3	TWA: 3 mg/m3	
			TWA: 15mg/m3(Total dust), 5mg/m3(Respirable dust)	TWA: 10mg/m3(Inhalable particles), 3mg/m3(Respirable dust)	Exposure Limit: 2.5mg/m3(Total dust), 0.4mg/m3(Respirable dust)

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:	Move to fresh air.
Eye contact:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
Skin contact:	Wash skin with soap and water.
Ingestion:	Rinse mouth with water and afterwards drink plenty of water or milk.

4.1.2 **ADDITIONAL FIRST AID INFORMATION**

Additional first aid information:	Overexposure may cause: mild respiratory irritation similar to nuisance dust.
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:	Use water spray or fog; do not use straight streams, Foam
Extinguishing Media Not to be Used:	Do not use a solid water stream as it may scatter and spread fire

5.2 **SPECIAL HAZARD**

Unusual Fire/Explosion Hazards:	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Hazardous decomposition products due to incomplete combustion, Carbon oxides, Nitrogen oxides (NOx).
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**

Personal precautions, protective equipment and emergency procedures - Avoid breathing 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:	Methods for containment - Prevent dust cloud. Methods for cleaning up - Use a vacuum cleaner to remove excess, then wash with COLD water. Hot water fuses the toner making it difficult to remove.

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 3).
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: Form: Powder, Color: Black, Cyan, Magenta, Yellow
Color:	Yellow
Odor:	Faint odor
Odor threshold:	N/A
Boiling point:	N/A
Melting point:	Softening point: 49 - 60 °C / 120 - 140 °F
Flash point:	N/A
Explosion limits:	Explosive properties: (Method: ASTM E 1226 Standard Test Method for Explosibility of Dust Clouds), Maximum rate of explosion pressure rise (KSt): 282 - 304 m*bars/sec, Maximum explosion pressure (Pmax): 7.9 - 9.0 bar, Minimum ignition energy: <3 milllijoules
Relative density:	N/A
Auto-ignition temperature:	Not flammable. Will not readily ignite.

9.2 **OTHER INFORMATION**

Specific gravity: ~ 1 Water solubility: Negligible Explosive properties: (Method: ASTM E 1226 Standard Test Method for Explosibility of Dust Clouds) Maximum rate of explosion pressure rise (KSt): 282 - 304 m*bars/sec Maximum explosion pressure (Pmax): 7.9 - 9.0 bar Minimum ignition energy: <3 milllijoules

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:	Oral: LD50 rat > 5 g/kg (a similar product). Inhalation: LC50 rat, 4 hr > 5 mg/L (a similar product). Dermal: LD50 rabbit > 5 g/kg (a similar product). Polyethylene wax: Oral rat LD50: 8 g/kg. Carbon Black: Dermal rabbit LD50: 3 g/kg, Oral rat LD50: 15400 mg/kg.
Skin Corrosion/Irritation:	No skin irritation.
Serious Eye Damage:	No eye irritation.
Inhalation:	N/A
Sensitization:	N/A
Mutagenicity:	Not mutagenic in AMES Test
Carcinogenicity:	The IARC (International Agency for Research on Cancer) has listed carbon black as "possibly carcinogenic to humans". However, Xerox has concluded that the presence of carbon black in this mixture does not present a health hazard. The IARC classification is based on studies evaluating pure, "free" carbon black. In contrast, toner is a formulation composed of specially prepared polymer and a small amount of carbon black (or other pigment). In the process of making toner, the small amount of carbon black becomes encapsulated within a matrix. Xerox has performed extensive testing of toner, including a chronic bioassay (test for potential carcinogenicity). Exposure to toner did not produce evidence of cancer in exposed animals. The results were submitted to regulatory agencies and published extensively.
Reproductive Toxicity:	N/A
STOT - Single Exposure:	N/A
STOT - Multiple Exposure:	N/A
Ingestion:	N/A
Hazard Class Information:	Carbon Black - Suspected of causing cancer if inhaled
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

12. ECOLOGICAL INFORMATION

12.1	**Eco toxicity:**	Acute Aquatic Toxicity: On available data, substance is not harmful to aquatic life. Chronic Aquatic Toxicity: On available data, substance is not harmful to aquatic life. Carbon Black: Toxicity to daphnia and other aquatic invertebrates EC50 > 5600 mg/L 24 h
12.2	**Degradability:**	N/A
12.3	**Bioaccumulation Potential:**	Bioaccumulation is unlikely
12.4	**Mobility in Soil:**	Insoluble in water
12.5	**PBT & vPvB Assessment:**	N/A
12.6	**Other Adverse Effects:**	Presents little or no hazard to the environment.

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:** This material is not subject to regulation as a hazardous material for shipping.

14.2 **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:** N/A

14.7 **Bulk Transport:** N/A

15. REGULATORY INFORMATION

15.1 **Regulatory Information:** OSHA Regulatory Status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Canada: This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR), and the SDS contains all the information required by the HPR. International Inventories: TSCA - Complies, DSL/NDSL - Complies, EINECS/ELINCS - Complies.

EPA Regulatory Information: U.S. Federal Regulations: SARA 313 - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372, Clean Water Act - This product is not regulated as a pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42), Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61) - This product is not regulated as a hazardous air pollutant (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA Reportable Quantity: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

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: N/A

Section 311 - Hazardous: N/A

15.3 **State Regulations:** California Proposition 65: Carbon black is regulated under California Proposition 65 only if in the form of "airborne, unbound particles of respirable size". Toner products do not contain carbon black in the form of "airborne, unbound particles of respirable size". Therefore, the requirements of Proposition 65 do not apply to this product. Carbon Black, CAS No. 1333-86-4, California Prop. 65 - Carcinogen. U.S. State Right-to-Know Regulations: Although this product contains substances included in some U.S. State Right-to-Know regulations, the particles are bound in a unique matrix and, therefore, the product does not pose any specific hazard.

15.4 **Other Regulatory Information:** N/A

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

Creation Date of this SDS: 11/13/2019

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

Ref: