

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

Product name: Dell 2230 Toner Cartridge
Part number: DELL2230

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: Primary Entry Routes: Inhalation. Target Organs: N/A. Acute Effects: N/A. Inhalation: Slight irritation of respiratory tract. Eye: Dust may cause irritation by mechanical abrasion. Skin: Slight irritation. Ingestion: None known. Carcinogenicity: N/A. Medical Conditions Aggravated By Long-Term Exposure: Accumulation of dust in the respiratory system may cause congestion. Chronic Effects: If these materials are used in a manner that could generate airborne particles (dust), it is recommended that the dust be treated as a NUISANCE PARTICULATE according to the American Conference of Government Industrial Hygienists (ACGIH)(TLV=10mg/m3).

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
Saturated Polyester Resin	Registered	70-85			
Carbon Black	1333-86-4	3-8		3.5mg/m3	
Magnetite	1309-38-2	7-15			
Metal-Complex Dye	Registered	<2			
Wax	Registered	1-5			
Silica	Registered	1-5			

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. Treat any irritation symptomatically. Call a physician if condition persists.
 Eye contact: In case of contact immediately flush with plenty of low pressure water for at least 15 minutes. Remove any contact lenses to ensure thorough flushing.
 Skin contact: Wash well with soap and running water.
 Ingestion: N/A

4.1.2 ADDITIONAL FIRST AID INFORMATION

Additional first aid information: After first aid, get appropriate in-plant paramedic or community medical support if serious signs and symptoms persist.
 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

Note to Physicians: N/A

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

Recommended Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide, or halon type extinguishers. Do not release runoff from fire control methods to sewers or waterways.
Extinguishing Media Not to be Used: N/A

5.2 SPECIAL HAZARD

Unusual Fire/Explosion Hazards: May form flammable dust-air mixture. Hazardous combustion products: Carbon monoxide, carbon dioxide, nitrogen oxide and smoke. Under certain conditions some aliphatic aldehydes and carboxylic acids may form.
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**

N/A

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: Small Spills: Scoop into a container for disposal, suction up remaining material with a high efficiency vacuum cleaner. Large Spills: Scoop into a container for disposal, suction up remaining material with a high efficiency vacuum cleaner. Containment: For large spills, avoid suspending particles, collect for later disposal. Do not release into sewers or waterways. Cleanup: No special requirements. Regulatory Requirement: N/A.

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:	PHYSICAL STATE: Solid. APPEARANCE: Black, free flowing powder.
Color:	Black
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:	Not Determined.

9.2 OTHER INFORMATION

VAPOR DENSITY (Air=1): Heavier than air. SPECIFIC GRAVITY: (H₂O=1) at 40C): 1.1. 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.

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:	N/A
Carcinogenicity:	In 1996, the IARC reevaluated carbon black as a GROUP 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that include particle overload of the lungs. Studies performed in animal models other than rats have not demonstrated as association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner operation containing carbon black demonstrated no association between exposure and tumor development and rats.
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 (16 mg/m3) exposure group. And a minimal to mild degree of fibrosis was noted 22% of the animals in the middle (4mg/m3) exposure group. But no pulmonary changes in the lowest (1 mg/m3) exposure group, the most relevant level to potential human exposure.
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

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:** DOT Transportation Data (49 CFR 172.101): Not specifically listed.

14.2 **Shipping Name:** N/A

14.3 **Hazard Class:** HMIS Rating: Health = 1 Fire = 1 Reactivity = 0

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:** N/A

EPA Regulatory Information: RCRA Hazardous Waste Number: Not listed (40 CFR 261.33). RCRA Hazardous Waste Classification: (40 CFR 261): Not classified. SARA Toxic Chemical (40 CFR 372.65): Not listed. SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ).

CERCLA Reportable Quantity: CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, sec. 3001; CWA sec.311 (b)(4); CWA, Sec. 307(a),CAA,Sec.112. CERCLA Reportable Quantity(RQ), Not listed.

15.2 **Superfund Information:**

Hazard Categories:

Immediate: N/A

Delayed: N/A

Fire: Flammability Classification: 1 Slight (HMIS, NFPA)

Pressure: N/A

Reactivity: N/A

Section 302 - Extremely Hazardous: N/A

Section 311 - Hazardous: N/A

15.3 **State Regulations:** Check your state's regulations that may specifically list copy machine toner.



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15.4 **Other Regulatory Information:** OSHA Regulations, Air Contaminant (29 CFR 1910.1000< Table Z-1-A): Particulates not otherwise regulated.

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 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:**DISCLAIMER**

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