



Material Safety Data Sheet

Revised Date: 011/18/04

SECTION 1 - CHEMICAL PRODUCTS & COMPANY IDENTIFICATION

Name: MICR Toner **P/N:** ST9445
Chemical Family: Toner **Product Use:** This toner is intended for use solely in cartridge filling operations
Manufacturer's Name: Source Technologies
Address: 2910 Whitehall Park Drive, Charlotte, NC 28273
Telephone: 704-969-7500

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	PERCENT (wt.)	CAS#	OSHA PEL	ACGIH TLV
Styrene Acrylic Copolymer	50-60	25787-47-9 25767-47-9	(1)	(1)
Iron Oxide	30-37	1317-61-9 1309-37-1 1309-61-9	(1)	5 mg/m ³ (2)
Polyethylene	2-5	9002-88-4	(1)	(1)
Copolymer	1-4	(3)(4)	(1)	(1)
Amorphous Silica (Modified)	1-5	(3)(5)	(1)	(1)
Particle Control Agent	1-3	(3)(6)	15 mg/m ³ (7) 5 mg/m ³ (8)	5 mg/m ³ (7)
Charge Control Agent	1-4	(3)(9)	(1)	(1)

- Notes:**
- (1) Specific workplace exposure limits have not been established.
 - (2) Total dust, measured as iron.
 - (3) Trade secret or patented molecule.
 - (4) New Jersey Trade Secret Registration Number 80100451-5022.
 - (5) New Jersey Trade Secret Registration Number 80100451-5015.
 - (6) New Jersey Trade Secret Registration Number 80100451-5000.
 - (7) Measured as total dust.
 - (8) Measured as respirable dust.
 - (9) New Jersey Trade Secret Registration Number 80100451-5002.

SECTION 3 - HAZARDS IDENTIFICATION

Primary Routes of Entry: Dust inhalation, skin contact.

Signs and Symptoms of Exposure: Toner on skin or mucus membranes (mouth, eyes & respiratory system) may cause discomfort. Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

Medical Conditions Aggravated by Exposure: None known at intended levels of use. Exposures to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.

Physical Hazards: As with most finely divided dusts, explosion is possible when an extremely high concentration of dust and an ignition source are present. Not a hazard when using adequate workplace controls.

POTENTIAL HEALTH EFFECTS:

Inhalation:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate low acute inhalation toxicity. As with exposure to high concentrations of any dust, minimal respiratory tract irritation may occur if excessive amounts of toner dust are inhaled.
	<u>Long Term Exposure</u>	--	Respirable size particles may collect in lungs and show up on X-rays (iron oxide). No adverse changes in the lungs result from this accumulation.
Skin Contact:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate this toner is not a skin irritant and is of low dermal toxicity.
	<u>Long Term Exposure</u>	--	Rare individuals may note skin rash with repeated contact.
Eye Contact:	<u>Short Term Exposure</u>	--	Toner may act as a mechanical irritant.
	<u>Long Term Exposure</u>	--	No adverse chronic effects known.
Ingestion:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate low acute oral toxicity. Exposure not probable with intended use.
	<u>Long Term Exposure</u>	--	No adverse chronic effects known.



Material Safety Data Sheet

SECTION 4 - FIRST AID MEASURES

Inhalation: Remove from area of exposure. Seek medical attention if difficulty in breathing is experienced.
Skin Contact: Wash affected area with soap and water. Seek medical attention if symptoms occur.
Eye Contact: Flush immediately with a large amount of running water for 15 minutes. Seek medical attention if irritation persists.
Ingestion: If conscious wash out mouth with water. Dilute stomach contents with 1-2 glasses of water. Seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Not applicable
Flammability Limits in Air: Not available
Extinguishing Media: Water, dry chemical, or foam.
Firefighting: Fire may produce hazardous decomposition products such as carbon dioxide, carbon monoxide, and unidentified organics. NIOSH approved self-contained breathing apparatus may be required.
Fire and Explosion Hazard: Like many finely divided materials, toner dust, in high concentration can form an explosive mixture in air which, if ignited, could result in a dust explosion.
Hazardous Combustion Products: Carbon dioxide, carbon monoxide, and low molecular weight organics.

Autoignition: Not available
UEL: Not available
LEL: Not available

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Occupational Spill: If a dust cloud is possible due to a spill, remove all sources of ignition such as sparks, open flames or static discharge to prevent ignition of the dust. Minimize dust generation during clean up. Sweep up spill with non-metallic broom and dustpan. To avoid possible dust explosion, do not use vacuum cleaners to cleanup large spills. Contain for disposal. Oil permeated sweeping compound may assist in the cleanup of large amounts of toner spilled on nonporous surfaces.

SECTION 7 - HANDLING AND STORAGE

Store away from oxidizing materials.
When handling, minimize generation of dust. Supply adequate ventilation.
STORE IN A COOL, DRY PLACE.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Mechanical room ventilation. Local exhaust to maintain concentrations below exposure limits.
Eye Protection: Safety goggles.
Clothing: Coveralls recommended.
Gloves: Dust impermeable gloves recommended.
Respirator: Respirator with NIOSH approval for dust at levels above the applicable exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Description: Black powdery material, with slight odor.
Pressurized: No
Vapor Density (Air = 1): Not applicable
Softening Point: Not determined
Specific Gravity: Not determined
Water Solubility: Negligible

Boiling Point: Not applicable
pH: Not applicable
Evaporation Rate: Not applicable
% Volatility: Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable
Incompatibilities: Strong oxidizing agents
Hazardous Decomposition: Carbon dioxide, carbon monoxide, and unidentified organics.
Polymerization: Will not occur.

Conditions to Avoid: None known



Material Safety Data Sheet

SECTION 11 - TOXICOLOGY INFORMATION

Acute Toxicity: Not expected to be acutely toxic: LD₅₀(oral, rat) and LC₅₀(inhalation, rat) expected to be >5000 mg/kg, based on data from similar toners.

Chronic Toxicity: Not expected to be chronically toxic. Long term inhalation exposure to excessive concentrations of iron oxide-containing dusts has resulted in a condition identified as siderosis, a relatively benign pneumoconiosis, caused by deposition of iron oxide particles in the lung. There is one report of two cases of pneumoconiosis from exposure to another minor component of this toner. Other toxicants such as crystalline silica and asbestos may have been present during these occupational exposure studies and responsible for this finding.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Impact Rating (0-4): Not available.

Acute Aquatic Toxicity: Not available.

Degradability: Not available.

Log Bioconcentration Factor (BCF): Not available.

Log Octanol/Water Partition Coefficient: Not available.

SECTION 13 - DISPOSAL INFORMATION

This product is not a listed or hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Not classified as a hazardous material or substance under DOT.

SECTION 15 - REGULATORY INFORMATION

All ingredients are listed on the **Toxic Substances Control Act (TSCA)** inventory, have been registered, or are exempt.

All ingredients are listed in **Australian Inventory of Commercial Substances (AICS)**, have been registered, or are exempt.

All ingredients are listed on the **European Inventory of Existing Commercial Substances (EINECS)** list, have been registered on the **European List of New Chemical Substances (ELINCS)**, or are exempt.

All ingredients are listed on the Canadian **Domestic Substances List (DSL)**, have been registered on the **Non-Domestic Substances List (NDSL)**, or are exempt.

Components present above the minimum quantities of listed chemicals in **EPCRA Section 313 Supplier Notification:** This product contains <5 percent of a zinc compound.

None of the ingredients in this product has a final reportable quantity (RQ) under **Emergency Planning and Community Right-to-Know Act (EPCRA)- Section 302: Extremely Hazardous Substances (EHS)** or notification requirements for EHS under **Section 304**.

This product contains no known materials at a level that the State of California has found to cause cancer, birth defects or other reproductive harm - **California Proposition 65**.

SECTION 16 - OTHER

Disclaimer: Data are most current known to Lexmark at the time of preparation and are believed to be accurate. No warranty as to their accuracy or completeness is expressed or implied.