Material Safety Data Sheet

** MSDS No.:** A-0131  
** Date:** 7/25/94  
** Revision:** 3/11/03

**Manufacturer:** Xerox Canada, Inc.  
**Distributor:** Xerox Corporation  
**Telephone# (s):** Safety Information: (800) 828-6571  
** Date:** 7/25/94  
** Revision:** 3/11/03  
**Safety Information:** (800) 828-6571  
**Health Emergency:** (585) 422-2177  
**Transportation Emergency (Chemetec):** (800)424-9300

**Address:**  
1333 North Service Road East  
Rochester, N.Y. 14644  
Oakville, Ontario Canada L6J 4A8

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**Trade Names/Synonyms:**  
4850/4890/DocuPrint 92C/DocuPrint 350-HC/DocuPrint 390-HC  
Cardinal /Ruby Dry Ink Highlight Color LPS  
Part No.: WH:6R825, 6R827, 502S64092; 502S64145, RX: 6R90231, 6R90242

**Chemical Name:** None

**WHMIS Status:** This is not a WHMIS controlled product

<table>
<thead>
<tr>
<th>Ingredients (% by wt.)</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier (40-50%)</td>
<td></td>
</tr>
<tr>
<td>Steel powder (&gt;99%)</td>
<td>7439-89-6</td>
</tr>
<tr>
<td>Toner (50-60%)</td>
<td></td>
</tr>
<tr>
<td>Styrene/butadiene polymer (85-95%)</td>
<td>9003-55-8</td>
</tr>
<tr>
<td>Red pigment (&lt;7%)</td>
<td>7585-41-3</td>
</tr>
<tr>
<td>Magenta pigment (&lt;5%)</td>
<td>980-26-7</td>
</tr>
<tr>
<td>Quaternary ammonium salt (&lt;2%)</td>
<td>3843-16-1</td>
</tr>
</tbody>
</table>

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**Section I - Product Identification**

**Primary Route of Entry:** Inhalation  
**Eye:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.  
Flush with water.  
**Skin:** Wash with soap and water.  
**Inhalation:** Remove from exposure.  
**Ingestion:** Dilute stomach contents with several glasses of water.

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**Section II - Emergency and First Aid**

**Symptoms of Overexposure:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**Medical Conditions Generally Aggravated by Exposure:** None when used as described by product literature.

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**Section III - Toxicology and Health Information**

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This material has been evaluated by Xerox Corporation. The toxicity data presented below is for toner only.

**Oral LD₅₀:** >5 g/kg (rats) practically non-toxic.¹  
**TLV:** 10mg/m³ (total dust)  
**Dermal LD₅₀:** >5 g/kg (rats) practically non-toxic.¹  
**PEL:** 15 mg/m³ (total dust)  
**Inhalation LC₅₀:** >5 mg/l (rats, 4 hr exposure) practically non-toxic.¹  
**5 mg/m³ (respirable dust)  
**20 mg/l (calculated 1 hr exposure) non-poisonous, DOT.¹**

**Eye Irritation:** Not an irritant.¹ 
**STEL:** N.E.  
**Skin Sensitization:** Not a sensitizer.¹  
**Ceiling:** N.E.  
**Skin Irritation:** Not an irritant.¹  
**XEL²:** 2.5 mg/m³ (total dust)  
**Human Patch:** Non-irritating, non-sensitizing.¹  
**0.4 mg/m³ (respirable dust)**  
**Mutagenicity:** No mutagenicity detected in Ames Assay.¹  
**Additional Information:** None

**Aquatic LC₅₀:** >1000 mg/l (fathead minnows) non-toxic.¹

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**Additional Information:** The results obtained from a Xerox sponsored, Chronic Toner Inhalation Study, demonstrated no lung change in rats for the lowest (1 mg/m³) exposure level (i.e. the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of the animals at the middle (4mg/m³) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m³) exposure level. These findings are attributed to “lung overloading”, a generic response to excessive amounts of any dust retained in the lungs for a prolonged period. This study was conducted using a special test toner to comply with EPA testing protocol. The test toner was ten times more respirable than commercially available Xerox toner, and would not be functionally suitable for Xerox equipment.

¹ Based on testing similar xerographic toner materials.  
² XEL-Xerox Exposure Limit

N.A. - Not Applicable  
N.E. - None Established  
N.D. - Not Determined  

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**602E03170**
Cardinal/ Ruby Dry Ink Highlight Color LPS

Section IV - Physical Data

Appearance/Odor: Cardinal red powder / faint odor  Softening Range: N.A.
Boiling Point: N.A.  Melting Point: N.A.
Solubility in Water: Negligible  Specific Gravity (H₂O=1): >1
Evaporation Rate: N.A.  Vapor Pressure (mm Hg): N.A.
Vapor Density (Air=1): N.A.  pH: N.A.
Volatile: N.A.% (Wgt)  N.A. % (Vol.)

Section V - Fire and Explosion Data

Flash Point (Method Used): N.A.  Flammable Limits  LEL: N.A.
UEL: N.A.
Extinguishing Media: Water, dry chemical, carbon dioxide or foam.
Special Fire Fighting Procedures: Avoid inhalation of smoke. Wear protective clothing and self-contained breathing apparatus.
Fire and Explosion Hazards: Dry ink is a combustible powder. Like most organic materials in powder form, when dispersed in air, it can form explosive mixtures.

Section VI - Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur
Hazardous Decomposition Products: Products of combustion may be toxic. Avoid breathing smoke.
Incompatibility (Materials to Avoid): None

Section VII - Special Protection Information

Respiratory Protection: None required when used as intended.
Eye Protection: None required when used as intended.
Protective Gloves: None required when used as intended.
Other: For use other than normal customer - operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required. For more information, contact Xerox.

Section VIII - Special Precautions

Handling and Storage: None
Conditions to Avoid: Avoid prolonged inhalation of excessive dust.

Section IX - Spill, Leak, and Disposal Procedures

For Spills or Leakage: Sweep up or vacuum spilled toner and carefully transfer into sealable waste container. Sweep slowly to minimize generation of dust during clean-up. If a vacuum is used, the motor must be rated as dust tight. A conductive hose bonded to the machine should be used to reduce static buildup (See Section V). Residue can be removed with soap and cold water. Garments may be washed or dry cleaned, after removal of loose dry ink.

Waste Disposal Method: This material is not a hazardous waste according to Federal Regulation 40 CFR 261. State and Local waste disposal requirements may however, be more restrictive. Consult with the appropriate State and Local authorities for specific information. Incinerate only in a closed container.

Section X - Transportation Information

DOT Proper Shipping Name: N.A. (Not Regulated)  ID Number: N.A.
Hazard Classification: N.A.  Packing Group: N.A.