**MATERIAL SAFETY DATA SHEET**

**SECTION 1**
IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- **Product Name:** Canon GPR-2 Black Toner for Copier
- **Product Code:** F42-3201-700
- **Manufacturer:** Canon Inc.
  30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan
- **Phone:** 03-3758-2111
- **Supplier:** Canon USA, Inc.
  One Canon Plaza, Lake Success, NY 11042
  Phone: 1-800-OK-CANON
- **MSDS #:** TN0259-0101

**SECTION 2**
COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Weight %</th>
<th>EU Symbol</th>
<th>EU R-Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>USA OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EU ILV</th>
<th>DFG MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date of Issue:** 98/12/1

**Revised:**
Carcinogen

Chemical Name | CAS# | Reference
---------------|------|-------------
None

Other Ingredient(s)

<table>
<thead>
<tr>
<th>Chemical Generic Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester resin</td>
<td>45-60</td>
</tr>
<tr>
<td>Iron oxide (1317-61-9)</td>
<td>40-55</td>
</tr>
</tbody>
</table>

SECTION 3  HAZARDS IDENTIFICATION

Emergency Overview: Black fine powder, slight plastic odor.

Potential Health Effects and Symptoms:

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

Ingestion: Ingestion is not applicable route of entry for intended use.

Eye: May cause eye irritation.

Skin: Unlikely to cause skin irritation.

Chronic Effects: Not known.

Medical Conditions generally known to be Aggravated by Exposure: Not identified.

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SECTION 4  FIRST AID MEASURES

First Aid Measures:

Inhalation:  Remove victim to fresh air.
            Get medical attention if symptoms persist.

Ingestion:  Dilute stomach contents with several glasses of water.
            Get medical attention if symptoms persist.

Eye:       Flush with running water for at least 15 minutes.
            If irritation persist, get medical attention.

Skin:      Wash with soap and water.
            If irritation persist, get medical attention.

Note to Physicians:  None

SECTION 5  FIRE FIGHTING MEASURES

Fire Fighting Measures

Extinguishing Media:  CO2, water, dry chemicals

Unsuitable Extinguishing Media:  None

Special Fire Fighting Procedures:  None

Unusual Fire and Explosion Hazards:  Toner material, like most organic material in powder form, is capable of creating a dust explosion.

Fire and Explosive Properties

Flash Point (°C):  No data available

Flammable (Explosive) Limits:  No data available

Autoignition Temperature  No data available


Autoflammability:  Not applicable

Explosive Properties:  See "Unusual Fire and Explosion Hazards".

Oxidizing Properties:  No data available

Hazardous Combustion Products:  CO2, CO

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SECTION 6  ACCIDENTAL RELEASE MEASURES

Personal Precautions: 
Avoid breathing dust.
Use with adequate ventilation.

Environmental Precautions: 
Do not wash away into sewer.

Method for Cleaning Up: 
Sweep material onto paper and carefully transfer to a sealable waste container.
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.

SECTION 7  HANDLING AND STORAGE

Handling: 
Avoid breathing dust.
Use with adequate ventilation.
Wash thoroughly after handling.

Storage: 
Keep out of reach of children.
Keep from contact with oxidizing materials.

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: 
USA OSHA(TWA/PEL): 15mg/m3 (Total dust)
5mg/m3 (Respirable fraction)
ACGIH(TWA/TLV): 10mg/m3 (Inhalable particulate)
3mg/m3 (Respirable particulate)
DFG (MAK): 
4 mg/m3 (Inhalable fraction)
1.5 mg/m3 (Respirable fraction) (Also refer to SECTION 2)

Engineering Controls: 
Good general ventilation should be sufficient under intended use.

Personal Protection Equipment(s):

Respiratory Protection: 
☐ Required
☒ Not required

Eye/Face Protection: 
☐ Required
☒ Not required

Skin Protection: 
☐ Required
☒ Not required

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### SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black fine powder</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight plastic odor</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point / Range (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point / Range (°C)</td>
<td>100 - 150°C (Softening point)</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoflammability</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>See &quot;Unusual Fire and Explosion Hazards&quot;</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density / Specific Gravity</td>
<td>1.4 - 1.8</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Fat Solubility</td>
<td>Partially soluble in toluene and xylene.</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/Water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporating Rate</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### SECTION 10  STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable ☑  Unstable ☐</td>
</tr>
<tr>
<td>Conditions to Avoid:</td>
<td>None</td>
</tr>
<tr>
<td>Materials to Avoid:</td>
<td>Strong oxidizers</td>
</tr>
<tr>
<td>Hazardous Decomposition Products:</td>
<td>Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.</td>
</tr>
</tbody>
</table>

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Revised:
Hazardous Polymerization:
Condition to Avoid:

O May occur  O Will Not occur
None

SECTION 11  TOXICOLOGICAL INFORMATION

Acute Toxicity

Inhalation: (Data from similar toner materials): LC50: >5mg/L/4hr (rats)

Ingestion: Oral LD50: >5000mg/kg (rats)

Eye: Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC based on test data of rabbits.

Skin: Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC based on test data of rabbits.

Sensitization: No sensitizer according to Annex I of EU Directive 67/548/EEC and strong sensitizer list of FHSA.

Mutagenicity: Negative (Ames Test: Salmonella typhimurium)

Reproductive Toxicity: No reproductive toxic substances according to Annex I of EU Directive 67/548/EEC, California Proposition 65 and DFG.

Carcinogenicity: No human carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA(USA) regulation, California Proposition 65 and Annex I of EU Directive 67/548/EEC.

Others: Sub-acute Toxicity - Rats; 90 days inhalation Test
Test sample: magnetic toner
(mean volume diameter is 6.0 μm)

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SECTION 12  ECOLOGICAL INFORMATION

Mobility: No data available
Persistence / Degradability: No data available
Bioaccumulation: No data available
Ecotoxicity: No data available
Other Adverse Effects: No data available

SECTION 13  DISPOSAL CONSIDERATION

Method of Disposal: The waste toner could be considered as plastic powder waste. Disposal should be subject to federal, state or local laws.

SECTION 14  TRANSPORTATION INFORMATION

UN #: None
UN Shipping Name: None
UN Classification: None
UN Packing Group: None
Special Precautions: None

SECTION 15  REGULATION INFORMATION

EU Information
Information on the Label Symbol & Indication: Not required.
R-Phrase: Not required.
S-Phrase: Not required.
MATERIAL SAFETY DATA SHEET

24 hr. Emergency Contact
CHEMTREC: 800-424-9300

DANGEROUS COMPONENT(S):
None

SPECIFIC PROVISIONS IN RELATION OF MAN OR THE ENVIRONMENT:
76/769/EEC: Not regulated.
(EEC)2445/92: Not regulated.
OTHERS: None

USA INFORMATION
INFORMATION ON THE LABEL:
Signal Word: Not required.
Hazard Warning: Not required.

SAFETY ADVICE:
Not required.

Hazardous Component(s):
None

SARA TITLE III §313:
Chemical Name Weight
None

CALIFORNIA PROPOSITION 65:
Chemical Name Weight
None

SECTION 16 OTHER INFORMATION
None

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Literature Reference:
- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens
- DFG, List of MAK and BAT Values

Abbreviations:
"EU" stands for European Union.
"OSHA PEL" stands for PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration.
"ACGIH TLV" stands for TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
"DFG MAK" stands for MAK(Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.
"TWA" stands for Time Weighted Average.
"IARC" stands for International Agency for Research on Cancer.
"NTP" stands for National Toxicology Program (USA).
"OSHA HCS" stands for Occupational Safety and Health Act, Hazard Communication Standard.
"FHS" stands for Federal Hazardous Substances Act.

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