Canon NPG-9 Black Toner for NP Copier

Manufacturer: Canon Inc. 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Phone # 03-3758-2111
Supplier: Canon USA, Inc., One Canon Plaza, Lake Success, NY, 11042, USA

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Weight %</th>
<th>EU Symbol/ R-Phrase</th>
<th>USA OSHA PEL</th>
<th>ACGIH TLV</th>
<th>EU ILV</th>
<th>DFG MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene acrylate copolymer</td>
<td>Confidential</td>
<td>45-55</td>
<td>None/ None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
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<tr>
<td>Iron oxide</td>
<td>1317-61-9/ 215-277-5</td>
<td>40-50</td>
<td>None/ None</td>
<td>Not established</td>
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<tr>
<td>Amorphous silica</td>
<td>7631-86-9/ 231-545-4</td>
<td>1-2</td>
<td>None/ None</td>
<td>20mppcf, 80(mg/m³)%SiO₂</td>
<td>10mg/m³(TWA)</td>
<td>Not established</td>
<td>4mg/m³ (Inhalable fraction)</td>
</tr>
</tbody>
</table>

SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview: Black fine powder, slight plastic odor.

Potential Health Effects and Symptoms:

Inhalation:
- Exposure to excessive amounts of dust may cause physical irritation to respiratory tract.

Ingestion:
- Practically non-toxic. Ingestion is a minor route of entry for intended use of this product.

Eye:
- May cause transient slight irritation.

Skin:
- May be non-irritant.

Chronic Effects:
- Prolonged inhalation of excessive amounts of dust may cause lung damage. Use of this product as intended does not result in inhalation of excessive amounts of dust.

Medical Conditions Generally known to be Aggravated by Exposure:
- Not determined
SECTION 4     FIRST AID MEASURES

First Aid Measures:

Inhalation:
If symptoms are experienced, move victim to fresh air and obtain medical advice.

Ingestion:
Rinse mouth. Drink 1 or 2 glasses of water. If irritation or discomfort occurs, obtain medical advice immediately.

Eye:
Do not allow victim to rub eye(s). Flush with lukewarm, gently flowing water for 5 minutes or until particle is removed. If irritation persists, obtain medical attention.

Skin:
Wash with soap and water. If irritation persists, obtain medical advice.

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:
Can form explosive dust-air mixtures when finely dispersed in air.

Fire and Explosive Properties (See also Section 9):

Hazardous Combustion Products:
CO2, CO

Other Properties:
Not available

SECTION 6     ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Avoid breathing dust.

Environmental Precautions:
Do not wash away into sewer.

Method for Cleaning Up:
Sweep slowly spilled powder on to paper, and carefully transfer into a waste container. Clean remainder with wet paper, wet cloth or a vacuum cleaner. If a vacuum cleaner is used, it must rate as a dust explosion-proof type. Fine powder can form explosive dust-air mixtures.

SECTION 7     HANDLING AND STORAGE

Handling:
Avoid breathing dust.
Use with adequate ventilation.

Storage:
Keep out of the reach of children.
Keep away from oxidizing materials.

Specific Uses:
Toner for electrophotographic apparatus. For more information, please refer to the instruction of this product.
SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

USA OSHA PEL (TWA): 15 mg/m$^3$ (Total dust), 5 mg/m$^3$ (Respirable fraction)
ACGIH TLV (TWA): 10 mg/m$^3$ (Inhalable fraction), 3 mg/m$^3$ (Respirable fraction)
DFG (MAK): 4 mg/m$^3$ (Inhalable fraction), 1.5 mg/m$^3$ (Respirable fraction)
(Also refer to SECTION 2)

Engineering Controls:
Use adequate ventilation.

Personal Protection Equipment(s):

Respiratory Protection: ☐ Required  ☑ Not Required
Eye/Face Protection: ☐ Required  ☑ Not Required
Skin Protection: ☐ Required  ☑ Not Required

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black fine powder
Odor: Slight plastic odor
pH: Not applicable
Boiling Point/Range(°C): Not applicable
Melting Point/Range(°C): 100 - 150 (Softening point)
Decomposition Temperature(°C): >200
Flash Point(°C): Not applicable
Flammable (Explosive) Limits: Not applicable
Autoignition Temperature(°C): Not available

Explosive Properties: Can form explosive dust-air mixtures when finely dispersed in air.
Oxidizing Properties: Not available
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Density / Specific Gravity: 1.4-1.6
Water Solubility: Negligible
Fat Solubility: Partially soluble in toluene and xylene.
Partition Coefficient (n-Octanol/Water): Not applicable
Percent Volatile: Negligible
Evaporation Rate: Not applicable
Viscosity (mPa s): Not applicable
SECTION 10  STABILITY AND REACTIVITY

Stability:  ☑ Stable  ☐ Unstable

Conditions to Avoid:  None

Materials to Avoid:  Strong oxidizers

Hazardous Decomposition Products:  CO, CO2

Hazardous Polymerization:  ☑ May Occur  ☐ Will Not Occur

SECTION 11  TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Estimate: Rat, LD50 > 5000mg/kg

Eye:
Estimate: Rabbit, transient slight conjunctival irritation only.

Skin:
Estimate: Rabbit, non-irritant

Sensitization:
Estimate: Guinea pig, skin: Non-sensitizing

Mutagenicity:
Ames Test (S. typhimurium): Negative

Reproductive Toxicity:
Not available

Carcinogenicity:
Not available

Others:
Chronic effects:
Muhle et al. reported pulmonary response upon chronic inhalation exposure in rats to a toner enriched in respirable-sized particles compared to commercial toner. No pulmonary change was found at 1 mg/m³ which is most relevant to potential human exposure. A minimal to mild degree of fibrosis was noted in 22% of the animals at 4 mg/m³, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m³. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.

Date of Issue:  January 25, 1994  Revised:  September 2, 2002
SECTION 12  ECOLOGICAL INFORMATION

Mobility:  Not available
Persistence / Degradability:  Not available
Bioaccumulation:  Not available
Ecotoxicity:  Not available
Other Adverse Effects:  Not available

SECTION 13  DISPOSAL CONSIDERATION

Method of Disposal:
DO NOT put toner or toner container into fire; heated toner may cause severe burns. DO NOT shred a toner container, unless dust-explosion preventing measures are taken. Finely dispersed particles form explosive mixtures in air. Disposal should be subject to federal, state or local laws.

SECTION 14  TRANSPORT INFORMATION

UN #:  None
UN Shipping Name:  None
UN Classification:  None
UN Packing Group:  None
Marine Pollutant:  Yes
Chemical name (wt%):
No
Special Precautions:  None

SECTION 15  REGULATORY INFORMATION

< EU Information >

Information on the Label:
Symbol & Indication:  Not required
R-Phrase:  Not required
S-Phrase:  Not required
Dangerous Component(s):  None
Special Precautions under 1999/45/EC Annex V:  Not required
Specific Provisions in Relation to Protection of Man or the Environment:
76/769/EEC:  Not regulated
(EC)2037/2000:  Not regulated
(EEC)2455/92:  Not regulated
Others:  None

< USA Information >

Information on the Label:
Signal Word:  Not required
Hazard warning:  Not required

Date of Issue:  January 25, 1994
Revised:  September 2, 2002
Safety Advice:
Not required

Hazardous Component(s):
None

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<th>SARA Title III §313:</th>
<th>Chemical Name</th>
<th>Weight %</th>
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<table>
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<tr>
<th>California Proposition 65:</th>
<th>Chemical Name</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>None</td>
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</tbody>
</table>

< Canada Information >
WHMIS Controlled Product:
Not a controlled product

< Australia Information >
Statement of Hazardous Nature:
Not classified as hazardous according to criteria of NOHSC.

SECTION 16 OTHER INFORMATION

Revised information from the previous version:
Entirely revised

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
- Canada Workplace Hazardous Materials Information System

Abbreviations:
"EU" stands for European Union.
"OSHA PEL" stands for PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration(USA).
"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).
"DHHS HCS" stands for Occupational Safety and Health Act, Hazard Communication Standard(USA).
"FHSA" stands for Federal Hazardous Substances Act(USA).
"WHMIS" stands for Workplace Hazardous Materials Information System.

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