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# MATERIAL SAFETY DATA SHEET

MSDS #: TN1384-0101 Product Code: 0401B / F42-6802

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

**Product Name:** Canon imagePRESS C1 Black Starter

**Product Code:** 0401B / F42-6802

Manufacturer: Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan Ph# 03-3758-2111.

**Supplier:** Canon USA, Inc. One Canon Park, Melville, NY 11747, USA

**Phone #:** 1-800-OK-CANON 24Hr. Emergency CHEMTREC# 1-800-424-9300

SECTION 2	COMPOSITION/INFORMATION ON INGREDIENTS						
< Ingredient(s) > Chemical Name / Generic Name	CAS #/ EC #	Weight	EU Symbol/ R-Phrase	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Iron oxide	1317-61-9/ 215-277-5	70-80	None / None	Not established	Not established	Not established	Not established
Iron oxide	1309-37-1/ 215-168-2	5-10	None / None	Not established	5 mg/m³ (TWA)	Not established	1.5 mg/m³ (Respirable fraction)
Polyester resin	Confidential	5-10	None / None	Not established	Not established	Not established	Not established
Phenol polymer	Confidential	5-10	None / None	Not established	Not established	Not established	Not established
Carbon black	1333-86-4/ 215-609-9	<1	None / None	3.5 mg/m³ (TWA)	3.5 mg/m³ (TWA)	Not established	Not established

< Carcinogen >

Chemical NameCAS #ReferenceCarbon Black (<1%)</td>1333-86-4IARC: Group 2B. NTP; OSHA; Annex I to

67/548/EEC: Not listed.

# SECTION 3 HAZARDS IDENTIFICATION

#### **EU Classification:**

Not classified as dangerous.

# **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

Low acute toxicity. 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



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### 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.

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SECTION 8 EXPOSE	URE CONTR	OLS / PERSONAL PROTECTION					
<b>Exposure Guidelines:</b>							
USA OSHA PEL (TWA): 15 mg/m³ (Total dust), 5 mg/m³ (Respirable fraction)  ACGIH TLV (TWA): 10 mg/m³ (Inhalable fraction), 3 mg/m³ (Respirable fraction)  DFG MAK: 4 mg/m³ (Inhalable fraction), 1.5 mg/m³ (Respirable fraction)  (Also refer to SECTION 2)							
Engineering Controls: Use adequate ventilation.							
Personal Protection Equipm	nent(s):						
Respiratory Protection:	☐ Required  Not Requ	ired					
<b>Eye/Face Protection:</b>	tion: ☐ Required ☑ Not Required						
Skin Protection:	Skin Protection: ☐ Required ☐ Not Required						
SECTION 9 PHYSIC	CAL AND CH	EMICAL PROPERTIES					
Appearance:		Black fine powder					
Odor:		Slight plastic odor					
pH:		Not applicable					
<b>Boiling Point/Range(°C):</b>		Not applicable					
Melting Point/Range(°C):		85-120 (Softening point)					
<b>Decomposition Temperatur</b>	e(°C):	> 200					
Flash Point(°C):		Not applicable					
Flammable (Explosive) Lim	its:	Not applicable					
Autoignition Temperature(	°C):	Not available					
Flammability:		Not-flammable (Test method: Directive 92/69/EEC, A10 Flammability (Solids))					
<b>Explosive Properties:</b>		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:		3.0-5.0					
Water Solubility:		Negligible					
Fat Solubility:		Partially soluble in toluene and xylene.					
Partition Coefficient (n-Oct	anol/Water):	Not applicable					
Percent Volatile:		Negligible					
<b>Evaporation Rate:</b>		Not applicable					
Viscosity (mPa s):		Not applicable					

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SECTION 10 S	TABILITY AND	REACTIVITY		
Stability:		Stable     Unstable		
Conditions to Avoid:		None		
Materials to Avoid:		Strong oxidizers		
<b>Hazardous Decomposition Products:</b>		CO, CO2		
Hazardous Polymerization:		☐ May Occur  ☑ Will Not Occur		
Conditions to Avoid:		None		
SECTION 11 T	OXICOLOGICA	AL INFORMATION		
Acute Toxicity: Inhalation: Not available				
Ingestion: Estimate: Rat,	LD50 > 2000 mg/	kg (See Section 16)		
Eye: Estimate: Rabl	oit, transient slight	conjunctival irritation only. (See Section 16)		
Skin: Estimate: Rab	bit, non-irritant (Se	ee Section 16)		
Sensitization: Not available				
Mutagenicity: Estimate: Ame	es Test (S. typhimu	urium, E. coli): Negative (See Section 16)		
Reproductive Toxici Not available	ty:			
Carcinogenicity:				

The IARC evaluated carbon black as a Group 2B carcinogen, 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 exposure to powdered carbon black at levels that induce particle overload of the lung. However, there is a two-year inhalation study of a toner containing carbon black which demonstrated no association between toner exposure and tumor development in rats.

#### 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/m<sup>3</sup>, and a mild to moderate degree of fibrosis was observed in 92% of the animals at 16 mg/m<sup>3</sup>. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lung for a prolonged interval.

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SECTION 12 E	COLOGIC	AL INFORMATION					
Mobility:	No	ot available					
Persistence / Degrad	ability: No	Not available					
Bioaccumulation:		Not available					
Ecotoxicity:	Es Es	timate: Fish (Rainbow trout), 96h LL50 > 1000 mg/l (WAF) timate: Crustaceans (Daphnia magna), 48h EL50 > 1000 mg/l (WAF) timate: Algae (Scenedesmus subspicatus), EbL50(72h), ErL50(0-72h) > 1000 mg/l (VAF) (See Section 16)					
Other Adverse Effec	ts: No	ot available					
SECTION 13 D	ISPOSAL (	CONSIDERATIONS					
Method of Disposal:  Disposal should be	e subject to f	ederal, state and local laws.					
SECTION 14	RANSPOR	T INFORMATION					
UN #:	None						
UN Shipping Name:	None						
UN Classification:	None						
UN Packing Group:	None						
Marine Pollutant:	☐ Yes C	Chemical name (wt%):					
Special Precautions:	None						
SECTION 15	EGULATO	DRY INFORMATION					
< EU Information >							
Information on the Symbol & Indica		equired					
R-Phrase: Not required							
S-Phrase: Not required							
Dangerous Com Not required	ponent(s):						
Special Precaution Not required	ons under 19	999/45/EC Annex V:					
_		to Protection of Man or the Environment:					
76/769/EEC:	Not regulate						
(EC)2037/2000:	: Not regulated						
(EC)304/2003:	Not regulated						
Others:	None						

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< USA Information >

Information on the Label under OSHA:

Signal Word: Not required

**Hazard warning:** 

Not required

Safety Advice: Not required

**Hazardous Component(s):** 

Not required

**SARA Title III §313:** 

Chemical Name Weight %

None

**California Proposition 65:** 

Chemical Name Weight %

None

< 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

Estimate: Estimate based on test data on similar toner/developer/drum and/or the raw materials of this product.

#### 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
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67/548/EEC, 1999/45/EC
- EU Regulation (EC)2037/2000, (EC)304/2003
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances[NOHSC:1008]

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Abbreviations:

EU: European Union.

OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA). ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.

EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC.

DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.

TWA: Time Weighted Average. STEL: Short Term Exposure Limit.

IARC: International Agency for Research on Cancer.

NTP: National Toxicology Program (USA).

WAF: Water Accommodated Fraction

LL: Lethal Loading rate EL: Effective Loading rate

OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).

FHSA: Federal Hazardous Substances Act (USA).

WHMIS: Workplace Hazardous Materials Information System. NOHSC: National Occupational Health and Safety Commission.

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