

Material Safety Data Sheet #58356701

57100101 Developer

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: B8300 Developer, P/N 57100101

Supplier Identification

Oki Data Americas, Inc.

2000 Bishops Gate Blvd., Mount Laurel, NJ 08054-4620, USA

1-800-654-3282 (1-800-OKI-DATA)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance[]

Preparation[X]

Ingredient	CAS No.	Proportion	OSHA PEL	ACGIH TLV	MAK-TWA	NOHSC- TWA
Ferrite	68186-94-7	>90%	Not listed	Not listed	Not listed	Not listed
Polyester resin	213077-22-6	< 5%	Not listed	Not listed	Not listed	Not listed
Silicone resin	123127-08-2	< 3%	Not listed	Not listed	Not listed	Not listed
Carbon black	1333-86-4	< 1%	3.5 mg/m ³	3.5 mg/m ³	Not listed	3 mg/m ³

3. HAZARDS IDENTIFICATION

Most Important Hazards and Effects of the Products

Human Health Effects

There are no anticipated carcinogenic effects from exposure based on animal tests performed using toner. When used as intended according to instructions, studies do not indicate any symptoms of fibrosis will occur.

Environmental Effects: No data are available.

Specific hazards: None

4. FIRST AID MEASURES

Route(s) of Entry

Inhalation, ingestion (possible, but very unusual).

First Aid Measures

Inhalation

Remove to fresh air. If symptoms occur, consult medical personnel.

Skin Contact

Wash with soap and water for 15 minutes or until particles are removed. If irritation occurs, consult medical personnel.

Eye Contact

Flush eyes immediately with water for 15 minutes. If irritation occurs, consult medical personnel.

Ingestion

Rinse mouth with water and drink several glasses of water. If irritation or discomfort occurs, consult medical personnel.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Water, CO₂, foam and dry chemicals

Special Fire fighting Procedures: None

Fire and Explosion Hazards: Like most finely divided organic powders, it may form an explosive mixture.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up

Wipe off with paper or cloth. *Do not use vacuum cleaner when a large amount is released.* The developer, like most finely divided organic powders, is capable of creating a dust explosion.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: None

Safe Handling Advice

Use of a dust mask is recommended when handling a large quantity of developer or during long term exposure, as with any non-toxic dust. Try not to disperse the particles.

Storage

Technical Measures: None

Storage Conditions: Keep container closed. Store in a cool and dry place. Keep out of the reach of children.

Incompatible Products: None

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: Not required under intended use.

Exposure limit values

OSHA-PEL(USA): 15 mg/m³ Total Dust, 5 mg/m³ Respirable Dust

ACGIH-TLV(USA): 10 mg/m³ Total Dust, 3 mg/m³ Respirable Dust

Personal Protective Equipment

Respiratory Protection: Not required under intended use.

Hand Protection: Not required under intended use.

Eye Protection: Not required under intended use.

Skin Protection: Not required under intended use.

Other Protective equipment

Use of a dust mask and goggles are recommended when handling a large quantity of developer or during long term exposure, as with any non-toxic dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Form: Powder

Color: Black

Odor: Odorless

Chemical Properties

Ph: Not applicable

Boiling/Melting Point: Not applicable

Flash Point: Not applicable

Explosion Properties: No data

Density(g/cm³): 6 (bulk density = 2.35)

Solubility in water: Negligible

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Reactions: Dust explosion, like most finely divided organic powders.

Conditions to avoid: Electric discharge, throwing into fire.

Materials to avoid: Oxidizing materials

Hazardous Decomposition Products: CO, CO₂ and NO_x

Further Information: None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Ingestion (oral): LD₅₀ > 2000mg/kg (Rats)—estimated from constituent components

Inhalation: LC₅₀ > 5.71mg/L

Eye irritation: Not an irritant (Rabbits)

Skin irritation: Not an irritant (Rabbits)

Skin sensitizer: No sensitization

Mutagenicity: Negative (Ames Test)

Carcinogenicity

In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Chronic Effect

In a study in rats of chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16 mg/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4 mg/m³) exposure group, but no pulmonary change was reported in the lowest (1 mg/m³) exposure group, the most relevant level to potential human exposures.

12. ECOLOGICAL INFORMATION

No data are available.

13. DISPOSAL CONSIDERATIONS

Waste from residues

Waste material may be dumped or incinerated under conditions which meet all federal, state and local environmental regulations.

Contaminated Packaging

Waste may be disposed or incinerated under conditions which meet all federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

UN Classification: None

Land, DOT(USA): None

Sea, IMDG: None

Air, ICAO-TI: None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act)

All chemical substances in this product comply with all applicable rules or order under TSCA.

SARA (Superfund Amendments and Reauthorization Act) Title III

302 Extreme Hazardous Substance: None

311/312 Hazard Classification: None

EU Information

1999/45/EC and 67/548/EEC

Symbol & Indication: Not required

R-Phrase: Not required

76/769/EEC: All chemical substances in this product comply with all applicable rules or order under 76/769/EEC.

16. OTHER INFORMATION

NFPA Rating(USA): Health=1 Flammability=1 Reactivity=0

WHMIS Legislation (Canada): This product is not a controlled product.

References

IARC (1996) monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 65, "Printing Process And Printing Inks, Carbon Black and Some Nitro Compounds," Lyon, pp. 149-261

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka, and R.Mermelstein(1991) "Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats." *Fundamental and Applied Toxicology* 17, pp. 280-299.

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