

Material Safety Data Sheet

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MSDS No.: TN152-00YW

Date

Revision

2006.09.14

1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer :OKI Europe Ltd
Address :1 OKI Way, Wardpark North
Cumbernauld, Scotland, G68 0FQ
Telephone Number: +44 1236 502502

Product Name

B930
Toner(Black)

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Nature:

| Chemical Name | Ingredients (% by wt.) | CAS Registry Number |
|----------------------------|------------------------|---------------------|
| Stylene/acrylate copolymer | 75 – 85 | |
| Polyolefin wax | 1 – 10 | |
| Carbon Black | 1 – 10 | 1333-86-4 |
| Amorphous silica | 1 – 10 | |
| Titanium dioxide | 1 – 10 | |

UN Hazard Class : None

UN Number : None

3. HAZARDOUS IDENTIFICATION

Physical and Chemical Hazard: There are no significant hazards associated with this product.
Adverse Human Health Effects: There are no significant hazards associated with this product.
Environmental Effects: There are no significant hazards associated with this product.

4.FIRST-AID MEASURES

Eye contact : Flush with a large amount of water for at least 15 minutes. Seek medical advice.
Skin contact : Wash with soap and water.
Inhalation : Remove from exposure and provide fresh air. Rinse mouth with water.
Ingestion : Rinse mouth with water. Give several glasses of water to drink and seek medical advice.

5. FIRE-FIGHTING MEASURES

- Specific method : In case of fire use extinguishing media.
When in a machine, treat as an electrical fire.
- Extinguishing media : Water spray, Foam, Dry chemicals, CO₂
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6. ACCIDENTAL RELEASE MEASURES

Shut off ignition sources. For small spills, sweep up or soak up with damp cloth.
For large spills, wear proper protective equipment and place waste material in closed container.
Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

- Handling : Do not incinerate toner or a toner cartridge. Do not disassemble a cartridge.
- Storage : Keep in cool, dry and well-ventilated area. Keep out of reach of children.
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8. EXPOSURE CONTROL /PERSONAL PROTECTION

- Control Parameter
ACGIH TLV (2006) : 10 mg/m³ (Total)
3 mg/m³ (Respirable)
- Precautionary Measured : None required when used as intended in OKI equipment.
For use other than normal customer operating procedures (such as in bulk toner processing facilities), local exhaust ventilation may be required.
- Personal Protective Equipment: None required when used as intended in OKI equipment.
For use other than normal customer operating procedures (such as in bulk toner processing facilities), protective glove, goggles and respirators may be required.
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9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---------------------------------------|---------------------------|------------------------|----------------|
| Appearance/Odor: | Black Powder / Faint Odor | Vaper Pressure: | Not applicable |
| Boiling Point(OC): | Not applicable | Softening Point: | 85-100°C |
| Volatile (%): | Not applicable | Initial Boiling Point: | Not applicable |
| Specific Gravity(H ₂ O=1): | 1 | Other Data: | None |
| Solubility in water: | Negligible | | |

10. STABILITY AND REACTIVITY

- Flash Point(OC) : Not applicable Auto-Ignition Temperature: Not applicable
- Explosion Limit : Not applicable
- Flammability : Not flammable under conditions of use
- Spontaneous Combustibility / Reactivity with water : None
- Self-reactivity / Explosive : None
- Dust Explosive : Like most organic materials in powder form, it can form explosive mixtures when dispersed in air.
- Stability and Reactivity : Stable
- Other Data : None
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11. TOXICOLOGICAL INFORMATION

| | | | |
|------------------------|---------------------------------|----------------------------------|-------------------------------|
| Skin Corrosive | : None | | |
| Skin Irritant (rabbit) | : Not an irritant ¹⁾ | Eye Irritant (rabbit): | Not an irritant ¹⁾ |
| Human Patch | : Not available ¹⁾ | | |
| Sensitization | : Skin (guinea-pig) | : Not a sensitizer ¹⁾ | |
| Acute Toxicity | Swallowed LD50 (rat) | : > 5000 mg/kg ¹⁾ | (practically non-toxic) |
| | Skin LD50 (rabbit) | : > 5000mg/ kg ¹⁾ | (practically non-toxic) |
| | Inhaled LC50 (rat) | : > 4.1mg/L/4hr ¹⁾ | (practically non-toxic) |

Chronic Toxicity : The results obtained from a Xerox sponsored, Chronic Toner Inhalation Study, demonstrated no lung change in rats for the lowest (1mg/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⁾

Carcinogenicity : Carbon Black is classified as "Group 2B(possibly carcinogenic to humans)" by IARC. But we obtained the results from a Chronic Toner Inhalation Study, that commercially available Xerox toner has no evidence of human carcinogens. All other ingredients are not classified as "Carcinogens^{ref.1)}".

Mutagenicity: Ames Assay: Negative

Reproduction and Development: Not classified as "Reproductive and Development chemicals^{ref.2)}".

1) This information is based on toxicity data for similar materials and ingredients.

12. ECOLOGICAL INFORMATION

| | | | |
|-------------------|-----------------------------|---------------------------|-------------------------|
| Biodegradability | : Not available. | | |
| Bioaccumulation | : Not available. | | |
| Acute Toxicity | 96hours LC 50 | : > 500mg/L ¹⁾ | (practically non-toxic) |
| | 48hourd EC50(daphnia magna) | : > 100mg/L ¹⁾ | (practically non-toxic) |
| Other Information | : None | | |

1) This information is based on toxicity data for similar materials and ingredients.

13.DISPOSAL CONSIDERATION

Dispose of in accordance with national and local regulations.

14.TRANSPORT INFORMATION

Transport in accordance with national and local regulations.

15.REGULATORY INFORMATION

Ensure this product in compliance with national requirements and ensure conformity to local regulations.

16.OTHER INFORMATION

The above mentioned data correspond to our present state of knowledge and experience, but no warranty is made. Users should consider these data only as a supplement to other information and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of the materials and safety and health of employees and customers.

References

- 1: IARC Monographs on the Evaluation Carcinogenic Risks to Humans (WHO.International Agency for Research on Cancer)
National Toxicology Program(NTP) Report on Carcinogens (NTP)
TLVs and BEIs (American Conference of Governmental Industrial Hygienists)
Council Directive 67/548/EEC on the approximation of the laws, regulations, and administratives provisions relating to the classification, packing and labelling of dangerous substances; Annex 1 (EU)
Journal of Occupational Health(Japan Society for Occupational Health)
- 2: Council Directive 67/548/EEC on the approximation of the laws, regulations, and administratives provisions relating to the classification, packing and labelling of dangerous substances; Annex 1 (EU)