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|--------------------------------------|---|
| Principle Routes of Exposure | Inhalation |
| Acute toxicity | |
| Eyes | No known effect |
| Skin | No known effect |
| Inhalation | No known effect |
| Ingestion | No known effect |
| Chronic effects | |
| Main symptoms | Overexposure may cause: mild respiratory irritation similar to nuisance dust. |
| Aggravated medical conditions | None under normal use conditions |
| Environmental hazard | The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects. |

3. Composition/Information on Ingredients

| Chemical Name | CAS-No | Weight % |
|-----------------------------|-----------|----------|
| Magnetite | 1317-61-9 | 15-20 |
| Carbon Black | 1333-86-4 | <5 |
| Quaternary ammonium salt | 3843-16-1 | <2 |
| Styrene/butadiene copolymer | 9003-55-8 | 75-80 |

4. First Aid Measures

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| General advice | For external use only. When symptoms persist or in all cases of doubt seek medical advice. Show this material safety data sheet to the doctor in attendance. |
| Eye contact | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes |
| Skin contact | Wash skin with soap and water |
| Inhalation | Move to fresh air |
| Ingestion | Rinse mouth with water and afterwards drink plenty of water or milk |
| Notes to physician | Treat symptomatically |
| Protection of first-aiders | No special protective equipment required |

5. Fire-Fighting Measures

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|---------------------------------------|---|
| Flammable properties | Not flammable. Will not readily ignite |
| Flash point | Not applicable |
| Suitable extinguishing media | Use water spray or fog; do not use straight streams, Foam |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire |

Specific hazards arising from the chemical
 Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

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|--------------------------------------|---|
| Hazardous combustion products | Hazardous decomposition products due to incomplete combustion Carbon oxides Nitrogen oxides (NOx) |
|--------------------------------------|---|

Explosion Data

Sensitivity to Mechanical Impact
Sensitivity to Static Discharge

Not impact sensitive
 Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

Note

See Section 9 for physical properties related to explosibility

Protective Equipment and Precautions for Firefighters

In the event of fire and/or explosion do not breathe fumes. Wear fire/flame resistant/retardant clothing. Use self-contained pressure-demand breathing apparatus if needed to prevent exposure to smoke or airborne toxins.

6. Accidental Release Measures

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| Personal Precautions | Avoid breathing dust |
| Environmental Precautions | No special environmental precautions required |
| Methods for containment | Prevent dust cloud |
| Methods for cleaning up | Prevent dust cloud. Sweep up or vacuum up spillage and collect in suitable container for disposal. Use non-sparking tools and equipment. Avoid ignition sources. |
| Other Information | The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects. |

7. Handling and Storage

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| Advice on safe handling | Handling practices and processes should be consistent with the safe handling of combustible dust. Prevent dust cloud In case of insufficient ventilation, wear suitable respiratory equipment Keep away from open flames, hot surfaces and sources of ignition Take precautionary measures against static discharges |
| Technical measures/Storage conditions | Keep container tightly closed in a dry and well-ventilated place Store at room temperature |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice |
| Industrial User | Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday Provide regular cleaning of equipment, work area and clothing. |

8. Exposure Controls/Personal Protection

Exposure guidelines

Product information

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|-----------------------------|--|
| ACGIH TLV TWA | 10 mg/m ³ (inhalable particles) |
| ACGIH TLV TWA | 3 mg/m ³ (respirable dust) |
| OSHA PEL TWA | 15 mg/m ³ (total dust) |
| OSHA PEL TWA | 5 mg/m ³ (respirable dust) |
| Xerox Exposure Limit | 2.5 mg/m ³ (total dust) |
| Xerox Exposure Limit | 0.4 mg/m ³ (respirable dust) |

Other Information

The results obtained from a Xerox sponsored Chronic Toner Inhalation Study demonstrated no lung changes in rats for the lowest (1 mg/m³) exposure level (the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of 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 an EPA testing protocol.

Occupational Exposure Controls

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|-----------------------------|--|
| Engineering measures | Engineering controls should be used to maintain airborne dust levels below established exposure limits |
| Industrial use | Equipment and processes should be designed and operated in accordance with directives for safe handling of combustible dust. Provide appropriate exhaust ventilation at places where dust is formed. Ensure all equipment is electrically grounded before beginning transfer operations. |

Personal Protective Equipment

Industrial use / Bulk containers

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|---------------------------------|--|
| Respiratory protection | No special protective equipment required |
| Eye/Face protection | No special protective equipment required |
| Skin and body protection | No special protective equipment required |
| Hand protection | No special protective equipment required |

Industrial use If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn Wear protective eyewear (goggles)

9. Physical and Chemical Properties

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|------------------------|---------------------------|---------------------------------|----------------|
| Appearance | Powder | Odor | Faint |
| Odor threshold | Not applicable | Physical state | Solid |
| pH | Not applicable | Color | Black |
| Flash point | Not applicable | Boiling point/range | Not applicable |
| Softening point | 49 - 60 °C / 120 - 140 °F | Autoignition temperature | Not applicable |

Flammability Limits in Air Not applicable

Explosive properties (Method: ASTM E 1226 Standard Test Method for Explosibility of Dust Clouds)

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|--|-----------------------------------|
| Maximum rate of explosion pressure rise (KSt) | 185 - 278 m ³ bars/sec |
| Maximum explosion pressure (Pmax) | 7.9 - 9.0 bar |
| Minimum ignition energy | <3 millijoules |

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|------------------------------|----------------|
| Vapor pressure | Not applicable |
| Vapor density | Not applicable |
| Water solubility | Negligible |
| Viscosity | Not applicable |
| Partition coefficient | Not applicable |
| Evaporation rate | Not applicable |

Melting point/range Not determined
Freezing point Not applicable
Decomposition temperature Not determined
Specific gravity ~ 1

10. Stability and Reactivity

Reactivity No dangerous reaction known under conditions of normal use
Stability Stable under normal conditions
Incompatible products None
Conditions to Avoid Heat, flames and sparks
 Take precautionary measures against static discharges
 Prevent dust cloud
Hazardous Decomposition Products None under normal use
Hazardous polymerization Hazardous polymerization does not occur
Hazardous reactions None under normal processing

11. Toxicological Information

The toxicity data noted below is based on the test results of similar reprographic materials.

Acute toxicity

Product information

Irritation No skin irritation, No eye irritation
LD50 Oral > 5 g/kg (rat)
LD50 Dermal > 5 g/kg (rabbit)
LC50 Inhalation: > 5 mg/L (rat, 4 hr)

Eyes No known effect
Skin No known effect
Inhalation No known effect
Ingestion No known effect

Chronic toxicity

Product information

Chronic effects No known effects under normal use conditions
Main symptoms **Overexposure may cause:** mild respiratory irritation similar to nuisance dust.
Aggravated medical conditions None under normal use conditions
Carcinogenicity See "Other Information" in this section.

| Chemical Name | IARC | NTP |
|---------------|------|-----|
| Carbon Black | 2B | |

Other information

The IARC (International Agency for Research on Cancer) has listed carbon black as "possibly carcinogenic to humans". The classification is based on studies evaluating pure, "free" carbon black. In contrast, toner is a formulation composed of specially prepared polymer and a small amount of carbon black (or other pigment). In the process of making toner, the small amount of carbon black becomes encapsulated within a matrix. Xerox has performed extensive testing of toner, including a chronic bioassay (test for potential carcinogenicity). Exposure to toner did not produce evidence of cancer in exposed animals. The results were submitted to regulatory agencies and published extensively.

Other toxic effects

Product information

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|-------------------------------|--|
| Sensitization | No sensitization responses were observed |
| Mutagenic effects | Not mutagenic in AMES Test |
| Developmental toxicity | None known. |
| Teratogenicity | None known |
| Target organ effects | None known |
| Other adverse effects | None known |
| Aspiration Hazard | Not applicable |

12. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects.

Persistence and degradability No information available.

13. Disposal Considerations

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport Information

Note This material is not subject to regulation as a hazardous material for shipping.

15. Regulatory Information

International Inventories

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|----------------------|----------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Water Act

This product is not regulated as a pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product is not regulated as a hazardous air pollutant (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA

TSCA 12(b) does not apply to this product.

U.S. State Regulations

California Proposition 65

Carbon black is regulated under California Proposition 65 only if in the form of "airborne, unbound particles of respirable size". Toner products do not contain carbon black in the form of "airborne, unbound particles of respirable size". Therefore, the requirements of Proposition 65 do not apply to this product.

| Chemical Name | CAS-No | California Prop. 65 |
|---------------|-----------|---------------------|
| Carbon Black | 1333-86-4 | Carcinogen |

U.S. State Right-to-Know Regulations

Although this product contains substances included in some U.S. State Right-to-Know regulations, the particles are bound in a unique matrix and, therefore, the product does not pose any specific hazard.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. Other Information

Issuing Date 1986-09-22
Revision Date 2015-04-21
Revision Note Updated for OSHA HazCom 2012 and WHMIS 2015

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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