

Material Safety Data Sheet

SECTION 1 Chemical Products and Company Identification

Product Name : 02071087
Product Type : Toner
Manufacturer : NA Trading and Technology (U.S.A.)
9216 Grand Ave. S, Bloomington, MN 55420
Telephone : 800-231-8434
Emergency : 800-231-8434
Data Prepare : 10/17/2014
Date Revised : -

SECTION 2 Composition / Information on Ingredients

	CAS No.	%	OSHA	PEL	ACGIH	TLV	NIOSH
Hazardous Components							
Carbon black	1333-86-4	< 12.0	3.5mg/m ³		3.5mg/m ³		3.5mg/m ³
Titanium dioxide	13463-67-7	< 1.0	15.0mg/m ³		10.0mg/m ³		Not listed
Non-Hazardous Components							
Polyester	Trade secret	> 81.0	Not listed		Not listed		Not listed
Paraffin wax*	8002-74-2	< 3.0	Not listed		Not listed		Not listed
Amorphous silica	Trade secret	< 2.0	20mppcf		10.0 mg/m ³		Not listed
Polypropylene	9010-79-1	< 1.0	Not listed		Not listed		None

*: See "SECTION 16".

SECTION 3 Hazard Identification

Physical Hazards

This material has no usual fire or explosion hazards but will burn if involved in a fire.

Human Health Effects

Carbon black and Titanium dioxide are reclassified as a group 2B by IARC, but inhalation test using a typical toner showed no association between toner exposure and animal tumors.

Inhalation	Minimum irritation to the respiratory track may occur as with exposure to any non-toxic dust.
Skin	Powder may cause drying of the skin with repeated or prolonged contact.
Ingestion	No adverse effects expected.
Eyes	High dust concentrations may cause irritation.

SECTION 4 First Aid Measure

Inhalation	Remove to fresh air. If effects occur, consult medical personnel.
Skin	Wash exposed skin with water and soap.
Ingestion	Symptomatic treatment is recommended.
Eyes	Flush eyes with water to remove dust.

SECTION 5 Fire Fighting Measure

Flammable Properties

Flash Point: N.A.(Not Applicable)

Lower Explosive Limit: N.A.

Upper Explosive Limit: N.A.

Extinguishing Media

Water fog, foam, CO₂, dry chemical.

Protective Equipment

Wear self-contained breathing apparatus and full protective gear.

SECTION 6	Accidental Release Measures
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Personal Precautions

Wear appropriate respiratory protection.

Spill Cleanup Measures

Sweep up or vacuum spilled toner and carefully transfer into a sealed container. Sweep slowly to minimize generation of dust during clean up. If a vacuum is used, the motor should be rated as dust tight. Residue can be removed with soap and water.

Environmental Precautions

Waste material may be dumped or incinerated under conditions, which meet all nation and local laws and regulations.

SECTION 7	Handling and Storage
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Handling and Storage

Avoid creating dust. Clean up all spills promptly. Provide general ventilation. Prevent exposure to high temperature, flames and spark-producing equipment. Store in a cool place.

SECTION 8	Exposure Controls and Personal Protection
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Control parameters

OSHA PEL:TWA

5.0mg/m³ (Inert of Nuisance Dust : Respirable fraction)
15.0mg/m³ (Inert of Nuisance Dust : Total dust)

ACGIH TLV:TWA(2008)

3.0mg/m³ (Particulates Not Otherwise Classified : Respirable Particle Mass)
10.0mg/m³ (Particulates Not Otherwise Classified : Inhalable Particle Mass)

Respiratory Protection

None required under normal use, however, in dusty atmospheres, use an approved dust respirator.

Skin Protection : None required under normal use.

Eye Protection : None required under normal use.

Hand Protection : None required under normal use.

Protective Clothing : None required under normal use.

SECTION 9	Physical and Chemical Properties
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Appearance	: Fine black powder	Odor	: Odorless
PH	: N.A.	Boiling Point	: N.A.
Melting Point	: No data	Flash Point	: N.A.
Evaporation	: N.A.	Vapor Pressure	: N.A.
Vapor Density	: N.A.	Solubility in Water	: Negligible
Specific Gravity	: ca. 1.20 (H ₂ O=1)	Freezing Point	: N.A.

SECTION 10	Stability and Reactivity
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Chemical Stability	: Stable
Condition to avoid	: None
Materials to avoid	: Oxidizing materials
Hazardous decomposition	: CO, CO ₂ and NO _x
Hazardous polymerization	: None

SECTION 11	Toxicological Information
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Routes of Exposure	:Inhalation, Ingestion, Eyes and Skin contact
Acute Effects	:See "SECTION 3".
Chronic Effects	: In a study in rats (H.Muhle) by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the concentration(16mg/m ³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m ³) exposure group. But no pulmonary changes was reported in the lowest (1mg/m ³) exposure group, the most relevant level to potential human exposures.
Ingestion	: No data available
Mutagenic Effects (Ames test)	: Negative (Estimated from the data of constituent components.)
Carcinogenic Effects	: In 1996, the IARC reevaluated carbon black as a GROUP 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the developer of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an 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.

SECTION 12	Ecological Information
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See "SECTION 15".

SECTION 13	Disposal Consideration
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Waste material may be dumped or incinerated under conditions which meet all national and local laws and regulations.

SECTION 14	Transport Information
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Transport Information	: This is not a hazardous product.
UN No.	: None allocated.

SECTION 15	Regulatory Information
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TSCA	All chemical substances in this product comply with all applicable rules or order under TSCA.
EU	None

SECTION 16	Other Information
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*: Paraffine is not hazardous except for its flammable properties, but "Paraffine wax fume" is one of hazardous chemicals. Its ACGIH TLVs(TWA) and NIOSH RELs(TWA) is the same value(2mg/m³).

NFPA Rating : Health = 1 Flammability = 1 Reactivity = 0

Reference :

- 1) 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, pp280-299.
- 2) IARC(1996) IARC 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.