(Positive to Positive)

Prepared Date: 1-Apr-1996
Revised Date: 13-Sep-2002

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: MT TONER P-P
used for: RP507, RP600Z, RP603Z, RP605Z, RP606Z, RP607Z

Supplier Identification:
Minolta Corporation
101 Williams Drive, Ramsey, New Jersey 07446, U.S.A.
Telephone: 201-825-4000

Emergency Telephone No.
Contact your regional poison control center.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance [ ] Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Styrene acrylate copolymer	+++	80-90
Carbon black	1333-86-4	5-10
Organic pigment	+++	1- 5
Polyolefin wax	+++	1- 5
Amorphous silica	7631-86-9	< 1

+++: Supplier's confidential information

Hazardous Ingredients:
Chemical Name: Carbon black (5-10%)

CAS No.: 1333-86-4	EEC-No.: 215-609-9
OSHA Z-Tables(USA): 3.5mg/m3	ACGIH-TLV(USA): 3.5mg/m3
NTP(USA): Not listed	IARC Monographs: Group 2B
Symbol(EC): Not listed	R-Phrase(EC): Not listed
DFG-MAK(GER): III 3B	Worksafe-TWA(Austl): 3mg/m3

3. HAZARDS IDENTIFICATION

Classification : Not classified as dangerous. (1999/45/EC)

Most Important Hazards and Effects of the Products

For Human Health: This toner is not classified as a human carcinogen. No symptoms expected with intended use.

For the Environment: No data are available on the adverse effects of this product on the environment.

For Others: None

Specific Hazards: Dust explosion(like most finely divided organic powders)

4. FIRST-AID MEASURES

Symptoms of Overexposure: No symptoms expected with intended use.

Routes of Entry: Eye contact, inhalation, ingestion

Information

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air and obtain medical advice.

Skin Contact: Flush with gently flowing water (preferably lukewarm) and soap for 15 minutes or until particle is removed. If irritation does occur, obtain medical advice.

Eye Contact: Do not allow victim to rub eye(s). Flush with gently flowing water (preferably lukewarm) for 15 minutes or until particle is removed. Have victim look right and left, and, then up and down. If irritation does occur, obtain medical attention. DO NOT attempt to manually remove anything stuck to the eye(s).

Ingestion: If irritation or discomfort occurs, obtain medical attention immediately.

Note to Physician: None

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: CO2, water spray, foam and dry chemical

Extinguishing Media to Avoid: Full water jet

Special Firefighting Procedures: None

Fire and Explosion Hazards: If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

Protection of Firefighters: Use self-contained breathing apparatus(SCBA).

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. It, like most finely divided organic powders, may create a dust explosion.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions: None

Safe Handling Advice: 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 reach of children.

Incompatible Products: None

Packing Materials: Bottles or Cartridge designated by Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters (As total dust)

OSHA-PEL (USA): 15mg/m3 ACGIH-TLV (USA): 10mg/m3

DFG-MAK (GER): 4mg/m3 Worksafe-TWA (Austl.): 10mg/m3

Personal Protective Equipment

None required when used as intended in Minolta equipment.
For use other than normal customer-operating procedures (such as in bulk toner processing facilities), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid Form: Powder Color: Black

Odor:	Faint odor
Particle Size (μm):	10 - 20
PH/Boiling Point (°C):	Not applicable
Melting Point (°C):	No data available
Softening Point (°C):	110 - 120
Flash Point (°C):	Not applicable
Ignition Temperature (°C):	450 *
Explosion Properties:	No data available
Vapor Pressure:	Not applicable
Density (g/cm³):	1.15 (bulk density: 0.4 *)
Solubility in water:	Negligible
Oxidizing Properties:	No data available

Partition Coefficient, n-Octanol/Water: Not applicable

(*= Based on data for other Minolta Products with similar ingredients)

0. STABILITY AND REACTIVITY

Stability: Stable [X] Unstable [ ]
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

1. TOXICOLOGICAL INFORMATION

Health Effects from Exposure: No symptoms expected with intended use.
Toxicological Data
Acute Toxicity:
Inhalation, LC50(mg/l): >0.41 (Rat,4hour)
(This was the highest attainable concentration.)
Ingestion(oral), LD50(mg/kg): >5000 (Rat)
Dermal, LD50(mg/kg): >2000 (Rat)
Eye irritation: Mild irritant (Rabbit)
Skin irritation: Non irritant (Rabbit)
Skin sensitizer: Non sensitizer (Guinea pig) *
Mutagenicity: Negative (AMES test)
(*= Based on data for other Minolta Products with similar ingredients)
Local Effects: see Chronic Toxicity or Long term Toxicity
Chronic Toxicity or Long Term Toxicity:
Prolonged inhalation of excessive dust may cause lung damage. It is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, does not result in inhalation of excessive dust. In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of rats in the high 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 change was reported in the lowest ($1mg/m^3$) exposure group, the most relevant level to potential human exposures.
Carcinogenicity
IARC Monographs/NTP(USA)/OSHA Regulated(USA): Not listed
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 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 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.

12. ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment.

13. DISPOSAL CONSIDERATION

Appropriate Methods of Disposal

Preparation (community provisions):

Waste may be disposed 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.

Precautions:

Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.

14. TRANSPORT INFORMATION

Special Precautions: None

Information on Code and Classifications According to International Regulations

UN Classification: None

15. REGULATORY INFORMATION

US Information

Information on the label: Not required

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 Categories/313 Reportable Ingredients: None

California Proposition 65:

This product contains no chemical substances subject to California Proposition 65.

EU Information

Information on the label (1999/45/EC and 67/548/EEC):

Symbol & Indication: Not required

R-Phrase: Not required

S-Phrase: Not required

76/769/EEC:

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

·Article14 (2.1) of Directive 1999/45/EC is not applicable to this product.

6. OTHER INFORMATION

NFPA Hazard Rating: The National Fire Protection Agency(USA):
Health: 1 Flammability: 1 Reactivity: 0

HMIS Rating: The National Paint and Coating Association(USA):
Health: 1 Flammability: 1 Reactivity: 0

Recommended Uses:

Toner for Electrophotographic Equipment

Restrictions:

Information on this data sheet represents our current data and the best opinion as to the proper use in handling of this product under normal conditions specified in our User's Manual. However, neither Minolta Co.,Ltd. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we do not guarantee that these are the only hazards which exist.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

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

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