

MATERIAL SAFETY DATA SHEET

MSDS NO. : PFC-002  
 DATE: 06/01/1992  
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MINOLTA CORPORATION  
 101 WILLIAMS DRIVE  
 RANSEY, NJ 07446

EMERGENCY TEL. NO. CONTACT YOUR REGIONAL POISON  
 CONTROL CENTER  
 INFORMATION TEL. NO. 201-825-4000

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT : MT TONER II

| EQUIPMENT NO. | EP50,   | EP270,  | EP370,  | EP370Z, | EP410Z, | EP415Z, |
|---------------|---------|---------|---------|---------|---------|---------|
|               | EP425Z, | EP450,  | EP490Z, | EP2100, | EP2120, | EP2121, |
|               | EP2151, | EP3120, | EP3150, | EP3170, | EP4210, | EP4230, |
|               | EP4233, | EP4300, | EP4301, | EP4320, | EP4321, | EP5400, |
|               | EP5401, | EP5320, | EP5420  |         |         |         |

SECTION 2 - PRODUCT AND COMPONENT HAZARD DATA

| INGREDIENT                 | CAS NO.   | OSHA PEL-TWA         | ACGIH TLV-TWA        |        |
|----------------------------|-----------|----------------------|----------------------|--------|
| Styrene acrylate copolymer |           | N.AP.                | H.AP.                | >80 %  |
| Copper oxide               | 1317-38-0 | N.AP.                | H.AP.                | 5-10 % |
| Organic pigment            |           | N.AP.                | N.AP.                | 1- 5 % |
| Carbon black               | 1333-86-4 | 3.5mg/m <sup>3</sup> | 3.5mg/m <sup>3</sup> | 1- 5 % |
| Polypropylene              | 9003-07-0 | N.AP.                | H.AP.                | 1- 3 % |

As total nuisance dust  
 Toner, as a mixture, is considered a nuisance dust.

HAZIS RATING : HEALTH : 0 FLAMMABILITY : 1 REACTIVITY : 1

SECTION 3 - EMERGENCY AND FIRST AID

INHALATION : Wash nostrils, rinse mouth.  
 INGESTION : Dilute stomach contents with several glasses of water.  
 EYES : Flush with water for 15 minutes.  
 SKIN : Wash with soap and water.

PRIMARY ROUTE OF ENTRY : Inhalation

SYMPTOMS OF OVEREXPOSURE

ACUTE : Minimal respiratory tract irritation may occur as with exposure to large amounts  
 of any nontoxic dust. May cause cough and raise phlegm.  
 CHRONIC : None.

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SECTION 4 - TOXICOLOGY AND HEALTH INFORMATION

HEALTH HAZARDS : Toner presents a low hazard for usual occupational settings. Based on available data, human exposure to toner has been shown to cause minimal respiratory tract irritation as may occur with large amounts of any non-toxic dusts. The results of one animal study where rats inhaled toner that was ten times more respirable than commercially available toner were observed to have no lung changes at low exposures (the most relevant level to potential human exposures). At higher levels a slight degree of lung fibrosis was observed due to excessive amounts of dust retained in the lungs for a prolonged interval.

ORAL LD50 : >5.0 g/kg (Rats)  
 DERMAL LD50 : >2.0 g/kg (Rats)  
 INHALATION LC50 : >1.8 g/m<sup>3</sup> (Rats) for 4-hours

(This was the highest attainable concentration. There were no deaths during the study.)

EYE IRRITANT : Not an irritant (Rabbits)  
 SKIN IRRITANT : Not an irritant. (Rabbits)  
 SKIN SENSITIZER : Almost none (Guinea-pigs)  
 MUTAGENICITY : No mutagenicity detected in Ames Assay.  
 CARCINOGENICITY : NTP : Not listed. IARC MONOGRAPHS : Not listed. OSHA REGULATED : Not listed.

SECTION 5 - PHYSICAL DATA

APPEARANCE AND ODOR : Black powder, faint odor  
 BOILING POINT (°C) : N.A.P.  
 VAPOR PRESSURE (mmHg) : N.A.P.  
 VAPOR DENSITY (AIR=1) : N.A.P.  
 SOLUBILITY IN WATER : Negligible  
 SPECIFIC GRAVITY (H2O=1) : 1.2  
 EVAPORATION RATE : N.A.P.  
 MELTING POINT (°C) : N.A.V.  
 pH : N.A.P.

SECTION 6 - FIRE AND EXPLOSION DATA

FLASH POINT & METHOD : N.A.P.  
 FLAMMABLE LIMITS IN AIR : LEL : N.A.P. % UEL : N.A.P. %  
 EXTINGUISHING MEDIA : Water, foam, dry chemical  
 SPECIAL FIREFIGHTING PROCEDURES : Avoid inhalation of smoke.

FIRE AND EXPLOSION HAZARDS : If dispersed in air, Toner, like most finely divided organic powders, may form an explosive mixture.

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SECTION 7 - REACTIVITY DATA

STABILITY : UNSTABLE :  
CONDITIONS TO AVOID : None.

STABLE : X

INCOMPATIBILITIES : None.

HAZARDOUS DECOMPOSITION BYPRODUCTS : Products of combustion are toxic. Avoid breathing of smoke.

HAZARDOUS POLYMERIZATION : MAY OCCUR : WILL NOT OCCUR : X  
CONDITIONS TO AVOID : None.

SECTION 8 - PERSONAL PROTECTION AND CONTROLS

VENTILATION : LOCAL EXHAUST : N.A.P.  
MECHANICAL (GENERAL) : N.A.P.

RESPIRATORY PROTECTION : None required when used as intended in Minolta equipment.  
PROTECTIVE GLOVES : None required when used as intended in Minolta equipment.  
EYE PROTECTION : None required when used as intended in Minolta equipment.  
WORK PRACTICES : None.

SECTION 9 - SAFE HANDLING AND USE PRECAUTIONS

HANDLING AND STORAGE : None.

SECTION 10 - SPILL, LEAK AND DISPOSAL PROCEDURES

FOR SPILLS AND LEAKAGE : If spilled, sweep up or vacuum.  
WASTE DISPOSAL METHOD : Waste may be disposed or incinerated under conditions which meet all federal, state and local environmental regulations.

SECTION 11 - TRANSPORTATION

D.O.T. SHIPPING NAME : Not regulated. HAZARD CLASSIFICATION : N.A.P. I.D. NUMBER : N.A.P.

N.A.P. : Not applicable  
N.A.V. : Not available