

Material Safety Data

CC0267

KONICA BUSINESS MACHINES U.S.A., INC. (Importer)
500 Day Hill Rd. Windsor, CT 06095
For Safety & Environmental Information: (203) 683-2222 ext. 2093

EMERGENCY: 1-800-424-9300

Revised: August 24, 1987



Konica Tough!

SECTION 1. PRODUCT IDENTIFICATION

Trade Name/Synonyms	Product Codes	Sizes
ROYAL PHOTOCONDUCTOR DRUM 130/130R	PC/UA 943-925	120mm x 340mm
ROYAL PHOTOCONDUCTOR DRUM 115/122	PC/UA 943-925	120mm x 340mm
ROYAL PHOTOCONDUCTOR DRUM 3302MR	PC/UA 943-925	120mm x 340mm
ROYAL PHOTOCONDUCTOR DRUM 1602MR	PC/UA 943-212	100mm x 330mm
2502MR/1803ZMR/2803ZMR/2203/2290/3290		

SECTION 2. MANUFACTURER

Konica Corporation
2970 Ishikawa-cho,
Hachioji-shi, Tokyo 192,
Japan

SECTION 3. INGREDIENTS

Name of Predominant Components	CAS No.	Contents (w%)	PEL	TLV
Substrate (Cylinder)		>95		
Aluminum	-----	(100)	-----	N.A. (Solid)
Coating		<5		
Selenium	7782-49-2	(85-90)	0.2mg/m3	0.2mg/m3
Tellurium	13494-80-9	(10-15)	0.1mg/m3	0.1mg/m3

SECTION 4. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance and Odor: Glassy black film is coated on metallic cylinder and is odorless.

Boiling Point: >680°C (Coating) Melting Point: 240°C (coating)
Softening Range: N.A. Specific Gravity (H₂O=1): 4.5 (coating)
Vapor Pressure: <10⁻⁵mmHg (2.7 as a whole)
Evaporation Rate (Butyl acetate=1): N.A.
Solubility in water: Insoluble
Vapor Density (Air =1): N.A. PH: N.A.

SECTION 5. FIRE AND EXPLOSION DATA

Flash Point (Method used): N.A.
Extinguishing Media: Water, foam, carbon dioxide or dry chemical. Do not use soda-acid or any other acid type extinguishers.
Special Fire Fighting Procedures: When in a machine, treat as electrical fire and do not use water or foam.
Unusual Fire and Explosion Hazard: Exposure to high temperature can result in melting and pyrolysis. Fumes may cause irritation of the respiratory tract. Avoid breathing fumes.
Flammable Limits: N.A.

SECTION 6. REACTIVITY DATA

Stability: Stable (except above 200°C).
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Oxides of selenium and tellurium. These products of combustion are toxic.
Incompatibility (materials to avoid): Strong acids.

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SECTION 7. TOXICOLOGY AND HEALTH INFORMATION

The product has been extensively tested and evaluated by Konica Corporation. When used as intended by the consumer in Konica/Royal copiers it does not represent any known health or safety hazard. Service technicians refining drums should refer to Konica (Royal) Selenium Drum Manual for special precautions and safety information.

Acute Oral (mouse): LD50 > 5,000mg/kg.

Acute Inhalation (rat): LC50 > 214mg/m³ for 4 hours. (This value is highest attainable with aerosol generation apparatus containing the coating material).

Eye Irritation (rabbit): Non-irritating.

Skin Irritation (rabbit): Non-irritating.

Carcinogenicity: Not listed by NTP, IARC or OSHA.

Mutagenicity (Ames): Non-mutagenic.

Primary Route of Entry: None when used as intended in Konica/Royal copiers.

Symptoms of Overexposure: None when used as intended in Konica/Royal copiers.

Medical Conditions Generally Aggravated by Exposure: None currently determined.

SECTION 8. EMERGENCY AND FIRST AID

Ingestion: N.A.

Inhalation: N.A.

Eye: Flush with water.

Skin: Wash with soap and water.

Additional Information: See SECTION 5 and 9.

SECTION 9. SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as intended in KONICA/ROYAL COPIERS.

Eye Protection: None required when used as intended in KONICA/ROYAL COPIERS.

Protection Gloves: None required by operator when used as intended in KONICA/ROYAL COPIERS. Service technicians handling and/or refining the drums should wear nonpervious, disposable gloves.

Other Protective Equipment: None required when used as intended in KONICA/ROYAL COPIERS.

Other: None required when used as intended in KONICA/ROYAL COPIERS.

SECTION 10. SPECIAL PRECAUTIONS

Handling and Storage: Service technicians handling or refining drums should refer to Konica (Royal) Selenium Drum Manual for specific handling and storage procedures.

Conditions to Avoid: Avoid exposure to high temperatures.

SECTION 11. SPILL, LEAK, AND DISPOSAL PROCEDURES

For Spills or Leakage: Particles of coating detached through physical damage must be collected and disposed of as a chemical waste.

Waste Disposal Method: Dispose according to all local, state and federal regulations. If additional information is needed, contact your Konica representative.

SECTION 12. TRANSPORTATION INFORMATION

DOT: Not regulated.

Prepared by the Security and
Safety Department
Konica Business Machines
500 Day Hill Road
Windsor, CT 06095

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EMERGENCY: 1-800-424-9300



Revised: August 24, 1987

SECTION 1. PRODUCT IDENTIFICATION

<u>Trade Name/Synonyms</u>	<u>Product Codes</u>	<u>Konica Tough! Sizes</u>
ROYAL DEVELOPER 145/145R(135 and 138)	PC/UA 943-831	2.5kg
ROYAL DEVELOPER 1503ZMR	PC/UA 945-255	700g
ROYAL DEVELOPER 1602MR/2502MR/1803ZMR/2803ZMR	PC/UA 943-207	1.1kg
ROYAL DEVELOPER 3302MR (135)	PC/UA 943-713	900g
ROYAL DEVELOPER 3302MR (138)	PC/UA 943-715	900g
ROYAL DEVELOPER BLUE 1803ZMR/2803ZMR	PC/UA 945-526	1.1kg
ROYAL DEVELOPER GREEN 1803ZMR/2803ZMR	PC/UA 945-526	1.1kg
ROYAL DEVELOPER RED 1803ZMR/2803ZMR	PC/UA 945-516	1.1kg
ROYAL DEVELOPER 1602/2502/1803/2203/2803	PC/UA 945-561	1.1kg

SECTION 2. MANUFACTURER

Konica Corporation
 2970 Ishikawa-cho,
 Hachioji-shi, Tokyo 192,
 Japan

SECTION 3. INGREDIENTS

<u>Name of Predominant Components</u>	<u>CAS No.</u>	<u>Contents (w%)</u>	<u>PEL</u>	<u>TLV</u>
CARRIER	-----	94-98	N.A.	N.A.
Iron	7439-89-6	-----	-----	-----
Iron Oxide	1317-61-9	-----	-----	-----
Resin	-----	-----	-----	-----
TONER	-----	2-6	Mixture*	

* See MSDS of appropriate Konica/Royal Toner.

SECTION 4. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance and Odor: Grayish, dark blue, dark green, dark red and granular. Odorless.

Boiling Point: N.A. **Melting Point:** N.A.
Softening Range: N.A. **Specific Gravity (H₂O=1):** 7.5
Vapor Pressure: N.A. **Vapor Density (Air=1):** N.A.
Evaporation Rate (Butyl acetate=1): N.A.
Solubility in water: Negligible. **PH:** N.A.

SECTION 5. FIRE AND EXPLOSION DATA

Flash Point (Method used): N.A.
Extinguishing Media: Water, foam, carbon dioxide or dry chemical.
Special Fire Fighting Procedures: When in a machine, treat as electrical fire and do not use water or foam.
Unusual Fire and Explosion Hazard: Developer is not a combustible powder.
Flammable Limits: N.A.

SECTION 6. REACTIVITY DATA

Stability: Stable (except above 200°C).
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Combustion will produce carbon dioxide and carbon monoxide. Avoid breathing smoke.
Incompatibility (materials to avoid): None.

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SECTION 7. TOXICOLOGY AND HEALTH INFORMATION

The product has been extensively tested and evaluated by Konica Corporation. When used as intended by the consumer in Konica/Royal copiers it does not represent any known health or safety hazard.

Acute Oral (mouse): LD50 > 5,000mg/kg.

Acute Inhalation (rat): Refer to MSDS of appropriate Konica/Royal Toner.

Eye Irritation (rabbit): Non-irritating.

Skin Irritation (rabbit): Non-irritating.

Carcinogenicity: Not listed by NTP, IARC or OSHA.

Mutagenicity (Ames): Non-mutagenic.

Primary Route of Entry: N.A.

Symptoms of Overexposure: N.A.

Medical Conditions Generally Aggravated by Exposure: None currently determined.

SECTION 8. EMERGENCY AND FIRST AID

Ingestion: Dilute stomach contents with several glasses of water.

Inhalation: N.A.

Eye: Flush with water for 15 minutes. Consult a physician.

Skin: Wash with soap and water.

Additional Information: See SECTION 5 and 9.

SECTION 9. SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as intended in KONICA/ROYAL COPIERS.

Eye Protection: None required when used as intended in KONICA/ROYAL COPIERS.

Protection Gloves: None required by operator when used as intended in KONICA/ROYAL COPIERS.

Other Protective Equipment: None required when used as intended in KONICA/ROYAL COPIERS.

Other: For use other than in normal operating procedures, goggles, and respirators may be required.

SECTION 10. SPECIAL PRECAUTIONS

Handling and Storage: Keep from contact with oxidizing materials. Keep out of reach of children.

SECTION 11. SPILL, LEAK, AND DISPOSAL PROCEDURES

For Spills or Leakage: If spilled, sweep up or vacuum.

Waste Disposal Method: No special disposal procedures required. Insure conformity with federal, state and local regulations.

SECTION 12. TRANSPORTATION INFORMATION

DOT: Proper shipping name: Not regulated.

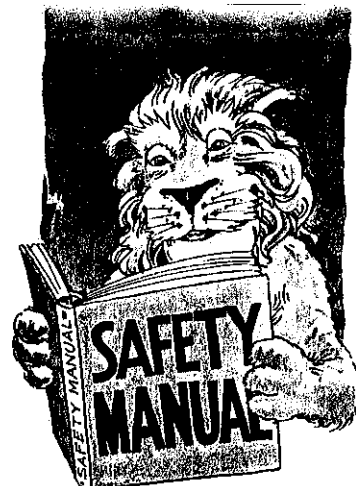
Hazard Classification: N.A.

ID Number: N.A.

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<u>Trade Name/Synonyms</u>	<u>Product Codes</u>	<u>Sizes</u>
ROYAL TONER 145/145R	PC/UA 943-809	300g
ROYAL TONER 1503ZMR	PC/UA 945-254	140g
ROYAL TONER 1602MR/2502MR/1803ZMR/2803/ZMR	PC/UA 943-206	200g
ROYAL TONER 2203ZMR	PC/UA 945-560	200g
ROYAL TONER 3302MR	PC/UA 943-712	300g
ROYAL TONER 4003ZMR	PC/UA 945-451	225g
ROYAL TONER 5003ZMR/5503ZMR	PC/UA 945-351	275g

SECTION 2. MANUFACTURER

Konica Corporation
2970 Ishikawa-cho,
Hachioji-shi, Tokyo 192,
Japan

SECTION 3. INGREDIENTS

<u>Name of Predominant Components</u>	<u>CAS No.</u>	<u>Contents (w%)</u>	<u>PEL</u>	<u>TLV</u>
Polyester resin	-----	-----	-----	-----
Carbon Black	1333-86-4	7 - 12	3.5mg/m ³	3.5mg/m ³
Wax	-----	-----	-----	-----
Higher fatty ethylene diamide	-----	-----	-----	-----
Silica (Amorphous)	7631-86-9	less than 1	80mg/m ³	10mg/m ³

* Silica

SECTION 4. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance and Odor: Fine black powder with slight mild odor.
Boiling Point: N.A. Melting Point: N.A.
Softening Range: Around 135°C. Specific Gravity (H₂O=1): 1.1
Vapor Pressure: N.A. Vapor Density (Air=1): N.A.
Evaporation Rate (Butyl acetate=1): N.A.
Solubility in water: Negligible. PH: N.A.

SECTION 5. FIRE AND EXPLOSION DATA

Flash Point (Method used): N.A.
Extinguishing Media: Water, foam, carbon dioxide or dry chemical.
Special Fire Fighting Procedures: When in a machine, treat as electrical fire and do not use water or foam.
Unusual Fire and Explosion Hazard: Toner is a combustible powder. Like many fine powders, toner dust when dispersed into the air at high concentrations can form explosive mixtures. When ignited these mixtures could cause dust explosions.
Flammable Limits: About 20g/m³ in air (Lower Limit).

SECTION 6. REACTIVITY DATA

Stability: Stable (except above 200°C).
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Combustion will produce carbon dioxide and carbon monoxide. Avoid breathing smoke.
Incompatibility (materials to avoid): Strong oxidizers.

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SECTION 7. TOXICOLOGY AND HEALTH INFORMATION

The product has been extensively tested and evaluated by Konica Corporation. When used as intended by the consumer in Konica/Royal copiers it does not represent any known health or safety hazard.

Acute Oral (mouse): LD50 > 5,000mg/kg.
Acute Inhalation (rat): LC50 > 1,083mg/m³ for 4 hrs. (This value is highest attainable with aerosol generation apparatus containing this material).
Eye Irritation (rabbit): Non-irritating.
Skin Irritation (rabbit): Non-irritating.
Carcinogenicity: Not listed by NTP, IARC or OSHA.
Mutagenicity (Ames): Non-mutagenic.
Primary Route of Entry: Inhalation.
Symptoms of Overexposure: Minimal respiratory tract irritation may occur as with any large amounts of non-toxic dust.
Medical Conditions Generally Aggravated by Exposure: None currently determined.

SECTION 8. EMERGENCY AND FIRST AID

Ingestion: Dilute stomach contents with several glasses of water.
Inhalation: Remove from exposure.
Eye: Flush with water for 15 minutes. Consult a physician.
Skin: Wash with soap and water.
Additional Information: See SECTION 5 and 9.

SECTION 9. SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as intended in KONICA/ROYAL COPIERS.
Eye Protection: None required when used as intended in KONICA/ROYAL COPIERS.
Protection Gloves: None required by operator when used as intended in KONICA/ROYAL COPIERS.
Other Protective Equipment: None required when used as intended in KONICA/ROYAL COPIERS.
Other: For use other than in normal operating procedures, goggles, and respirators may be required.

SECTION 10. SPECIAL PRECAUTIONS

Handling and Storage: Keep from contact with oxidizing materials.
Keep out of reach of children.

SECTION 11. SPILL, LEAK, AND DISPOSAL PROCEDURES

For Spills or Leakage: If spilled, minimize dusting situation and sweep up or vacuum.
Waste Disposal Method: No special disposal procedures required. Insure conformity with federal, state and local regulations.

SECTION 12. TRANSPORTATION INFORMATION

DOT: Proper shipping name: Not regulated.
Hazard Classification: N.A.
ID Number: N.A.

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