

Product Name: BLACK TONER

Page:1/6

MSDS No.: ICP-0687

Prepared Date: 25-Oct-2002 Revised Date: 22-Jan-2003

1. PRODUCT AND COMPANY IDENTIFICATION Product Name: BLACK TONER used for: NC-A7020 Supplier Identification: Minolta Co., Ltd. 3-13, 2-Chome, Azuchi-Machi, Chuo-Ku, Osaka 541-8556 JAPAN Telephone: +81-6-6271-2251 Facsimile: +81-6-6266-1010 Contact Point: Minolta Co., Ltd. (Quality & Ecology Division) 3-91, Daisennishimachi, Sakai, Osaka 590-8551 Japan Facsimile: +81-72-241-3427 2. COMPOSITION / INFORMATION ON INGREDIENTS Substance [ ] Preparation [ X ] Major Ingredients: [Generic Name] [CAS No.] [%] Styrene-acrylic resin 80-90 +++Wax 10 - 20+++Carbon black 1333-86-4 1-10 Amorphous silica 7631-86-9 1 - 10Titanium compound +++ 1-10 +++: Supplier's confidential information Hazardous Ingredients: Chemical Name: Carbon black ( 1-10%) CAS No.: 1333-86-4 EEC-No.: 215-609-9 OSHA Z-Tables(USA): 3.5mg/m3 ACGIH-TLV(USA): 3.5mg/m3 IARC Monographs: Group 2B NTP(USA): Not listed Symbol(EC): Not listed R-Phrase(EC): Not listed DFG-MAK(GER): III 3B Worksafe-TWA(Austl): 3mg/m3



Page:2/6

MSDS No.: ICP-0687

	MSDS No.: ICP-0687
Pr	roduct Name: BLACK TONER
	Prepared Date:25-Oct-2002
	Revised Date: 22-Jan-2003
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: Donotallowvictimtorubeye(s).Flushwithgentlyflowing 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
	Createl Firefichting Dreadures: Nore

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.



Page:3/6

Dr	oduct Name: BLACK TONER	
PI	Oduct Name. BLACK TONER	Prepared Date:25-Oct-2002 Revised Date: 22-Jan-2003
7.	Storage Technical Measures: N Storage Conditions: K S	ry not to disperse the particles. One eep container closed. tore in a cool and dry place. eep out of reach of children.
	Packing Materials: B	ottles or Cartridge designated by Minolta.
8.	For use other than norm	red with intended use. l dust) ACGIH-TLV(USA): 10mg/m3 Worksafe-TWA(Austl.): 10mg/m3 Ment as intended in Minolta equipment. al customer-operating procedures (such as in facilities), goggles and respirators may be
9.	<pre>PHYSICAL AND CHEMICAL PR Appearance Physical State: Solid Odor: Particle Size(µm): PH/Boiling Point(°C): Melting Point(°C): Softening Point(°C): Flash Point(°C): Ignition Temperature(°C): Explosion Properties: Vapor Pressure: Density(g/cm<sup>3</sup>): Solubility in water: Oxidizing Properties:</pre>	Form: Powder Color: Black Slight mild odor 5-10 Not applicable No data available 125 Not applicable No data available No data available Not applicable 1.2 Negligible No data available



Page:4/6

MSDS No.: ICP-0687

Product Name: BLACK TONER

Prepared Date: 25-Oct-2002 Revised Date: 22-Jan-2003

10. 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

#### 11. TOXICOLOGICAL INFORMATION

Health Effects from Exposure: No symptoms expected with intended use. Toxicological Data

Acute Toxicity:

(\*= 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.



Page:5/6

MSDS No.: ICP-0687

Product Name: BLACK TONER

Prepared Date: 25-Oct-2002 Revised Date: 22-Jan-2003

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

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.



MINOLTA	MATERIAL	SAFETY	DATA	SHEET	Page:6/6
					MSDS No.: ICP-0687
Product Name:	BLACK TONER				
				_	d Date:25-Oct-2002
				Revised	Date: 22-Jan-2003
EU Informati	on on on the lab	-1 (1000/	15/FC -	and $67/5/8$	/፹፹ሮነ・
	& Indication:				
-	se: Not requir	-			
S-Phra	se: Not requir	red			
76/769/EE	C:				
			_	uct comply	with all applicable
	or order under				
Article14	(2.1) of Direct	1Ve 1999/4	45/EC 18	not appli	cable to this product.
16. OTHER INFO	-			_	
NFPA Hazard	Rating: The N				
IIMIC Dating	Health: 1 The National		_		-
IMIS RALING.	Health: 1			_	
Recommended		1 1011110001		110000111	
Toner for	Electrophoto	graphic E	quipmer	nt	
Restrictions					
opinion a condition Co.,Ltd. for the a Allmater Although	as to the prope ns specified i nor any of its ccuracy or com ials maypresen	r use in i n our Use subsidia pleteness tunknown s are desc	handlin r`s Mar ries as of the hazards cribed b	ng of this nual. Howe sumes any informat: and should herein, we	rent data and the best product under normal ver, neither Minolta liability whatsoever ion contained herein. dbe used with caution. do not guarantee that
Literature F					
ANSI Z400.					
ISO 11014-	-1 n Directive 91				
COMMISSION	I DILECCIVE 91				
IARC(1996)	of Chemicals	to Humans	,Vol.6	5, Printing	the Carcinogenic Risk gProcess and Printing nds, Lyon, pp.149-261
J.C.MacKer Pulmonary	nzie, P.Morrow	, U.Mohr, oner upon	S.Take Chroni	enaka, and c Inhalati	, H.Ernst, R.Kilpper, R.Mermelstein(1991) on Exposure in Rats. 99.



Page:1/6

MSDS No.: ICP-0697

Product Name: YELLOW TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

 PRODUCT AND COMPANY IDENTIFICATION Product Name: YELLOW TONER used for: NC-A7020 Supplier Identification:

Minolta Co., Ltd. 3-13, 2-Chome, Azuchi-Machi, Chuo-Ku, Osaka 541-8556 JAPAN Telephone: +81-6-6271-2251 Facsimile: +81-6-6266-1010

Contact Point: Minolta Co., Ltd. (Quality & Ecology Division) 3-91, Daisennishimachi, Sakai, Osaka 590-8551 Japan Facsimile: +81-72-241-3427

2. COMPOSITION / INFORMATION ON INGREDIENTS Substance [ ] Preparation [ X ]

Major Ingredients:		
[Generic Name]	[CAS No.]	[%]
Styrene-acrylic resin	+++	80-90
Wax	+++	10-20
Organic pigment	+++	1-10
Amorphous silica	7631-86-9	1-10
Titanium compound	+++	1-10

+++: Supplier's confidential information

Hazardous Ingredients: None present



Page:2/6

MSDS No.: ICP-0697

Product Name: YELLOW TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

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 (likemost 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, removes our ceof 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: Donotallowvictimtorubeye(s).Flushwithgentlyflowing 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: Ifdispersedinair, likemostfinelydivided 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.



Page:3/6

MSDS No.: ICP-0697

Product Name: YELLOW TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

7. HANDLING AND STORAGE Handling Technical Measures: None 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): 4mq/m3Worksafe-TWA(Austl.): 10mg/m3 Personal Protective Equipment None required when used as intended in Minolta equipment. Other: 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: Yellow Odor: Slight mild odor 5-10 Particle Size(µm): Not applicable pH: Boiling Point: Not applicable Melting Point(°C): No data available Softening Point(°C): 125 Flash Point: Not applicable Ignition Temperature(°C): No data available Explosion Properties: No data available Vapor Pressure: Not applicable Density(g/cm<sup>3</sup>): 1.2 Solubility in water: Negligible Oxidizing Properties: No data available Partition Coefficient, n-Octanol/Water: Not applicable



MATERIAL SAFETY DATA SHEET Page:4/6

MSDS No.: ICP-0697
Product Name: YELLOW TONER
Prepared date:25-Oct-2002
Revised Date: 22-Jan-2003
10. 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
11. TOXICOLOGICAL INFORMATION
Health Effects from Exposure: No symptoms expected with intended use.
Toxicological Data
Acute Toxicity:
Inhalation, LC50(mg/l): >4.80 (Rat, 4hour) *
(This was the highest attainable concentration.)
Ingestion(oral), LD50(mg/kg): >2000 (Rat) *
Dermal, LD50(mg/kg): No data available
Eye irritation: Minimal irritant (Rabbit) *
Skin irritation: Mild 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 <sup>3</sup> ) 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: Not listed
NTP(USA): Not listed
OSHA Regulated(USA): Not listed



Page:5/6

MSDS No.: ICP-0697

Product	Name:	YELLOW	TONER
O G G O C	1. Outline	10000	T OT(DIC

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

# 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: None 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. Article 14(2.1) of Directive 1999/45/EC is not applicable to this product.



Page:6/6

MSDS No.: ICP-0697

Product Name: YELLOW TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

16. 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 Printer NC-A7020

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

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, pp.280-299.



Page:1/6

MSDS No.: ICP-0707

Product Name: MAGENTA TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

PRODUCT AND COMPANY IDENTIFICATION
 Product Name: MAGENTA TONER
 used for: NC-A7020
 Supplier Identification:
 Minolta Co., Ltd.
 3-13, 2-Chome, Azuchi-Machi, Chuo-Ku, Osaka 541-8556 JAPAN

Telephone: +81-6-6271-2251 Facsimile: +81-6-6266-1010 Contact Point:

Minolta Co., Ltd. (Quality & Ecology Division) 3-91, Daisennishimachi, Sakai, Osaka 590-8551 Japan Facsimile: +81-72-241-3427

2. COMPOSITION / INFORMATION ON INGREDIENTS Substance [ ] Preparation [ X ]

Major Ingredients:		
[Generic Name]	[CAS No.]	[%]
Styrene-acrylic resin	+++	80-90
Wax	+++	10-20
Organic pigment 1	+++	1-10
Organic pigment 2	+++	1-10
Amorphous silica	7631-86-9	1-10
Titanium compound	+++	1-10

+++: Supplier's confidential information

Hazardous Ingredients: None present



Page:2/6

MSDS No.: ICP-0707

Product Name: MAGENTA TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

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 (likemost 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, removes our ceof 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: Donotallowvictimtorubeye(s).Flushwithgentlyflowing 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: Ifdispersedinair, likemostfinelydivided 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.



Page:3/6

MSDS No.: ICP-0707

Product Name: MAGENTA TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

7. HANDLING AND STORAGE Handling Technical Measures: None 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): 4mq/m3Worksafe-TWA(Austl.): 10mg/m3 Personal Protective Equipment None required when used as intended in Minolta equipment. Other: 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: Red Odor: Slight mild odor 5-10 Particle Size(µm): Not applicable pH: Boiling Point: Not applicable Melting Point(°C): No data available Softening Point(°C): 125 Flash Point: Not applicable Ignition Temperature(°C): No data available Explosion Properties: No data available Vapor Pressure: Not applicable Density( $g/cm^3$ ): 1.2 Solubility in water: Negligible Oxidizing Properties: No data available Partition Coefficient, n-Octanol/Water: Not applicable



MATERIAL SAFETY DATA SHEET Page:4/6

	MSDS No.: ICP-0707
Product Name: MAGENTA TONER	
	Prepared date:25-Oct-2002
	Revised Date: 22-Jan-2003
0. STABILITY AND REACTIVITY	
Stability: Stable [ X ] Unstable	e[]
Hazardous Reactions: Dust explosi	ion, like most finely divided organic
powders.	
Conditions to avoid: Electric discha	rge, throwing into fire.
Materials to Avoid: Oxidizing mater:	ials.
Hazardous Decomposition Products: CO	), CO2
1. TOXICOLOGICAL INFORMATION	
Health Effects from Exposure: No sym	ptoms expected with intended use.
Toxicological Data	
Acute Toxicity:	
Inhalation, LC50(mg/l): >4	4.99 (Rat,4hour) *
_	nighest attainable concentration.)
<pre>Ingestion(oral), LD50(mg/kg): &gt;2</pre>	2000 (Rat) *
Dermal, LD50(mg/kg): No	o data available
Eye irritation: Minimal irri	tant (Rabbit) *
Skin irritation: Non irritant	(Rabbit) *
Skin sensitizer: Non sensitiz	er (Guinea pig) *
Mutagenicity: Neg	ative * (AMES test)
(*= Based on data for other Minolta P	<b>_</b>
Local Effects: see Chronic Toxicity	
Chronic Toxicity or Long Term Toxici	-
_	re dust may cause lung damage. It is
	", a generic response to excessive
_	the lungs for a prolonged interval.
_	l, does not result in inhalation of
excessive dust.	
	alation exposure to a typical toner,
	ng fibrosis was observed in 92% of
	$mg/m^3$ ) exposure group, and a minimal
_	noted in 22% of the animals in the
	ut no pulmonary change was reported group, the most relevant level to
potential human exposures.	group, the most rerevant rever to
Carcinogenicity	
IARC Monographs: Not listed	
NTP(USA): Not listed	



Page:5/6

MSDS No.: ICP-0707

Product Name: MAGENTA TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

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: None 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. Article 14(2.1) of Directive 1999/45/EC is not applicable to this product.



Page:6/6

MSDS No.: ICP-0707

Product Name: MAGENTA TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

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

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, pp.280-299.



Page:1/6

MSDS No.: ICP-0717

Product Name: CYAN TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

1. PRODUCT AND COMPANY IDENTIFICATION Product Name: CYAN TONER used for: NC-A7020 Supplier Identification: Minolta Co., Ltd. 3-13, 2-Chome, Azuchi-Machi, Chuo-Ku, Osaka 541-8556 JAPAN Telephone: +81-6-6271-2251 Facsimile: +81-6-6266-1010 Contact Point:

Minolta Co., Ltd. (Quality & Ecology Division) 3-91, Daisennishimachi, Sakai, Osaka 590-8551 Japan Facsimile: +81-72-241-3427

2. COMPOSITION / INFORMATION ON INGREDIENTS Substance [ ] Preparation [ X ]

[CAS No.]	[%]
+++	80-90
+++	10-20
147-14-8	1-10
7631-86-9	1-10
+++	1-10
	+++ +++ 147-14-8 7631-86-9

+++: Supplier's confidential information

Hazardous Ingredients: None present



Page:2/6

MSDS No.: ICP-0717

Product Name: CYAN TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

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 (likemost 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, removes our ceof 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: Donotallowvictimtorubeye(s).Flushwithgentlyflowing 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: Ifdispersedinair, likemostfinelydivided 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.



Page:3/6

MSDS No.: ICP-0717

Product Name: CYAN TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

7. HANDLING AND STORAGE Handling Technical Measures: None 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): 4mq/m3Worksafe-TWA(Austl.): 10mg/m3 Personal Protective Equipment None required when used as intended in Minolta equipment. Other: 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: Blue Odor: Slight mild odor 5-10 Particle Size(µm): Not applicable pH: Boiling Point: Not applicable Melting Point(°C): No data available Softening Point(°C): 125 Flash Point: Not applicable Ignition Temperature(°C): No data available Explosion Properties: No data available Vapor Pressure: Not applicable Density( $g/cm^3$ ): 1.2 Solubility in water: Negligible Oxidizing Properties: No data available Partition Coefficient, n-Octanol/Water: Not applicable



MATERIAL SAFETY DATA SHEET Page:4/6

MSDS No.: ICP-0717
Product Name: CYAN TONER
Prepared date:25-Oct-2002
Revised Date: 22-Jan-2003
10. 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
11. TOXICOLOGICAL INFORMATION
Health Effects from Exposure: No symptoms expected with intended use.
Toxicological Data
Acute Toxicity:
Inhalation, LC50(mg/l): >5.17 (Rat,4hour) *
(This was the highest attainable concentration.)
Ingestion(oral), LD50(mg/kg): >2000 (Rat) *
Dermal, LD50(mg/kg): No data available
Eye irritation: Minimal 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 <sup>3</sup> ) 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: Not listed
NTP(USA): Not listed
OSHA Regulated(USA): Not listed



MATERIAL SAFETY DATA SHEET Page:5/6

Product Name: CYAN TONER	
	Dropping data: 25 Oct 2002
	Prepared date:25-Oct-2002 Revised Date: 22-Jan-2003
	Revised Date: 22-Dan-2005
12. ECOLOGICAL INFORMATION	
No data are available on the adverse	e effects of this material on the
environment.	
13. DISPOSAL CONSIDERATION	
Appropriate Methods of Disposal	
Preparation(community provisions):	
	ted under conditions which meet all
federal, state and local environ	
Contaminated Packaging:	
	ted under conditions which meet all
federal, state and local environ	
Precautions:	
	r toner into an open flame. The hot
toner may scatter and cause burns	-
14. TRANSPORT INFORMATION	
Special Precautions: None	
Information on Code and Classificat	ions According to
International Regulations	
UN Classification: None	
15. REGULATORY INFORMATION	
US Information	
	lired
US Information	
US Information Information on the label: Not requ TSCA(Toxic Substances Control Act)	
US Information Information on the label: Not requ TSCA(Toxic Substances Control Act)	:
US Information Information on the label: Not requ TSCA(Toxic Substances Control Act) All chemical substances in this rules or order under TSCA.	: product comply with all applicable
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Page:6/6

MSDS No.: ICP-0717

Product Name: CYAN TONER

Prepared date: 25-Oct-2002 Revised Date: 22-Jan-2003

#### 16. 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 Printer NC-A7020

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

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, pp.280-299.