



bizhub C3851FS/C3351

Service Launch Guide

May 2017



KONICA MINOLTA

Konica Minolta bizhub C3851FS/C3531

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Konica Minolta bizhub C3851FS/C3351 Specification & Installation Guide



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01/17/2017

bizhub C3851FS/C3351 Specifications

Type	Full Color Printer/Copier/Scanner
Document Holder	Stationary (mirror scanning) Types: Sheets, books (page spreads), 3-dimensional objects Size: Maximum 8.5" x 14"
Photoconductor	Organic Photoconductor
Luminous Source	Red LED
Print Method	Semiconductor laser diode scanner + electrophotographic
Developing Method	Dry-type dual component HMT
Fusing Method	Belt fusing system
Resolution	Scanning: Up to 600 x 600 dpi Copying/Printing: 1,200 x 1,200 dpi (reduced speed)
Paper	Plain Paper (60-90 gsm) Thick Paper* (91-210 gsm) Coated Paper* (100-158 gsm) Postcards*, letterhead*, colored paper, envelopes**, label sheets*, recycled paper * Up to 20 sheets (Tray 1 and Bypass). ** Up to 30 sheets from Tray 1. Up to 10 sheets from Bypass.
Paper Sizes	Bypass Tray: 4"(W) x 6"(L) to 8.5"(W) x 14"(L) Tray 1 (Universal Tray): 4"(W) x 6"(L) to 8.5"(W) x 14"(L) Trays 2 and 3 (optional): 8.5"(W) x 11"(L) to 8.5"(W) x 14"(L)
Paper Tray Capacity	Bypass Tray: 100 sheets Tray 1 (Universal Tray): 550 sheets Trays 2 and 3 (optional): 500 sheets each (add up to two)
Exit Tray Capacity	Plain Paper: 250 sheets Thick Paper: 10 sheets
Warm-up Time	20 seconds or less
Image Loss Width (All Edges)	Copy: 0.157" Print: 0.165"
First Copy	C3851FS: Full Color: 9.2 sec. or less BW: 8.3 sec. or less C3351: Full Color: 9.1 sec. or less BW: 8.1 sec. or less
Print/Copy Speed (Color/BW)	C3851FS: Plain paper/letter: 40 ppm single-sided Thick paper/letter: 20 ppm single-sided C3351: Plain paper/letter: 35 ppm single-sided Thick paper/letter: 20 ppm single-sided

Magnification Ratios	Platen: Reduce/Enlarge: 25%–400% (0.1% increments)
Multiple Copies	1 to 999
Density Control	Copy Density: Manual Density Adjustment (9 steps)
Power Requirements	120V/60 Hz
Power Consumption	1550 W or less (max.)
Dimensions	21.9" (W) x 22.9" (D) x 23.7" (H)
Memory	4.0 GB RAM (UK-211 installed) (250 GB HDD)
Weight Approx.	C3851FS: Approx. 114 lb C3351: Approx. 105 lb

Duty Cycle

C3851FS: 120,000

C3351: 96,000

The Maximum Monthly Duty Cycle describes the maximum number of pages a device can output on a monthly basis. This specification is a guideline intended to offer a comparison of durability as it relates to the entire Konica Minolta MFP and printer product line so that the appropriate device can be placed in order to meet customer needs.

Basic Configuration

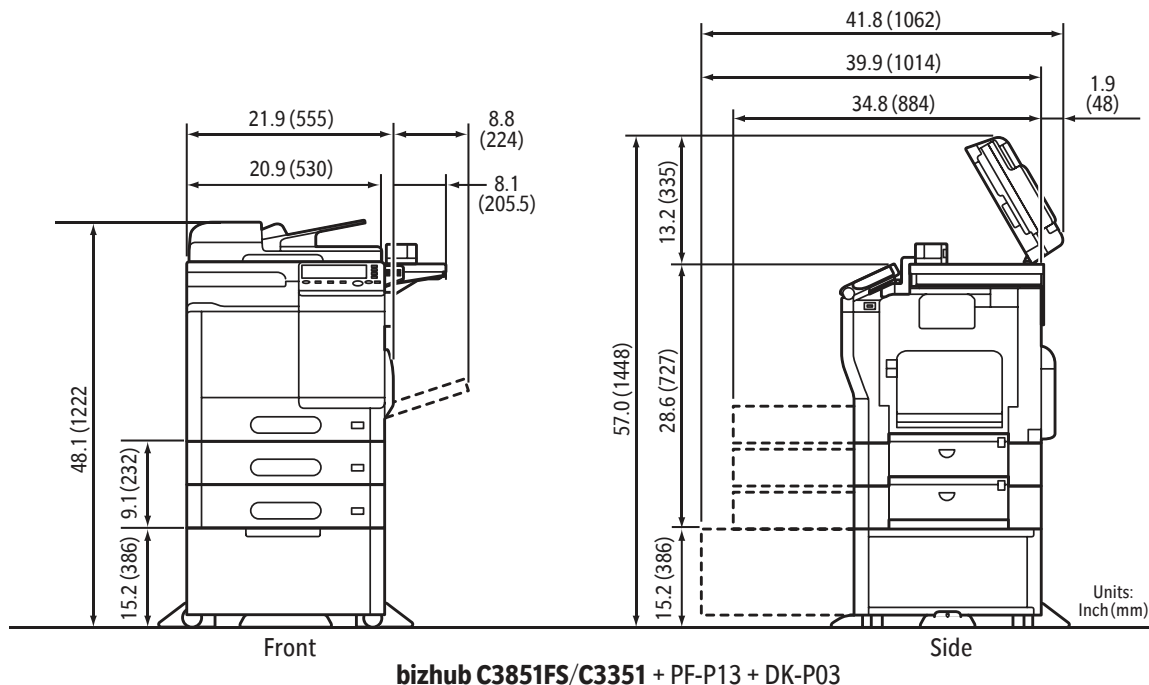
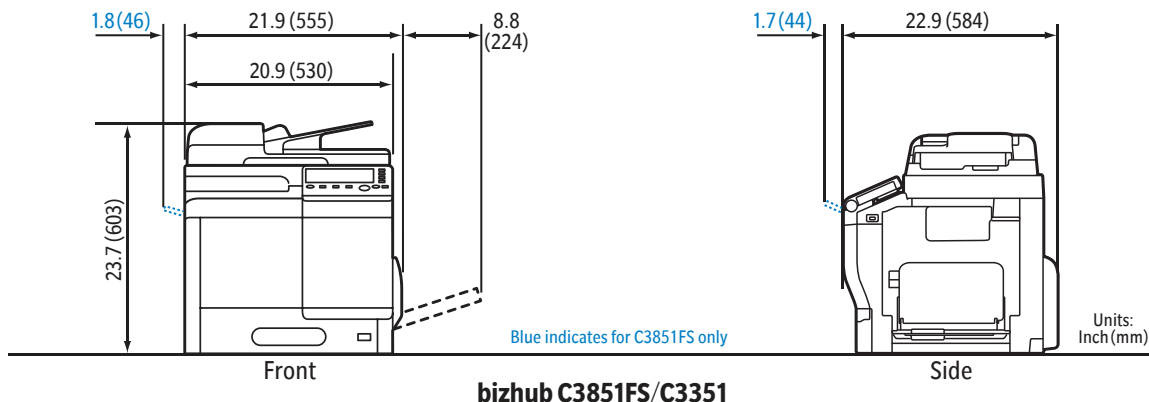


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Space Requirements



Environmental Requirements

Temperature	50°F to 86°F (operating)	
Humidity	15% to 85% (operating)	
Engine Noise	C3851FS	C3351
Printing:	≤ 72.3 dB	≤ 70.6 dB
Standby:	≤ 40.0 dB	≤ 40.0 dB
Ozone Emission	Monochrome: 1.5 mg/h or less Color: 3.0 mg/h or less	
Fusing Range	356° F (180° C)	

Electrical Requirements

Line options	Dedicated	NEMA Diagram for 5-15P
Voltage/Amperage	AC 220 to 240 V/ 7.5 Amp (50 to 60 Hz) AC 110 to 127 V/ 12.0 Amp (50 to 60 Hz)	
NEMA Part No.	5-15P	
Cord Length	6 ft.	



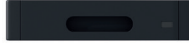
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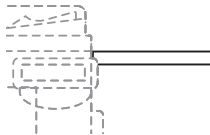
Component Considerations

PF-P13 Paper Feed Unit (Add up to two)



Type	500 sheet drawer (Max. 2)
Support Paper Weight	60–90 gsm
Support Paper Size	8.5" x 11" to 8.5" x 14"
Paper Capacity	500 Sheets
Power Requirements	Supplied from main body
Weight	19 lb

WT-P02 Working Table



Type	External Table
Function	For placement of off-line stapler or authentication devices. Can be used as a place holder for originals and/or output

DK-P03 Copy Desk



Type	Storage drawer only
Function	Storage of accessories, supplies, paper, etc.
Weight	37 lb
Dimensions (WxHxD)	21.9" x 22.9" x 15.2"

AU-205H IC Card Reader



Dimensions (WxHxD)	2.79" x 3.66" x 0.63"
Weight	0.25 lb
Power Supply	Supplied from USB Port
System Conditions (operating mode)	Ambient Temperature: 31° to 150° F Humidity: 5% to 95%
Card/Protocols Low Frequency (125 kHz)	HID PROX, HID Indala® Prox, EM Prox
Card/Protocols High Frequency (13.5 MHz)	CCID: MIFARE Classic™ 1K/4K, Ultra Light, Ultra Light C, Plus, MIFARE DESFire™ 0.6, MIFARE DESFire™ EV1, IC Card, iCLASS SE/ SR®, MIFARE SE™, DESFire EV1 SE, T=CL, ISO 14443 A with up to 848 kbps transmission rate (depending on card*), ISO 15693 with up to 26 kbps transmission rate (depending on card)

NOTE: WT-P02 Working Table or MK-P02 Mount Kit (internal mount) required.

*424 kbps default rate, 848 kbps configurable through web interface.

MK-P02 Mount Kit for AU-205H

Type	Mount kit/internal component
Function	Required to install AU-205H behind front panel.

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Component Considerations continued

CS-1 Convenience Stapler



Type	Standalone electronic stapler
Stapling Capacity	Up to 50 sheets
Paper Weight	Up to 90 gsm
Durability Cycle	Up to 200,000 stapling operations
Staple Position	Side or corner of document
Type of Clinch	Flat clinch
Dimensions (WxHxD)	5.31" x 5.7" x 7.48"
Weight	Approx. 3.74 lb
Power Supply	AC adaptor (supplied). Separate power output required.
Refill Staples	SK-602 (No. 505: 5,000 staples)

FS-P03 Off-Line Stapler



Type	Stapling (off-line)
Staple capacity	20 sheets (90 gsm)
Power supply	From device
Staples	SK-501
Dimensions (WxHxD)	4.3" x 4.6" x 2.9"
Weight	2.2 lb
Function	Provides finishing capabilities. Can be installed on working table WT-P02 or separately.

KP-101 10-Key Pad



Type	10-Key Pad for number entry
Function	Provides hard keys for entering numerical values, affixes to the right-hand side of the control panel. Meets Section 508 Accessibility requirements.

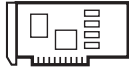
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Component Considerations

FK-517 Fax Kit (Standard for C3851FS)



Communication	Super G3
Compatible Lines	PSTN, PBX
Modem Speed	2.4 kbps – 33.6 kbps
Compression	MH/MR/MMR/JBIG
Transmit Paper Size	Max. 11" x 14"
Receive Paper Size	Max. 11" x 14"
Transmission Speed	Less than 3 sec. (V.34, 33.6 Kbps, JBIG)
Scan Speed	Up to 31 opm
Transmission Size	Flatbed: 8.5" (W) x 14" (L) ADF: 8.5" (W) x 39" (L)
Receiving Size	Max: 8.5" (W) x 14" (L)
Fax destinations	2,100 (2,000 single + 100 group)
i-Fax	Yes
PC-Fax	Yes
Functions	Program, Select from Address Book, Group Dial Program, Auto Redial, Original Type (Text, Text/Photo, Photo), Density, Memory TX, Busy / Error Redial, Broadcast TX, Timer TX, Confidential TX, Relay TX Request, Polling RX, TX Original Size Setting, Mixed Original TX, ECM Off, V34 Off TX, Password TX, Memory RX, Memory Vicarious Execution RX, Password RX, Call Rejection, Confidential Print, Auto Reduction Print, Full Size Print, Tel/Fax Auto Switch, Audio Response, Answering Machine Connection, Number Display, Dial-in, Vicarious Execution Forward, Remote RX, Nighttime Receiving User Box Destination Setting, Activity Report, TX Result Report, Broadcast Result TX Report, Broadcast Result RX Report, Various Lists, Long Paper Original TX/RX, PC-Fax TX/RX, Mistake TX Prevention

LK-102 v3 i-Option License Kit

Type	License Key
Function	Enhanced PDF Encryption (128-bit AES Encryption), PDF/A (1a/1b) and Linearized PDF file support.

Note: The LK-110 supports the same functions as the LK-102 v3, therefore, both license kits cannot be installed on the same device.

LK-104 v3 i-Option License Kit

Type	License Key
Function	Voice Guidance

LK-105 v4 i-Option License Kit

Type	License key
Function	Provides Searchable PDF function

Note: The LK-110 supports the same functions as the LK-105 v3, therefore, both license kits cannot be installed on the same

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Component Considerations continued

device.

LK-106 i-Option License Kit

Type	License key
Function	Supports Bar Code Font Printing

LK-107 i-Option License Kit

Type	License key
Function	Supports Unicode Font Printing

LK-108 i-Option License Kit

Type	License key
Function	Supports OCR Font Printing

LK-110 v2 i-Option License Kit

Type	License Key
Function	OOXML format file conversion for docx/xlsx, Fax to searchable PDF, convert box data to compact PDF, direct print e-mail attached file. Combines LK-102 (Encrypted PDF) & LK-105 (Searchable PDF/OCR) functionality.

Note: If you install the LK-110 on a device, you cannot install the LK-102 v3 and/or LK-105 v3 on the same device.

LK-111 i-Option License Kit

Type	License Key
Function	Provides ThinPrint client support

UK-211 Memory Expansion

Type	2 GB Memory expansion
Function	Required for Registered Overlay. Also required for concurrent use of Web Browser and Stamp Print, Watermark, Date/Time Print, Header/Footer, Image Overlay, or Management Number.

EK-P05 USB Host/Local Interface

Type	USB Interface and USB Cable
Function	Required to connect optional External Keyboard (or can use EK-P06 when Bluetooth printing is also required) or optional i-Option LK-104 Voice Guidance License kit.

EK-P06 USB Host/Local Interface with Bluetooth

Type	USB Interface and USB Cable
Function	Supports Bluetooth Printing. Required to connect optional External Keyboard (or can use EK-P05 if Bluetooth printing is not required) or optional i-Option LK-104 Voice Guidance License kit.

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Mixed Original Support

● Possible × Not Possible

Document Size ²	Maximum Document Width ¹				
	8.5" x 11" portrait	8.5" x 14" landscape	8.5" x 11" landscape	5.5" x 8.5" portrait	5.5" x 8.5" landscape
8.5" x 14" (□)	×	●	●	×	×
8.5" x 11" (□)	×	●	●	×	×

¹ Indicates the width of the widest document size of the mixed originals.

² Indicates the document sizes that can be mixed together based on the maximum document width.

Standard Paper Tray Support

Main Unit - bizhub C3851FS/C3351

Component	Capacity	Size	Weight
Bypass Tray	100 sheets	4"x6" to 8.5"x14"	Up to 110 lb index*
Tray 1 (Universal Tray)	550 sheets	4"x6" to 8.5"x14"	Up to 110 lb index*

* Automatically duplexed.

Print Function (Standard)

Controller	Emperon
Power Supply	Common with the main body
CPU	MB86S73 (1.2 GHz)
Memory	4.0 GB (2 GB Std. + UK-211 installed)
HDD	250 GB (Std.)
Print Speed	C3851FS: Color: 40.0 ppm – Letter Portrait BW: 40.0 ppm – Letter Portrait C3351: Color: 35.0 ppm – Letter Portrait BW: 35.0 ppm – Letter Portrait
First Print Time	15.0 seconds or less (color & monochrome)
Print Resolution	1,200 dpi x 1,200 dpi (reduced speed)
PDL	PostScript 3 (3016), PCL5 e/c (Emulation), XPS (ver. 1.0), PCL XL Emulation (3.0), PPML/GA 2.2, PPML/VDX, OpenXPS, PDF 1.7, OOXML (docx/xlsx/ppsx)
Protocol	TCP/IP (IPv4/IPv6), SMB, LPD, IPP1.1, SNMP, HTTP, HTTPS
Support OS	Server: Windows Server 2008 (64), Windows Server 2008 R2 (64), Windows 2008 SP2, Windows Server 2012 Client: Windows Vista SP2/7SP1/8.1/10, Windows Vista (64) SP2, Macintosh OS X Ver. 10.6 or later, Red Hat Enterprise Linux 5 or later
Interface	Gigabit Ethernet (10/100/1000 Base-TX), USB 2.0, USB 2.0 Host
Fonts	PCL Residential Fonts: 80 Outline PS3 Emulating Residential Fonts: 137

Print Drivers

PCL 6 (XL 3.0) Emulation	Windows Vista/7/8.1/10/Server 2008/2012, PCL6 Printer driver, Windows Vista/Server 2008 x64 Edition, Server 2008 R2 x64 Edition, PCL6 Print Driver
PostScript 3 (3016)	Windows Vista/7/8.1/10/Server 2008/2012, Windows Vista/Server 2008 x64 Edition, Server 2008 R2 x64 Edition, PS Print Driver Macintosh OS X 10.6 or later PPD+PDE Printer Driver PPD file: for Red Hat Enterprise Linux Printer driver
XPS (ver. 1)	Windows Vista/7/8.1/10/Server 2008/2012, Windows Vista/Server 2008 x64 Edition, Server 2008 R2 x64 Edition, XPS Printer Driver

Scanning Function (Standard)

Type	Full-Color Scanner
Scanning Size	Flatbed: 8.5"(W) x 14" □ max. ADF: 8.5"(W) x 39" □ max. (≤400 dpi) 8.5"(W) x 14" □ max. (600 dpi)
Scanning Resolution	600 x 600 dpi, 400 x 400 dpi, 300 x 300 dpi, 200 x 200 dpi
Scanning Speed	300 dpi: Up to 37 ppm ¹
Main Function	Scan-to-Email, Scan-to-SMB, Scan-to-FTP, Scan-to-USB, Scan-to-HDD, Scan-to-WebDAV, Network TWAIN Scan
Interface	Gigabit Ethernet (10/100/1000 Base-TX), USB 2.0
Protocol	TCP/IP (FTP, SMB, SMTP, WebDAV) TCP Socket WSD
Supported OS	Windows Vista(x64), Windows 7/8.1/10(x64), Windows Server 2008 (x64), Windows Server 2008 R2 (x64), Windows Server 2012 (x64), Macintosh OS X 10.6 or later
Output Format	PDF, JPEG, TIFF, XPS, Compact PDF, Encrypted PDF, PDF/A
Driver	Network TWAIN
Address Setting	LDAP

¹ Scan speed varies by resolution and amount of data being scanned.

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Network Functions

Sending the Scanned Data in an Email Message

Scanned data can be sent to a specified Email address. The destination is specified from the control panel of this machine, and the scanned data is sent as an Email attachment.

Sending the Scanned Data as Files (FTP)

Scanned data is uploaded to a specified FTP server. The FTP server address, login password, and other information are entered from PageScope Web Connection.

Sending the Scanned Data to a Computer on the Network (SMB)

Scanned data can be sent to a shared folder on a specified computer. The name of the destination computer, login password, and other information are entered from PageScope Web Connection.

Sending the Scanned Data to a USB Thumb Drive

Scanned data can be sent to a USB thumb drive inserted into the USB 2.0 Host Port on the side of the machine.

Sending the Scanned Data to the built-in HDD

Scanned data can be saved to the 320 GB HDD.

Sending the Scanned Data to WebDAV

Scanned data is uploaded to a specified web server. The host name, file path, user name and password are entered on the touch panel of the machine. The data files uploaded to the server can be downloaded from a computer on the network.

Connecting to the bizhub C3851FS/C3351 Wirelessly

The standard Wireless Network Interface can be used to connect to a wireless router, eliminating the need for a network cable to the machine. Or it can be configured to act as an access point for direct wireless communication with Android and iOS mobile devices.

Fax Function (Standard: C3851FS; Option: C3351)

Communication	Super G3
Compatible Lines	Public Switched Telephone Network, PBX
Line Density	Fine: 200 x 200 dpi Super Fine: 400 x 400 dpi Ultra Fine: 600 x 600 dpi
Modem Speed	33.6 Kbps
Compression	MH/MR/MMR/JBIG
Transmit Paper Size	Up to 8.5" to 14" (Flatbed) Up to 8.5" to 39" (ADF)
Receive Paper Size	Up to 8.5" to 14"
Transmission Speed	Approx. 3 seconds
Speed	Up to 37 ppm

Finisher Function (Standard: C3851FS)

Type	Inner Stapler Finisher
Output Tray	Output Tray 1
Staple Mode	Corner Front
Mode	Sort/Group (250 sheets) Offset Sort/Group (250 sheets) Staple (250 sheets or 25 sets)
Paper Type	Plain, Recycled, Letterhead
Consumable	SK-602 Staples (5,000 staples x3)

PageScope Software

Network & Device Management

PageScope Net Care Device Manager
PageScope Data Administrator
Driver Packaging Utility
PageScope Download Manager

User Tools

PageScope Print Status Notifier
PageScope Mobile (Android, iPhone, Windows)

Management Tools

bizhub vCare
bizhub Remote Panel

Optional Software

PageScope Enterprise Suite
▶ PageScope Account Manager
▶ PageScope Authentication Manager
▶ MyPrint Manager

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Security

Because information assets are critical, a company needs to effectively protect against the many security risks it faces.

- 1) Prevent Leaks of proprietary, confidential or personal information
- 2) Prevent unauthorized use of equipment
- 3) Effective data encryption
- 4) Protect data from being altered, duplicated or deleted
- 5) Prevent unauthorized access to data via the Internet
- 6) Protect against cyber attacks
- 7) Manage log history

Protective Functions:

- HDD Overwrite — Overwrite Data (choose from 8 modes)
- Secure Print (when printing confidential documents)
- Protect data by requiring department name and 8-digit password
- Account Track
- Prevent Unauthorized Use
- HDD Encryption
- PDF Scan Encryption
- Copy Protection (Print only)
- Network Authentication
- SSL/TSL Compatibility for PS Web Connection, PS Data Administrator and LDAP Server
- Scan Data Encryption (TCP/socket SSL Compatibility)
- LDAP Authentication
- IP Address Filtering
- HID Authentication Card Unit (Optional)
- IPv6
- Allow/Restrict USB Memory Printing/Scanning
- Secure Print

Paper Considerations

Paper Size Conversion Chart

Paper	Letter	Legal	Statement	Custom
Measurement	8.5" x 11"	8.5" x 14"	5.5" x 8.5"	3.6"(W)x5.8"(L) to 8.5"(W)x 14"(L)

Paper Weight Conversion Chart

gsm	Bond	Offset	Cover	Tag	Index	Point	Bristol	Caliper	
								inches	mm
60.20	16	40	22	37	33	3.2	27.4	0.0032	0.081
67.72	18	45	24	41	37	3.6	30.9	0.0036	0.092
75.20	20	50	28	46	42	3.8	34.3	0.0038	0.097
90.30	24	60	33	56	50	4.8	41.2	0.0048	0.120
105.35	28	70	39	64	58	5.8	48.1	0.0058	0.147
109.11	29	73	40	62	60	6.0	49.8	0.0060	0.152
116.63	31	81	45	73	66	6.1	53.2	0.0061	0.155
131.68	35	90	48	80	74	6.2	60.1	0.0062	0.157
135.45	36	90	50	82	75	6.8	61.8	0.0068	0.173
146.73	39	100	54	90	81	7.2	67.0	0.0072	0.183
150.50	40	100	56	93	83	7.3	68.7	0.0073	0.185
161.78	43	110	60	100	90	7.4	73.8	0.0074	0.188
165.55	44	110	61	102	92	7.6	75.5	0.0076	0.193
176.83	47	120	65	108	97	8.0	80.7	0.0078	0.198
199.41	53	135	74	122	110	9.0	91.0	0.0085	0.216
203.17	54	137	75	125	113	9.0	92.7	0.0090	0.229

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Paper Type Specifications

Normal (Plain Paper)

Normal paper is for general use. Normal paper is usually not a recycled paper.

Thick Paper 1

Thick Paper 1 is paper weighing between 91 to 120 gsm. It can be fed via Bypass Tray or Tray 1 (Universal Tray).

Thick Paper 1+

Thick Paper 1+ is paper weighing between 121 to 157 gsm. It can be fed via Bypass Tray or Tray 1 (Universal Tray).

Thick Paper 2

Thick Paper 2 is paper weighing between 40 to 55.5 lb bond. It can be fed via Bypass Tray or Tray 1 (Universal Tray) (Up to 20 sheets).

Envelopes

Envelopes can be fed through the Bypass Tray (Up to 10 sheets) or Tray 1 (Universal Tray – up to 30 sheets).

Recommended Media

Plain Paper (Color)	CF Paper 80, Hammermill Laser Print, New Radiant White 90
Plain Paper (Monochrome)	Hammermill Tidal MP (20 lb = 75 gsm)
Recycle Paper	Domtar Recycled Copy (20 lb = 75 gsm)
Thick Paper (1, 1+, 2)	Hammermill Color Copy Paper 32 lb (120 gsm) Color Copy Cover 60 lb (163 gsm)
Glossy Paper	POD 128 gsm Gloss Coat
Envelope	C10 (105 x 240 mm) Open End Envelopes OE1024911 Paper Presentation Open End #10 Envelope Monarch (98 x 190 mm) Kentwove 43539 SUB.23 Kentwove 70944 SUB.24

NOTE: Please log onto mykonicaminolta.com for updates on paper recommendations. You can find updates in the latest Specifications and Installation Guide or the latest Media Guide.

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How to Build a bizhub C3851FS/C3351 System (from start to finish)

Step 1: Base Unit

- **C3851FS Digital Color Printer/Copier/Scanner/Fax/Finisher**
Includes PS, PCL & XPS Controller, 4 GB Memory*, 250 GB HDD, Standard Wireless Connectivity and Web Browser, Standard Super G3 Fax, Standard Gigabit Ethernet, Duplex Unit, Stapler Finisher, 50-sheet Automatic Duplex Document Feeder, Standard USB 2.0 (supports local printing), CMYK Toner (Yield: 12K/13K) and Imaging Units.
- **C3351 Digital Color Printer/Copier/Scanner**
Includes PS, PCL & XPS Controller, 4 GB Memory*, 250 GB HDD, Standard Wireless Connectivity and Web Browser, Standard Gigabit Ethernet, Duplex Unit, 50-sheet Automatic Duplex Document Feeder, Standard USB 2.0 (supports local printing), CMYK Toner (Yield: 12K/13K) and Imaging Units.

Step 2: Paper Handling Options

- PF-P13 Paper Feed Unit (500 sheets, maximum 2)
- DK-P03 Copy Desk

Step 3: Finishing Options

- In-Line Stapler (Standard/C3851FS Only)
- FS-P03 Off-Line Stapler
- CS-1 Convenience Stapler

Step 4: Additional Options

- AU-205H IC Card Reader**
- MK-P02 Mount Kit for Card Readers
- EK-P05 USB Connection Kit
- EK-P06 USB Connection Kit – Bluetooth
- KP-101 10-Key Pad
- FK-517 Fax Kit (Option for C3351 only)
- WT-P02 Working Table
- LK-102 v3 – Enhanced PDF Encryption, PDF/A (1a/1b) and Linearized PDF support
- LK-104 v3 – Voice Guidance
- LK-105 v4 – Searchable PDF
- LK-106 – Barcode Font Printing
- LK-107 – Unicode Font Printing
- LK-108 – OCR Font Printing
- LK-110 v2 – OOXML file conversion, Enhanced Image Data, Combines LK-102 & LK-105 functionality
- LK-111 – ThinPrint® Client Support
- UK-211 Expanded Memory Unit (Required for full functionality)



* 2GB Std. + UK-211 installed.
** WT-P02 or MK-P02 required for mounting.

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Accessory Options for bizhub C3851FS/C3351 Digital Color Printer/Copier/Scanner/Fax

ITEM	ITEM NO.	DESCRIPTION	NOTES
BASE UNIT			
bizhub C3851FS*	A92G011X011	Digital Color Printer/Copier/Scanner/Fax/Finisher	Includes PS, PCL & XPS Controller, 4 GB Standard Memory when UK-211 is installed, 250 GB HDD, Standard Wireless Connectivity and Web Browser, Standard Super G3 Fax, Standard Gigabit Ethernet, Duplex Unit, Stapler Finisher, 50-sheet Automatic Duplex Document Feeder, Standard USB 2.0 (supports local printing), CMYK Toner (Yield: 12K/13K) and Imaging Units.
bizhub C3351*	A92F011X011	Digital Color Printer/Copier/Scanner	Includes PS, PCL & XPS Controller, 4 GB Standard Memory when UK-211 is installed, 250 GB HDD, Standard Wireless Connectivity and Web Browser, Standard Gigabit Ethernet, Duplex Unit, 50-sheet Automatic Duplex Document Feeder, Standard USB 2.0 (supports local printing), CMYK Toner (Yield: 12K/13K) and Imaging Units.
PAPER HANDLING OPTIONS			
DK-P03	9967002766	Copy Desk	Adds storage and mobility. Brings MFP up to working height.
PF-P13	A4Y6WY2	Paper feed unit	Lower feeder unit adds 500 sheets of paper capacity (8.5" x 11" or 8.5" x 14"). Add up to 2. Total paper capacity: 1,650 sheets.
FINISHING OPTIONS			
CS-1	7640013463	Convenience Stapler	Standalone electronic stapler.
FS-P03	A6VDWY1	Stapler	Provides 20-sheet corner stapling off-line finisher.
ADDITIONAL OPTIONS			
AU-205H	R5427000136466	IC Card Reader	Allows access to the MFP via HID Proximity Cards. Working table recommended. Supports IC card types.
EK-P05	A9FVWY1	Local USB Interface Kit	Required to connect optional external keyboard and supports Voice Guidance functions available with optional LK-104 v3.
EK-P06	A9FRWY1	Local USB Interface Kit	Required to connect optional external keyboard, provides bluetooth printing support for mobile phone link and supports Voice Guidance functions available with optional LK-104 v3.
FK-517	AA1K011	Fax Kit	Adds Super G3 fax functionality for the bizhub C3351 (standard for the bizhub C3851FS).
KP-101	A64TWY3	10-Key Pad	Optional 10 Key Pad. Affixes to the right-hand side of the control panel.
LK-102 v3	A0PD016	i-Option License Kit	Enables 128-bit AES PDF encryption; PDF File and password are encrypted; provides PDF/A (1a/1b) and Linearized PDF file format support. Requires UK-211 Memory Upgrade. Please note that the LK-110 supports the same functions as the LK-102 v3, therefore, both license kits cannot be installed on the same device.
LK-104 v3	A0PD017	i-Option License Kit	Provides Voice Guidance functionality. Requires UK-211 Memory Upgrade.
LK-105 v4	A0PD01T	i-Option License Kit	Provides Searchable PDF functionality. Requires UK-211 Memory Upgrade. Please note that the LK-110 supports the same functions as the LK-105 v3, therefore, both license kits cannot be installed on the same device.
LK-106	A0PD019	i-Option License Kit	Provides Bar Code Font printing support. Requires UK-211 Memory Upgrade.
LK-107	A0PD01F	i-Option License Kit	Provides Unicode Font printing support. Requires UK-211 Memory Upgrade.
LK-108	A0PD01G	i-Option License Kit	Provides OCR Font printing support. Requires UK-211 Memory Upgrade.
LK-110 V2	A0PD01U	i-Option License Kit	Provides DOCX, XLSX format file conversion, Fax to searchable PDF, convert print data in box to compact PDF, combines LK-102 (encrypted PDF) & LK-105 (searchable PDF/OCR) functionality. Requires UK-211 Memory Upgrade. Please note that if you install the LK-110 on a device, you cannot install the LK-102 v3 and/or LK-105 v3 on the same device.
LK-111	A0PD01K	i-Option License Kit	Provides ThinPrint client support.
MK-P02	A732WY1	Mount Kit	Internal mount kit for AU-201H or AU-202H HID Card Authentication Units. Required if card readers are not mounted using the WT-P02 Working Table.
WT-P02	A6VCWY2	Working Table	Recommended for use with FS-P03, CS-1 or Authentication Units.

* Please refer to specific channel price book for accurate item numbers. Item numbers may differ by channel.

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Accessory Options for bizhub C3851FS/C3351 Digital Color Printer/Copier/Scanner/Fax

CONSUMABLE YIELDS*

CONSUMABLE	ITEM NO.	YIELD
Toner – C	A95W430	12,000
Toner – M	A95W330	12,000
Toner – Y	A95W230	12,000
Toner – K	A95W130	13,000
Imaging Unit – C	A95X0HD	50,000
Imaging Unit – M	A95X0CD	50,000
Imaging Unit – Y	A95X06D	50,000
Imaging Unit – K	A95X01D	60,000
Waste Toner Bottle	A4Y5WY1	36,000
Staples SK-501 (For Standard Finisher)	A6Y8WY1	1,000 x 3 pkg/case
Staples SK-602 (For FS-P03 Finisher)	14YK	5,000 x 3 pkg/case

* Based on 20% total coverage.

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Documentation Information



All documentation can be downloaded from MyKonicaMinolta.com by clicking on Product Reference Materials under the Products Portlet.

User Manuals

bizhub C3851FS/C3351 HTML User Guide
bizhub C3851FS/C3351 Quick Start Guide
bizhub C3851FS/C3351 Section 508 HTML User Guide

Service Manuals

bizhub C3851FS/C3351 Service Manual HTML
bizhub C3851FS/C3351 Service Manual PDF

Parts Manuals

bizhub C3851FS Parts Manual
bizhub C3351 Parts Manual
EK-P05 Parts Manual
EK-P06 Parts Manual
FK-517 Parts Manual
FS-P03 Parts Manual
KP-101 Parts Manual
MK-P02 Parts Manual
PF-P13 Parts Manual
WT-P02 Parts Manual

Installation Instructions

bizhub C3851FS Installation Instructions
bizhub C3351 Installation Instructions
bizhub C3851FS/C3351 Installation Instructions
Additional Information
bizhub C3851FS/C3351 Network Fax Install Instructions
AU-102 Installation Instructions
EK-P05 Installation Instructions
EK-P06 Installation Instructions
FK-517 Installation Instructions
FS-P03 Installation Instructions
KH-P01 Installation Instructions
KP-101 Installation Instructions
MK-P02 Installation Instructions
PF-P13 Installation Instructions
UK-211 Installation Instructions
WT-P02 Installation Instructions

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Firmware and Drivers



Firmware and Drivers can be downloaded from the [One Stop Product Support](#) located under the Service tab on mykonicaminolta.com

Program Release Information

CSES ID-No. DLBT1701471EN

Model: bizhub C3851FS/C3351

MFP firmware Ver. G00-K8

Subject: bizhub C3851 Series: Mass-Production Program Function Version3.3 (Ver. G00-K8)

1. Release version and download file name

The newly released program version and download file name is as follows.

[Release version]

< C3851 Series MFP firmware >

Model	Program Name	Current Ver.	New Ver.	Program File Name
bizhub C3851 Series	MFP firmware	G00-11	G00-K8	A92E0Y0-F000-G00-K8.exe

<C3851 Series Movie Data>

Model	Program Name	Current Ver.	New Ver.	Program File Name	Note
bizhub C3851 Series	Movie Data	00	60	A92E0Y0-C000-G00-60_Movie_F3.3(with HDD).exe	for HDD mounted

<C3851 Series Voice Data>

Model	Program Name	Current Ver.	New Ver.	Program File Name
bizhub C3851 Series	Voice Data	00	62	A92E0Y0-C100-G00-62_Voice_F3.3.exe

<C3851 Series Drivers/Application>

Model	Program Name	Current Ver.	New Ver.	Download File Name	Note
bizhub C3851 Series	PCL Printer Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.1.2.0	C3851_Series_PS_PCL_FAX_v2.x.x.0.zip	With WHCK (Win_x86,Win_x64)
	PostScript3 Printer Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.0.0.0		With WHCK (Win_x86,Win_x64)
	FAX Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.0.0.0		With WHCK (Win_x86,Win_x64)
	XPS Printer Driver for	1.1.0.0	2.1.0.0	C3851_Series_XPS_v2.	With WHCK

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Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016			1.0.0.zip	(Win_x86,Win_x64)
PCL Mono Printer Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.1.2.0	C3851_Series_PS_PCL_XPS_Mono_v2.x.x.0.zip	With WHCK (Win_x86,Win_x64)
PostScript3 Mono Printer Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.0.0.0		With WHCK (Win_x86,Win_x64)
XPS Mono Printer Driver for Windows Vista/7/8.1/10 Server2008/2008R2 Server2012/2012R2/2016	1.1.0.0	2.1.0.0		With WHCK (Win_x86,Win_x64)
MacOS X (Version10.7.x) PS-PPD	1.1.0	2.0.0	C3851_Series_MacOS_v2.0.0.zip	
MacOS X (Version10.8.x) PS-PPD	1.1.0	2.0.0		
MacOS X (Version10.9.x,10.10.x,10.11.x) PS-PPD	1.1.0	2.0.0		
Real-Time Mode TWAIN Driver	4.0.32000	4.0.33000	TWAIN_v4.0.33000.zip	
HDD TWAIN Driver	4.0.32000	4.0.33000		

[Download File Name]

A92E0Y0-F000-G00-K8.exe

A92E0Y0-C000-G00-60_Movie_F3.3 (with HDD).exe

A92E0Y0-C100-G00-62_Voice_F3.3.exe

C3851_Series_PS_PCL_FAX_v2.x.x.0.zip

C3851_Series_XPS_v2.1.0.0.zip

C3851_Series_PS_PCL_XPS_Mono_v2.x.x.0.zip

C3851_Series_MacOS_v2.0.0.zip

TWAIN_v4.0.33000.zip

PRI_C3851_Series_DLBT1701471EN_0.docx

2. What changed

2.1. Release of bizhub C3851 Series (Mass-Production Program Function Version3.3 Ver. G00-K8)

The individual files and the checksum are as follows.

Program Name	File Name	Checksum	Note
MFP Card Version	A92E0Y0-F000-G00-K8		
MFP Controller BOOT Program	A92E0Y0-1E00-G00-02	D73B	
Linux-based MFP Controller	Linux-3.10.40	45AC	

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MFP Controller Kernel Program	A92E0Y0-1C00-G00-04	7025	
MFP Controller Subset	A92E0Y0-1F00-G00-J2	C405	
MFP Controller	A92E0Y0-0100-G00-K8	1255	
MFP Controller System	A92E0Y0-1000-G00-K8		
MFP Controller Print Controller	A92E0Y0-3000-G00-J2		
MFP Controller Print Controller Font	A92E0Y0-3F00-G00-J0		
MFP Controller Print Controller Demo Page	A92E0Y0-3E00-G00-00		
Image Reader Controller	A92E0Y0-8600-G00-J1		
MFP Controller MIO	A9HJ0Y0-5000-G01-B2		
MFP Controller PIC	A92E0Y0-8200-G00-02		
FAX board controller	A8790Y0-4000-G00-16	149C	
Operation panel message data	A92E0Y0-8100-G00-J6	D003	
ADF	A92E0Y0-0024-G00-00	6B91	
Machine Controller	A92E0Y0-0200-G00-11	5A2A	
Machine Controller Printer	A92E0Y0-0220-G00-11	5D22	
Machine Controller Media	A92E0Y0-0230-G00-00	7237	
Machine Controller IO	A92E0Y0-0240-G00-00	D58D	
Machine Controller Scanner	A92E0Y0-0300-G00-00	3B64	
Finisher (FS-P03)	A63D0Y0-0071-G00-03	3C61	
SATA Controller	A7AH0Y0-6401-G00-04	D012	
Integrated Printer Driver Version	5-3.3-0-G00-K6		

2.2.Fixed issues

2.2.1. The following new OS has been supported in PCL/PS/XPS drivers.

Windows Server 2016

2.2.2 The following issue is solved in PCL driver.

- Printing by Point&Print becomes slow if printer setting is changed from defaults.[ERBAU_1500855679]

2.2.3 The following issues are solved in this firmware. (The functional restrictions at the initial mass-production program)

- When the original size or the paper size is set to Custom Size, "Portrait" originals/paper image is displayed on preview image picture of Copy screen.
- After released paper jam, if the other warning occurred while the warning "Reload the paper" is displayed; The message "Reload the paper" will be displayed again after released the other warning. (the warning disappears after 5 sec)
- The following screen will be displayed after releasing the warning when multiple warnings (including paper jam) occur at the same time.
 - (1)In case the paper jam is solved in the end when multiple warnings (including paper jam) occur at the same time;
The warning "Reload the paper" will disappear 5 sec later. (it should be disappeared 2 min later)
 - (2)In case the warning except for paper jam is solved in the end when multiple warnings (including paper jam) occur at the same time; The warning "Reload the paper" will be displayed again. (it disappears 5 sec later)

2.2.4 The following issues are solved in this Boot Rom.

A machine may hung up when the followings are performed.

- When starting a machine after the firmware is updated.
- In a case of changing the Software Switch Setting in Service Mode when changing an electronic option or the other options.
- When changed the Hardware Configurations.
 - > a physical memory capacity (mounting or removal of additional memory)
 - > a board replacement
 - > a panel replacement
- When starting a machine in Self-diagnostic mode.

Solution: Update the Boot Rom and the Controller Firmware. (Please refer to the "4.How to install" for the details.)

2.2.5 The following issues are solved in this firmware. (Problems found on the A3 models)

1. If the main switch is turned OFF/ON in the moment when a user deletes FAX receive jobs (during job deletion processing) on the machine whose DipSW No.77 is set to HEX 20, FAX receive jobs may not be printed or saved in the Memory RX User Box after rebooting. [ERBJNG1500858859]
2. If MFP shifts to Power Save mode with setting a paper on the Bypass Tray, "Tray Settings (Manual Tray)" screen is displayed after recovering from the Power Save mode. [ERBJ__1500864109]
3. FA14(0x6069) occurs when entering to Low Power mode after interrupting a job of scanning an original into Searchable PDF. [ERBJKG1500847922]
4. If sending FAX jobs repeatedly by using broadcast transmission with the following setting, the MFP doesn't scan the original and can't send FAX job. [ERBJNG1500815044]
[Administrator Settings] > [Fax Settings] > [Report Settings] > [Sequential TX Report] > [ON]
[Administrator Settings] > [Fax Settings] > [Report Settings] > [Broadcast Result Report] > [Each Destination]
5. After performing running mode, the eco checks for paper trays are cleared. [ERBJ__1500862597]
6. The countermeasure for the vulnerability of the Glibc (CVE-2015-7547). [QUBJSL1600867933]
7. Some of fill patterns of Excel file are printed lightly by using PS driver. [ERBJTK1600866016]
*To set the function for reflecting the switch of Edge judgment level. (bit 7)
Software SW No. 100
0x00: Disable (default)
0x80: Enable (Change the Edge judgment level and make the output smooth.)
8. After sending FAX/Email job by using broadcast transmission, MFP doesn't accept next FAX/Email job. [ERBJTK1600871643]
9. The button for switching the display of the registered destinations in the Fax/Scan screen disappears when recovering from sleep mode. [ERBJTK1600872682]
10. The function for increasing priority may not work. [ERBJTS1600871112]
11. The total value of the counter data exported from PSWC is different from the one in the MFP. [ERBJTS1600872979]
12. An error message appears when trying to open scanned PDF file. [ERBJKG1600872691]
13. The counter list, Activity Report, etc. are output with the missing image. [ERBJTS1600871811]
14. C-E301(0xC142) may occur if receiving large quantities of SSDP packet. [ERBJTK1600871601]
15. When [PDF Web Optimization Default Settings] is set to [Enable], Page Separation setting is not reflected on Default Scan Settings. [ERBJTS1600873729]
16. The specific PDF file created from FileMaker cannot be printed by E-mail RX Print function. [ERBJTK1600873135]
17. The Operation Support of Auto-Start Duplex Printing after the Scan of Second Page of the Original Using

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Platen. [ERBJTK1500854577]

Availability of automatically printing function after the scan of second page of the original using platen (bit0)

Software SWNo. 229 0x00: Disable(Default)

Software SWNo. 229 0x01: Enable (bit0)

[Operating Conditions]

This function is able to be used if the following settings are made.

- Mode: Copy Mode
- Printing Method: [1sided]->[2sided]
- Scan Method: Glass Platen
- Separate Scan: On

[Restriction]

Regarding the following conditions, conventional operation will be operated even though it meets the operating conditions.

- Scan documents by ADF
- Use the following settings *Since the number of scan page cannot be determined.
 - Combine/Booklet/Card Shot
 - Group/Sort/Offset
 - Staple/Punch/Fold
 - Insert Sheet/Insert Image/Cover Sheet
 - Page Separation/Original Setting : Booklet Original
 - Overlay
 - Program Registration

18. When printing a specific Word file (.docx) directly from a USB Memory, trouble code: C-E301 occurs.

[ERBJTK1600875065]

19. When touching the Authentication Unit with card after printing a job by ID&Print with [Individual Receiving Line Setup] is set to [ON], the message "Please wait." is kept displayed and the job is not printed.

[ERBJTK1600874056]

20. Created widget is deleted by turning the main power switch OFF and ON. [ERBJNG1600871209]

21. C-E301(0xC3BB) occurs after the screen changes from the main menu to ID & Print User Box and the key for moving to the System Box screen is tapped. [ERBJTS1600868925]

22. An error occurs if a double-byte space is entered for sort character when registering a destination with an address book from PSWC. [ERBJOS1500858854]

23. When printing the counter list in Vendor Mode, Eco-Related Information is output on the list.

[ERBJNG1600876675]

24. MFP may freeze if the image log has reached the maximum allowed. [ERBJ__1600876179]

25. After recovering from a trouble (after rebooting the MFP), [Priority Mode] may be changed from main menu to [Copy]. [ERBJOS1600879492]

26. The panel may occasionally freeze when MFP performs Stabilizing image while printing a job with large size of paper. [ERBJOS1600880281]

MFP records the trouble code C-E301 (detail code: 0xC0A1) on trouble code history when the panel freezes.

27. Only the Fax Number is displayed in destination field on the FAX dial waiting screen. [ERBJTG1600878390]

28. The function of forced Pure Black (DipSW105_bit0) is not available. [ERBJSL1600876982]

29. The image offset caused by fusing unit may occur when receiving a PC print or fax after returning from power save mode. [ERBJKG1500862292]

30. Card Information is not transferred by using External Memory Backup function. [ERBJKS1600879577]

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31. If the FW function version is downgraded from 3.2 to 3.0, PSDA cannot connect to the MFP.
[ERBJOS1600883637]
32. C-E301(0xC164) occurs when displaying the preview image in printing a file that have blank page and that is saved on the box with [Booklet] setting. [ERBJTS1600882446]
33. C-D706 may occur if the automatic update of FW is performed using machine auto update function.
[ERBJ__1600880459]
34. Some languages are mixed in MyPrintManager Job list screen. [ERBDFS1600872287]
35. The "AltGr" button is grayed out in the password confirmation screen. [ERBDFS1600873728]
36. Configured Daylight Saving Time isn't reflected to the description of sending time on E-mail Notification.
[ERBDFS1600874352]
37. The error (GeneralTagMissing) may occur if the file format in [Fax Forwarding Settings] is changed using PSWC. [ERBDSP1600871851]
38. SSL sessions cannot be performed after installing Windows Update. [ERBDFS1600877399]
39. C-E301(0xB34D) occurs if performing copy immediately after booting an MFP when intermediate authentication is configured. [ERBDFS1600876099]
40. C-DFA1 may occur when 2-sided scanning or copying an original with DF-704. [ERBDFS1600876099]
41. After inputting a value on custom setting screen of Scan-D, the function for updating the screen information fail to work correctly after the second input. [ERBUS_1600867244]
42. When printing a specific PDF file from ERP system by Direct Print, a blank sheet is output.
[ERBUS_1600873545]
43. The icons on the screen for selecting application are not displayed. [ERBUS_1600876979]
44. [User box Settings] on [System Settings] is not displayed. [ERBUS_1600878682]
45. The trouble code C-E301 (detail code: 0xC14C) may occur when performing AirPrint. [ERBUS_1600876120]
46. J99-02 occurs when copying on the MFP with M500 installed. [ERBUS_1600884341]
47. Name resolution may fail due to the response delay from DNS server.
Thus, a phenomenon such as E-mail sending failure occurs. [QUBAU_1500861291]

The following functions are provided for this issue.

To change the response waiting time (timeout) from DNS server.

Software SW No. 180 (bit 2,3)

0x00: 1 second (default)

0x04: 1 second

0x08: 15 seconds

0x0C: 30 seconds

To retry specified number of times when there is no response from DNS server.

Software SW No. 185 (bit 0,1)

0x00: zero (default)

0x04: zero

0x02: 2 times

0x03: 4 times

48. The DipSW that changes the default position of the scroll bar on application function screen to [A] Basic] can not be valid. [ERBAU_1600874490]
49. C-E301(0xB192) occurs when MFP receive divided data from Webdav(CSRC) Server. [ERBAU_1600873467]
50. The lamp for the CIS module may stay on if opening and closing the ADF. [ERBAU_1600880739]
51. When printing a specific PCL file, the barcode is not printed correctly. [ERCW__1600870609]
52. When performing HPGL printing, offset lines are misaligned. [ERCW__1600872563]

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-
- 53. The PDF file created on Windows10 can not be printed by Direct Print. [ERCW__1600876945]
 - 54. Thin lines appear around characters when printing a specific Word file on a custom size paper.
[ERMura1600880844]
 - 55. When selecting the document stored in Memory RX User Box, another document is displayed.
[ERMura1600874311]
 - 56. C-E301(0xC057) may occur when returning from sleep mode by pressing the power key while receiving a fax.
[ERMura1600872544]
 - 57. The custom setting button is displayed in blank when the MFP is rebooted after registering language information of OpenAPI Authentication application. [QUDSEU1500864513]
 - 58. Special characters is not available on Software Keyboard when entering password on Authentication Browser.
[ERDSEU1600875040]
 - 59. When printing multiple originals with an odd number of pages from ERP system by 2-sided, the first page of next original is printed on the last page of previous original (blank paper). [ERBPL_1600868405]
 - 60. FAX job that is received by using FAX Information Service on SafeQ environment isn't transferred.
[ERBTH_1600868704]
 - 61. Box function is displayed in the menu screen even though only Copy and Scan function are set to be displayed in SafeQ environment. [ERBGB_1600871249]
 - 62. The operation panel freezes when operating the custom setting screen of OpenAPI on Scan-D.
[ERBNZ_1600872166]
 - 63. When printing a specific file, C-E301(0xC135) occurs. [ERBIT_1600873011]
 - 64. The error of word expression for "Size" in Widget Setting [ERBSA_1600875119]
 - 65. The panel doesn't respond when registering a destination by using Traditional Chinese characters.
[QUTECO160087206]
 - 66. Specific character is printed incorrectly when printing a PDF by Direct Print. [ERBF__1600876544]
 - 67. Scan To Home fails when using PageScope My Panel Manager. [ERBEU_1600874551]
 - 68. Due to a lot of ARP packet, the operation panel keeps showing loading screen. [ERSIND1600868915]
 - 69. The function for enabling obtaining the number of printed copies of Job history through MIB (DipSW167 bit0) does not work. [ERBCN_1600877829]
 - 70. When entering the password for Account track, * (asterisk) is not display on the input field.
[QUBMY_1600880430][ERBDFS1600881254]
 - 71. Printing by Point&Print becomes slow if printer setting is changed from defaults.
 - 72. Buttons are not displayed in a screen indicating connection of an external memory when using the authentication function in combination with Scan to Authorized Folder Settings.
 - 73. Trouble Code: C-E303 may occur when IWS application is started up with [Overwrite HDD Data] set to [Yes].
 - 74. If trying to copy a document with composing a registered overlay image, Panel lock may occur.
 - 75. C-E301 occurs when sending the request to change the screen of OpenAPI (AppReqExtChangeScreen).
 - 76. When pressing the reset button after performing card authentication with using Browser Authentication application, the card authentication is not available.
 - 77. You cannot enter characters using the keyboard if the MFP, to which AU-205H in KeyboardEmulator mode and an external keyboard are connected, is started.
 - 78. The log that is saved on HDD when a trouble occurs under the following Software Switch is outputted with the data missing.
Setting of Software Switch
Software Switch No. : 18
HEX Assignment : 05
[Caution]
Since this fix, MFP will be reboot automatically after 6 minutes from a trouble occurs if the Software Switch is set to above setting and trouble auto reboot function is enable.

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- 79. The fusing unit causes a noise.
- 80. Fusing offset image for High temperature and high humidity environment.
Modify the temperature (10 degree UP) table in fusing unit.
- 81. Color print jobs from PS driver are printed as B/W jobs. [ERBJOS1600885749]

3. Functional restrictions

None.

4. How to install

When upgrading the Boot Rom and Controller Firmware, please follow the steps below.

1. Please install the Boot Rom first.
2. Please install the Controller Firmware.

For detailed information, please refer to the Service manual.

About Software Switch Settings

Switch No.: 25

HEX Assignment: 70 -> Function Version 3.3

When upgrading Function Version to 3.3, please install the Voice and movie Data for Function Version 3.3.

When upgrading Function Version, please install drivers or applications that are correspond to the Function Version to be used.

5. Program that recommends applying at the same time

Combinations of this program and other latest program versions are as follows.

[bizhub C3851 Series related]

Model	Program Name	Version
bizhub C3851 Series	MFP Card Version	G00-K8
	PCL Printer Driver	2.1.2.0
	PostScript3 Printer Driver	2.0.0.0
	FAX Driver	2.0.0.0
	PageMaker PS-PPD	10000.0004
	XPS Driver	2.1.0.0
	PCL Printer Driver Mono	2.1.2.0
	PostScript3 Printer Driver Mono	2.0.0.0
	XPS Driver Mono	2.1.0.0

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	Linux PS-PPD	10000.0004
	MacOS X (Version10.7) PS-PPD	2.0.0
	MacOS X (Version10.8) PS-PPD	2.0.0
	MacOS X (Version10.9.x,10.10.x,10.11.x) PS-PPD	2.0.0
	Real-Time Model TWAIN Driver	4.0.33000
	HDD TWAIN Driver	4.0.33000
	Auth Device Tool Advanced for AU-201/AU-201S	2.1.00000
	Auth Device Tool Advanced for YSoft CRv2	1.2.00000
	Auth Device Tool Advanced for 5427CK (AU-205H)	1.1.00000

6. OpenAPI supported function level

The following is OpenAPI supported function level on this firmware.

OpenAPI:

OpenAPI Function Level	4.12
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Detail:

Auth		1.0/1.1/2.0/2.5/3.5/3.6/3.7/4.0/4.1/4.2/4.5/4.6/4.7/4.8/4.9/4.10/4.11/4.12
Scan to Application		2.0/2.1/2.2/3.0/3.5/3.6/3.7/4.0/4.5/4.6/4.8/4.9/4.10/4.12
PullPrint		1.0/1.1/2.0/2.5/3.5/3.6/4.0/4.5/4.6/4.7/4.8/4.9/4.10/4.12
Other A		1.0/3.5/4.0
Job Management		1.0/3.5/3.6/4.0/4.10
Setup		1.0/1.1/1.2/1.3/2.0/2.1/2.5/3.5/3.6/3.7/3.8/4.0/4.1/4.2/4.5/4.6/4.7/4.8/4.9/4.10/4.11/4.12
Link		4.5/4.6/4.7/4.8/4.9/4.10/4.11/4.12
Web Browser	Auth	1.0/1.5/3.5/3.6/3.7/4.0/4.1/4.2/4.5/4.7/4.8/4.9/4.10/4.11
	Scan to Application	1.0/1.1/3.5/3.6/3.7/4.0/4.1/4.5/4.6/4.7/4.8/4.9/4.10/4.12
	PullPrint	1.0/1.5/3.5/3.6/4.0/4.1/4.5/4.8/4.9/4.10/4.12
	ScrSvr	1.0/3.5/4.0
	Launcher	1.0/3.5/4.0/4.8
	General	4.0/4.1/4.5/4.6/4.8/4.9/4.10/4.12

7. IWS function level

IWS function Level	2.5.4
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Bulletin # 10612
Date: 03/22/17
Subject: bizhub C3851FS / C3351 Technical Training Announcement
Technical Education: 577

The Technical Education and Development Group of Konica Minolta Business Solutions U.S.A., Inc. is pleased to present Technical Training for the bizhub C3851FS and C3351. There are two paths available for training depending on previous training history.

1. Those previously trained on the C3850FS are eligible to take the “bizhub C3851FS / C3351 Technical Differences WBT” which covers the differences and enhancements to the bizhub C3851FS. These differences include:
 - The same User Interface as the Office A3 machines
 - Common Solutions platform to the Office A3 machines
 - Mobile touch area standard
 - Web Browser standard
 - Faster Warmup and first copy time
 - AU-102 is supported

This training requires approximately 2 hours for completion. Below is a direct link to the course within Konica Minolta Learning:

[bizhub C3851FS / C3351 Technical Differences WBT](#)

This technical training can also be located using the following course code in the Find Learning tile within Konica Minolta Learning: *TC3851FSDIFWBT*

2. Those new to both the C3850FS/C3851 products are eligible to take the “bizhub C3851FS / C3351 WBT Curriculum”. This training requires approximately 7 hours for completion. Below is a direct link to the curriculum within Konica Minolta Learning:

[bizhub C3851FS / C3351 WBT Curriculum](#)

This technical training can also be located using the following curriculum code in the Find Learning tile within Konica Minolta Learning: *TC3851FSWBT*

Please contact Technical Education for questions related to technical training.

Email – techtrain@kmbs.konicaminolta.us, Phone – (860)683-2402 Ext. 2198,

Website - [Technical Education Information Center](#)

Trying to find the best training path for a specific product line? Try using our [Technical Training Certification Pathfinder](#).



Bulletin # 10706
Date: 5/9/17
Subject: Startup Parts
bizhub C3351:

001

bizhub C3851FS:

001

The following table contains the recommended startup items for the bizhub C3350 and C3850 models. Multiply the quantities recommended by the number of machines in the field to aid in determining your overall stocking level.

Parts and supplies can be ordered using standard ordering procedures.

bizhub C3351, C3851FS Startup Parts List



For replacement procedures, refer to the Field Service Manuals.

Section	Description	Item No.	Qty.	Replacement Interval
Main Body				
Processing section¹	Imaging unit (C), IUP24C	A95X0HD	1	C3351: 50,000 C3851FS: 60,000
	Imaging unit (M), IUP24M	A95X0CD	1	C3351: 50,000 C3851FS: 60,000
	Imaging unit (Y), IUP24Y	A95X06D	1	C3351: 50,000 C3851FS: 60,000
	Imaging unit (K), IUP24K	A95X01D	1	C3351: 60,000 C3851FS: 70,000
	Toner cartridge (C), TNP49C	A95W430	1	12,000
	Toner cartridge (M), TNP49M	A95W330	1	12,000
	Toner cartridge (Y), TNP49Y	A95W230	1	12,000
	Toner cartridge (K), TNP49K	A95W130	1	13,000
Transfer section	Transfer belt unit ²	A4Y5WY4	1	100,000
	2 nd transfer roller ²	A4Y5WY3	1	100,000
	Waste toner bottle, WB-P05 ¹	A4Y5WY1	1	36,000
Paper feed section^{2,3}	Tray 1 feed roller	4138303202	1	300,000
	Tray 1 separation roller	A92EV62001	1	300,000
	Manual tray feed roller	4138303202	1	300,000
	Manual tray separation roller	A92EV62001	1	300,000
Fusing section¹	Fusing unit	A4Y5W12	1	135,000
Finishing section^{1,4}	Staples, for FS-P03: SK-501	A6Y8WY1	1	3,000
	Staples, for CS-1: SK-602	14YK	1	15,000

1. Supply item. Replacement intervals are approximate, based upon usage characteristics including copy/print density and coverage.

2. Replace all rollers in this group at the same time.

3. Items intended for replacement by technician. All other items are intended for consumer replacement.

4. SK-501: 3 boxes of 1,000; SK-602: 3 boxes of 5,000.



Product Name: TNP49K

Prepared Date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: TNP49K

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other HazardsDust explosion (like most finely divided organic powders).



Product Name: TNP49K

Prepared Date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Styrene acrylic resin	+++	70-80
Wax	+++	1-20
Carbon black	1333-86-4	1-10
Wax-2	+++	1-10
Amorphous silica	7631-86-9	1-10
Titanium dioxide	13463-67-7	< 1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Carbon black

CAS No.: 1333-86-4

EINECS-No.: 215-609-9

NTP(USA): Not listed

California Proposition 65(USA): Listed

Symbol(EC): Not listed

DFG-MAK(GER): III 3B

REACH Registration number: 01-2119384822-32-XXXX

IARC Monographs: Group 2B

H code(EC): Not listed

Chemical Name: Titanium dioxide

CAS No.: 13463-67-7

NTP(USA): Not listed

Symbol(EC): Not listed

EINECS-No.: 236-675-5

IARC Monographs: Group 2B

H code(EC): Not listed

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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).



Product Name: TNP49K

Prepared Date: 24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters (As total dust)

ACGIH-TLV (USA): 10mg/m³ (Inhalable particles), 3.0 mg/m³ (Respirable particles)OSHA-PEL (USA): 15mg/m³ (Total dusts), 5.0 mg/m³ (Respirable fraction)DFG-MAK (GER): 4mg/m³ (Inhalable fraction), 1.5mg/m³ (Respirable fraction)Safe Work Australia-TWA: 10mg/m³

Control Parameters (As Ingredients: Carbon black)

ACGIH-TLV (USA): 3mg/m³OSHA Z-Table (USA): 3.5mg/m³Safe Work Australia-TWA: 3mg/m³

Control Parameters (As Ingredients: Titanium dioxide)

ACGIH-TLV(USA): 10mg/m³OSHA Z-Tables(USA): 15mg/m³Safe Work Australia-TWA: 10mg/m³

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.



Product Name: TNP49K

Prepared Date:24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Black

Form: Powder (mean dia. is 5-10 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C)/[F]:

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

1.2

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, Nox and smoke.

Hazardous Polymerization:

Will not occur.



Product Name : TNP49K

Prepared Date : 24-Jun-2016

Revised Date :

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion(oral), LD50(mg/kg): >2000(Rat) *

Dermal, LD50(mg/kg): No data available

Inhalation, LC50(mg/l): >5.13(Rat, 4hour) *

(This was the highest attainable concentration.)

Eye irritation: Practically None irritant(Rabbit) *

Skin irritation: None irritant(Rabbit) *

Skin sensitizer: Non sensitizer (Mouse) *

Local Effects: see Chronic Toxicity or Long term Toxicity

Chronic Toxicity or Long Term Toxicity:

In a two-year inhalation study of chronic toxicity and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1mg/m³), the most relevant level to potential human exposures. A minimal to mild degree of fibrosis was noted in 22% of the animals at the middle exposure level (4mg/m³), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level(16mg/m³). The lung changes observed in the higher exposure groups are interpreted in terms of "lung overloading", a series of generic responses to the presence of large quantities of respirable, insoluble and relatively benign dusts retained for extended time periods in the lungs. Lung tumor frequency was unchanged among rats exposed to toner at the three exposure levels, and for air-only control rats.

Carcinogenicity

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.

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are 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. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

Mutagenicity: Negative(AMES test)

Teratogenicity: No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity: No data available

Mobility: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available



Product Name: TNP49K

Prepared Date:24-Jun-2016

Revised Date:

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION**US Information**

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

Ingredient carbon black subject to California Proposition 65 is bound in polymer-matrices so that warnings are not required.

CERCLA(Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: TNP49K

Prepared Date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.NIOSH CURRENT INTELLIGENCE BULLETIN :Evaluation of Health Hazard and Recommendation
for Occupational Exposure to Titanium Dioxide :DRAFT

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: TNP49Y

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: TNP49Y

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).



Product Name: TNP49Y

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Styrene acrylic resin	+++	80-90
Wax	+++	1-10
Organic pigment	+++	1-10
Amorphous silica	7631-86-9	1-10
Titanium dioxide	13463-67-7	<1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Titanium dioxide

CAS No.: 13463-67-7

NTP(USA): Not listed

Symbol(EC): Not listed

EINECS-No.: 236-675-5

IARC Monographs: Group 2B

H code(EC): Not listed

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURESSuitable Extinguishing Media: CO₂, water spray, foam and dry chemical

Extinguishing Media to Avoid: Full water jet

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: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.



Product Name: TNP49Y

Prepared date:24-Jun-2016

Revised Date:

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Titanium dioxide)

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

Safe Work Australia-TWA: 10mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Yellow

Form: Powder (mean dia. is 5-10 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

1.2

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable



Product Name: TNP49Y

Prepared date: 24-Jun-2016

Revised Date:

10. STABILITY AND REACTIVITY

Reactivity:	None.
Stability:	Stable except above 200C(392F).
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, CO ₂ , Nox and smoke.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion(oral), LD50(mg/kg):	>2000 (Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	>5.11 (Rat, 4hour) *(This was the highest attainable concentration.)
Eye irritation:	Minimal irritant (Rabbit) *
Skin irritation:	None irritant (Rabbit) *
Skin sensitizer:	Non sensitizer (Mouse) *

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are 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. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

Mutagenicity:	Negative (AMES test)
Teratogenicity:	No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available



Product Name: TNP49Y

Prepared date:24-Jun-2016

Revised Date:

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION**US Information**

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA(Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: TNP49Y

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.NIOSH CURRENT INTELLIGENCE BULLETIN :Evaluation of Health Hazard and Recommendation
for Occupational Exposure to Titanium Dioxide :DRAFT

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: TNP49M

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: TNP49M

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).

Product Name: TNP49M

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Styrene acrylic resin	+++	70-80
Ferrite Iron oxide	1309-37-1	1-10
. Manganese oxide	1344-43-0	1-10
Wax	+++	1-10
Organic pigment 1	+++	1-10
Organic pigment 2	+++	1-10
Amorphous silica	7631-86-9	1-10
Titanium dioxide	13463-67-7	<1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Titanium dioxide

CAS No.: 13463-67-7

NTP(USA): Not listed

Symbol(EC): Not listed

EINECS-No.: 236-675-5

IARC Monographs: Group 2B

H code(EC): Not listed

Chemical Name: Manganese oxide

CAS No.: 1344-43-0

Symbol(EC): Not listed

EINECS-No.: 215-695-8

H code(EC): Not listed

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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).

Product Name: TNP49M

Prepared date:24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Titanium dioxide)

ACGIH-TLV(USA): 10mg/m3

OSHA Z-Tables(USA): 15mg/m3

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Manganese oxide)

ACGIH-TLV(USA): 0.1mg/m3(Mn;Inhalable Fraction)

0.02mg/m3(Mn;Respirable Fraction)

OSHA Z-Tables(USA): ceiling 5mg/m3

Safe Work Australia-TWA: 1mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

Product Name: TNP49M

Prepared date: 24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Red

Form: Powder (mean dia. is 5-10 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around 105-115°C /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

1.2

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, NO_x and smoke.

Hazardous Polymerization:

Will not occur.

Product Name: TNP49M

Prepared date:24-Jun-2016

Revised Date:

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion(oral), LD50(mg/kg):	>2000 (Rat)
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	>5.06 (Rat,4hour)(This was the highest attainable concentration.)
Eye irritation:	Mild irritant (Rabbit)
Skin irritation:	None irritant (Rabbit)
Skin sensitizer:	Non sensitizer (Mouse)

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are 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, dose not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

Mutagenicity: Negative (AMES test)

Teratogenicity: No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

Product Name: TNP49M

Prepared date: 24-Jun-2016

Revised Date:

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

• Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

• Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

• Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

• Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

• Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.

Product Name: TNP49M

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191

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.

NIOSH CURRENT INTELLIGENCE BULLETIN :Evaluation of Health Hazard and Recommendation
for Occupational Exposure to Titanium Dioxide :DRAFT

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: TNP49C

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: TNP49C

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).

Product Name: TNP49C

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Styrene acrylic resin	+++	80-90
Wax	+++	1-10
Organic pigment	147-14-8	1-10
Amorphous silica	7631-86-9	1-10
Titanium dioxide	13463-67-7	<1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Titanium dioxide

CAS No.: 13463-67-7

NTP(USA): Not listed

Symbol(EC): Not listed

EINECS-No.: 236-675-5

IARC Monographs: Group 2B

H code(EC): Not listed

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

Product Name: TNP49C

Prepared date:24-Jun-2016

Revised Date:

7. HANDLING AND STORAGE**Handling**

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Measures**

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Titanium dioxide)

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

Safe Work Australia-TWA: 10mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Physical State: Solid

Color: Cyan

Form: Powder (mean dia. is 5-10 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

1.2

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:Not applicable

Product Name: TNP49C

Prepared date: 24-Jun-2016

Revised Date:

10. STABILITY AND REACTIVITY

Reactivity:	None.
Stability:	Stable except above 200C(392F).
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, CO ₂ , Nox and smoke.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion(oral), LD50(mg/kg):	>2000 (Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	>5.12 (Rat, 4hour) *(This was the highest attainable concentration.)
Eye irritation:	Minimal irritant (Rabbit) *
Skin irritation:	None irritant (Rabbit) *
Skin sensitizer:	Non sensitizer (Mouse) *

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

The IARC reevaluated titanium dioxide as a Group 2B carcinogen (possible human carcinogen). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are 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. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

Mutagenicity:	Negative (AMES test)
Teratogenicity:	No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

Product Name: TNP49C

Prepared date: 24-Jun-2016

Revised Date:

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.

Product Name: TNP49C

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191

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.

NIOSH CURRENT INTELLIGENCE BULLETIN :Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide :DRAFT

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: IUP24K

Prepared Date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: IUP24K

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).



Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Ferrite Iron oxide	1309-37-1	60-70
. Manganese oxide	1344-43-0	15-25
. Magnesium oxide	1309-48-4	1-10
Styrene-acrylic resin	+++	1-10
Acryl resin	+++	1-10
Carbon black	1333-86-4	< 1
Amorphous silica	7631-86-9	< 1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Carbon black

CAS No.: 1333-86-4

EINECS-No.: 215-609-9

NTP(USA): Not listed

California Proposition 65(USA): Listed

Symbol(EC): Not listed

DFG-MAK(GER): III 3B

REACH Registration number: 01-2119384822-32-XXXX

IARC Monographs: Group 2B

H code(EC): Not listed

Chemical Name: Manganese oxide

CAS No.: 1344-43-0

Symbol(EC): Not listed

EINECS-No.: 215-695-8

H code(EC): Not listed

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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).

Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE**Handling**

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Measures**

Ventilation: None required with intended use.

Control Parameters (As total dust)ACGIH-TLV (USA): 10mg/m³ (Inhalable particles), 3.0 mg/m³ (Respirable particles)OSHA-PEL (USA): 15mg/m³ (Total dusts), 5.0 mg/m³ (Respirable fraction)DFG-MAK (GER): 4mg/m³ (Inhalable fraction), 1.5mg/m³ (Respirable fraction)Safe Work Australia-TWA: 10mg/m³**Control Parameters (As Ingredients: Carbon black)**ACGIH-TLV (USA): 3mg/m³OSHA Z-Table (USA): 3.5mg/m³Safe Work Australia-TWA: 3mg/m³**Control Parameters (As Ingredients: Manganese oxide)**ACGIH-TLV(USA): 0.1mg/m³(Mn;Inhalable Fraction)0.02mg/m³(Mn;Respirable Fraction)OSHA Z-Tables(USA): ceiling 5mg/m³Safe Work Australia-TWA: 1mg/m³(Mn)**Personal Protective Equipment**

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.



Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Black

Form: Powder (mean dia. is 30-40 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C)/[F]:

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

5

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, and smoke.

Hazardous Polymerization:

Will not occur.

Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

11. TOXICOLOGICAL INFORMATION**Acute Toxicity:**

Ingestion(oral), LD50(mg/kg):	>2000(Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	No data available
Eye irritation:	No data available
Skin irritation:	No data available

Skin sensitizer: No data available

Local Effects: see Chronic Toxicity or Long term Toxicity

Chronic Toxicity or Long Term Toxicity:

In a two-year inhalation study of chronic toxicity and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1mg/m³), the most relevant level to potential human exposures. A minimal to mild degree of fibrosis was noted in 22% of the animals at the middle exposure level (4mg/m³), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level(16mg/m³). The lung changes observed in the higher exposure groups are interpreted in terms of "lung overloading", a series of generic responses to the presence of large quantities of respirable, insoluble and relatively benign dusts retained for extended time periods in the lungs. Lung tumor frequency was unchanged among rats exposed to toner at the three exposure levels, and for air-only control rats.

Carcinogenicity

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.

Mutagenicity: Negative *(AMES test)

Teratogenicity: No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

Ingredient carbon black subject to California Proposition 65 is bound in polymer-matrices so that warnings are not required.

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable
- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable
- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable
- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:
 - Annex XIV- List of Substances Subject To Authorization: Not applicable
 - Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: IUP24K

Prepared Date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: IUP24Y

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: IUP24Y

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).



Product Name: IUP24Y

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Ferrite Iron oxide	1309-37-1	60-70
. Manganese oxide	1344-43-0	15-25
. Magnesium oxide	1309-48-4	1-10
Styrene-acrylic resin	+++	1-10
Acryl resin	+++	1-10
Amorphous silica	7631-86-9	< 1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Manganese oxide

CAS No.: 1344-43-0

EINECS-No.: 215-695-8

Symbol(EC): Not listed

H code(EC): Not listed

4. FIRST-AID MEASURES

- Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.
- Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.
- Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.
- Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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).



Product Name: IUP24Y

Prepared date:24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE**Handling**

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Measures**

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Manganese oxide)

ACGIH-TLV(USA): 0.1mg/m3(Mn;Inhalable Fraction)

0.02mg/m3(Mn;Respirable Fraction)

OSHA Z-Tables(USA):ceiling 5mg/m3

Safe Work Australia-TWA: 1mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.



Product Name: IUP24Y

Prepared date: 24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Yellow

Form: Powder (mean dia. is 30-40 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

5

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, and smoke.

Hazardous Polymerization:

Will not occur.



Product Name: IUP24Y

Prepared date:24-Jun-2016

Revised Date:

11. TOXICOLOGICAL INFORMATION**Acute Toxicity:**

Ingestion(oral), LD50(mg/kg):	>2000 (Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	No data available
Eye irritation:	No data available
Skin irritation:	No data available
Skin sensitizer:	No data available

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

IARC Monographs:	Not listed
NTP(USA):	Not listed
OSHA Regulated(USA):	Not listed
Mutagenicity:	Negative * (AMES test)
Teratogenicity:	No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.



Product Name: IUP24Y

Prepared date: 24-Jun-2016

Revised Date:

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: IUP24Y

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: IUP24M

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: IUP24M

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).



Product Name: IUP24M

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Ferrite Iron oxide	1309-37-1	60-70
. Manganese oxide	1344-43-0	15-25
. Magnesium oxide	1309-48-4	1-10
Styrene-acrylic resin	+++	1-10
Acryl resin	+++	1-10
Amorphous silica	7631-86-9	<1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Manganese oxide

CAS No.: 1344-43-0

EINECS-No.: 215-695-8

Symbol(EC): Not listed

H code(EC): Not listed

4. FIRST-AID MEASURES

- Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.
- Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.
- Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.
- Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

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

Extinguishing Media to Avoid: Full water jet

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).



Product Name: IUP24M

Prepared date:24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Manganese oxide)

ACGIH-TLV(USA): 0.1mg/m3(Mn;Inhalable Fraction)

0.02mg/m3(Mn;Respirable Fraction)

OSHA Z-Tables(USA):ceiling 5mg/m3

Safe Work Australia-TWA: 1mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.



Product Name: IUP24M

Prepared date: 24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Physical State: Solid

Color: Red

Form: Powder (mean dia. is 30-40 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

5

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, and smoke.

Hazardous Polymerization:

Will not occur.



Product Name: IUP24M

Prepared date:24-Jun-2016

Revised Date:

11. TOXICOLOGICAL INFORMATION**Acute Toxicity:**

Ingestion(oral), LD50(mg/kg):	>2000 (Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	No data available
Eye irritation:	No data available
Skin irritation:	No data available

Skin sensitizer: No data available

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

IARC Monographs:	Not listed
NTP(USA):	Not listed
OSHA Regulated(USA):	Not listed

Mutagenicity: Negative * (AMES test)

Teratogenicity: No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.



Product Name: IUP24M

Prepared date: 24-Jun-2016

Revised Date:

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: IUP24M

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.



Product Name: IUP24C

Prepared date:24-Jun-2016

Revised Date:

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: IUP24C

used for: bizhub C3351/C3851FS

Supplier Identification:

Konica Minolta Business Solutions U.S.A., Inc.

100 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

Telephone: 201-825-4000

Emergency Telephone No.

CHEMTREC

Telephone: 1-800-424-9300

2. HAZARDS IDENTIFICATION**Regulation (EC) No 1272/2008**

Classification: Not classified as dangerous.

Hazard Communication Standard (USA)

Classification: Not classified as dangerous.

LABEL ELEMENTS

Precautionary pictograms: ---

Signal word: ---

Hazard Statement: ---

Precautionary Statements: ---

Other Hazards

Dust explosion (like most finely divided organic powders).



Product Name: IUP24C

Prepared date:24-Jun-2016

Revised Date:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance []

Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Ferrite Iron oxide	1309-37-1	65-75
. Manganese oxide	1344-43-0	5-15
. Magnesium oxide	1309-48-4	5-15
Styrene-acrylic resin	+++	1-10
Acryl resin	+++	1-10
Organic pigment	147-14-8	< 1
Amorphous silica	7631-86-9	< 1

+++ : Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Manganese oxide

CAS No.: 1344-43-0

EINECS-No.: 215-695-8

Symbol(EC): Not listed

H code(EC): Not listed

4. FIRST-AID MEASURES

- Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.
- Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.
- Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.
- Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURESSuitable Extinguishing Media: CO₂, water spray, foam and dry chemical

Extinguishing Media to Avoid: Full water jet

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).



Product Name: IUP24C

Prepared date:24-Jun-2016

Revised Date:

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

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

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA): 10mg/m3 (Inhalable particles), 3.0 mg/m3 (Respirable particles)

OSHA-PEL(USA): 15mg/m3 (Total dusts), 5.0 mg/m3 (Respirable fraction)

DFG-MAK(GER): 4mg/m3 (Inhalable fraction), 1.5mg/m3 (Respirable fraction)

Safe Work Australia-TWA: 10mg/m3

Control Parameters (As Ingredients: Manganese oxide)

ACGIH-TLV(USA): 0.1mg/m3(Mn;Inhalable Fraction)

0.02mg/m3(Mn;Respirable Fraction)

OSHA Z-Tables(USA):ceiling 5mg/m3

Safe Work Australia-TWA: 1mg/m3

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.



Product Name: IUP24C

Prepared date: 24-Jun-2016

Revised Date:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid

Color: Cyan

Form: Powder (mean dia. is 30-40 um by volume)

Odor:

Almost odorless

PH

Not applicable

Boiling Point(°C):

Not applicable

Melting Point(°C):

Around No data available /[] (Softening Point)

Flash Point(°C):

Not applicable

Auto-Ignition Temperature(°C):

No data available

Upper/ lower flammability or explosive limits

No data available

Explosion Properties:

No data available

Evaporation rate:

No data available

Vapor Pressure:

Not applicable

Vapor density:

Not applicable

Specific Gravity:

Solubility:

Insoluble in water.

Partition Coefficient, n-Octanol/Water:

Not applicable

Decomposition temperature:

Not applicable

10. STABILITY AND REACTIVITY

Reactivity:

None.

Stability:

Stable except above 200C(392F).

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, and smoke.

Hazardous Polymerization:

Will not occur.



Product Name: IUP24C

Prepared date:24-Jun-2016

Revised Date:

11. TOXICOLOGICAL INFORMATION**Acute Toxicity:**

Ingestion(oral), LD50(mg/kg):	>2000 (Rat) *
Dermal, LD50(mg/kg):	No data available
Inhalation, LC50(mg/l):	No data available
Eye irritation:	No data available
Skin irritation:	No data available

Skin sensitizer: No data available

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/m³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle(4mg/m³) exposure group. But no pulmonary change was reported in the lowest(1mg/m³) exposure group, the most relevant level to potential human exposures.

Carcinogenicity

IARC Monographs:	Not listed
NTP(USA):	Not listed
OSHA Regulated(USA):	Not listed

Mutagenicity: Negative * (AMES test)

Teratogenicity: No data available

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

12. ECOLOGICAL INFORMATION

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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.



Product Name: IUP24C

Prepared date: 24-Jun-2016

Revised Date:

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None

Further information: Not a dangerous good under IATA or IMDG.

Hazchem code (Austl.): None

15. REGULATORY INFORMATION

US Information

TSCA (Toxic Substances Control Act):

All chemical substances in this product comply with all applicable rules or order under TSCA.

California Proposition 65:

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

CERCLA (Comprehensive Environmental Response Compensation and Liability Act) :

None.

SARA Title III (Superfund Amendments and Reauthorization Act) 302 Extreme Hazardous Substance :

None.

311/312 Hazard Categories :

None.

313 Reportable Ingredients :

None.

EU Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- Regulation (EC) No 2037/2000 of the European Parliament and of the Council on Substances That Deplete the Ozone Layer: Not applicable

- Regulation (EC) No 850/2004 of the European Parliament and of the Council on Persistent Organic Pollutants and Amending Directive 79/117/EEC (POPs): Not applicable

- Regulation (EU) No 649/2012 of the European Parliament and of the Council on Concerning the Export and Import of Dangerous Chemicals (PIC): Not applicable

- Directive 2012/18/EU of the European Parliament and of the Council on the Control of Major-Accident Hazards Involving Dangerous Substances, Amending and Subsequently Repealing Council Directive 96/82/EC, (Seveso III): Not applicable

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council:

- Annex XIV- List of Substances Subject To Authorization: Not applicable
- Annex XVII- Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: Not applicable

For this product a chemical safety assessment was not carried out.



Product Name: IUP24C

Prepared date: 24-Jun-2016

Revised Date:

16. OTHER INFORMATION

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

Explanation of term: IARC 2B means "possible human carcinogen".

Abbreviations:

ACGIH-TWA: Threshold Limit Value of American Conference of Government Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

DFG-MAK: Maximale Arbeitsplatz-Konzentration by Deutsche Forschungsgemeinschaft

DGR: Dangerous Goods Regulations

EINECS: European Inventory of Existing Commercial Chemical Substances

H-Code: Hazard Code

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NTP: National Toxicology Program

OEL: Occupational exposure limit

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

vPvB: very Persistent and very Bioaccumulative

Revision Information: Regular revision on revised date.

Literature References:

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans,
Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191H.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.

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.

Annex B1 - Product environmental attributes Imaging equipment

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	<i>Konica Minolta</i>	Logo  KONICA MINOLTA
Company name *	<i>Konica Minolta Inc.</i>	
Contact information * e-mail address		
Internet site *	<i>http://www.konicaminolta.com/index.html</i>	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	<i>Multifunction Printer</i>
Commercial name *	<i>bizhub</i>
Model number *	<i>C3851FS</i>
Issue date *	<i>22 December 2016</i>
Intended market *	☐ Global ☐ Europe ☒ Asia, Pacific & Japan ☒ Americas ☐ Other
Additional information	<i>version 1.0</i>

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B1

Annex B1 reflects Product environmental attributes relevant for Imaging products. The following items from the ECMA-370 Main body are not shown in the template:

P9.1 PTEC, ETEC and display resolution
P12.1-P12.2 Ergonomic requirements.

Model number *	bizhub C3851FS	Logo	
Issue date *	22 December 2016		

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do comply with the current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 µg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):	☐	☐	☒
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☐	☐	☐
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☒	☐	☐
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☐
P3	Conformity verification & Eco design (ErP)			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address):	☐	☐	☒
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference).	☐	☐	☒
	Required information is; ☐ given in item P15 or added to this document,	☐	☐	☒
	☐ available at (add URL):			
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0,01% (see legal reference and NOTE B1).	☒	☐	☐
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0,1% by weight (see legal reference).	☒	☐	☐
P4.3*	If the ink/toner formulation/preparation is classified as hazardous or contains a substance for which there are Community workplace exposure limits, the product/packaging is adequately labeled according to applicable regulations and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	☒	☐	☐
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☐	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	bizhub C3851FS	Logo	
Issue date *	22 December 2016		

Product environmental attributes - Market requirements (See General NOTE GN below)		Requirement met		
- Environmental conscious design		Yes	No	n.a.
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.			
P7	Design			
	Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9.	Spare parts are available after end of production for: 7 years			☐
P7.10	Service is available after end of production for: 7 years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: PC+PET Material type: PC+ABS Material type: PS-HI			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☐	☒	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☐ are low halogen as defined in IEC 61249-2-21. (See NOTE B2)	☐	☒	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: FR(40)	☒	☐	☐
P7.17	<u>Alt. 1:</u> Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐ , TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: _____, CAS #: _____ <u>Alt. 2:</u> Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(17)	☐	☐	☐
P7.18	<u>Alt. 1:</u> Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: _____, CAS #: _____ (See NOTE B4) 2. Chemical name: _____, CAS #: _____ 3. Chemical name: _____, CAS #: _____ <u>Alt. 2:</u> Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: FR(17), FR(40)	☐	☐	☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; _____ and Hazard statements: _____ The source(s) for these classifications is/are found at (add URL(s)): _____, (See NOTE B5)	☐	☐	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is 10 %. or b) The weight of recycled material is _____ g.	☒	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	bizhub C3851FS			Logo	
Issue date *	22 December 2016				

Product environmental attributes - Market requirements (continued)					Requirement met		
Item					Yes	No	n.a.
Material and substance requirements (continued)							
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is 0.02 %. or b) The weight of the biobased plastic material is g.				☒	☐	☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg				☒	☐	☐
P8 Batteries							
P8.1*	Battery chemical composition: Lithium Manganese dioxide					☐	
P9 Energy consumption (See NOTE B8)							
P9.1 For the product the following power levels or energy consumptions are reported:							
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for modes and test method *	energy		
Sleep mode for ENERGY STAR® Operational Mode (OM) products	W	W	W		☒		
Standby/off mode for ENERGY STAR Operational Mode (OM) products	W	W	W		☒		
TEC value for ENERGY STAR TEC products (TEC= Typical Energy)	kWh/week	2.2 kWh/week	2.0 kWh/week	Energy Star	☐		
Maximum	W	1133 W	1363 W	RAL UZ-171	☐		
Active (Printing)	W	570 W	540 W	RAL UZ-171	☐		
Ready	W	83 W	82 W	RAL UZ-171	☐		
Low power	W	81 W	78 W	RAL UZ-171	☐		
Sleep	W	0.8 W	0.5 W	RAL UZ-171	☐		
Plug-in off	W	<0.01 W	<0.01 W	RAL UZ-171	☐		
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :					☒		
Print/Scan Speed * : 38 images per minute					☐		
Default time to enter energy save mode: minutes					☐		
P9.2*	Information about the energy save function is provided with the product.				☒	☐	☐
P10 Emissions							
Noise emission – Declared according to ISO 9296 (See NOTE B9)							
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)				
	Idle	* Ready	* 4.0				
	Operation	* Printing (BW/ Colour)	* 7.0 / 7.0				
	Other mode						
Measured according to: ☒ ISO 7779 ☐ ECMA-74 ☐ Other (only if not covered by ECMA-74)							

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic.

NOTE B8 A Guidance document on Energy Efficiency is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B9 A Guidance document on Acoustic Noise is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

Model number *	bizhub C3851FS		Logo	
Issue date *	22 December 2016			

Product environmental attributes - Market requirements (continued)			Requirement met		
Item			Yes	No	n.a.
Chemical emissions from printing products (See NOTE B10)					
P10.2*	Test performed according to ECMA-328 Determination of Chemical Emission Rates from Electronic Equipment (ISO/IEC 28360) ☐ , other specify: RAL UZ-171		☒	☐	☐
P10.3	Typical emission rate (operation phase) is (mg/h): Electrophotographic devices: Ozone 0.07 / 0.12 (BW / Colour) Dust 1.3 / 1.5 Styrene 0.33 / 0.50 Benzene 0.01 / 0.01 TVOC 4.8 / 8.7 Ink devices: Dust Styrene Benzene TVOC Note: compliance with maximum emission rates in eco labels to be declared in P14.		☒	☐	☐
P11 Consumable materials for printing products					
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).		☒	☐	☐
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN 12281.		☒	☐	☐
P11.3*	2-sided (duplex) printing/copying is an integrated product function.		☒	☐	☐
P11.4*	The product is delivered to end-user with default auto-duplex enabled.		☒	☐	☐
P13 Packaging and documentation					
P13.1*	Product packaging material type(s): wood weight (kg): 4.80 Product packaging material type(s): paper weight (kg): 3.11 Product packaging material type(s): foamed PS weight (kg): 0.47 Product packaging material type(s): PE weight (kg): 0.14 Product packaging material type(s): foamed PE weight (kg): 0.06 Product packaging material type(s): foamed PP weight (kg): <0.01 Product packaging material type(s): weight (kg): Product packaging material type(s): weight (kg): Product packaging material type(s): weight (kg):				
P13.2*	Product plastic primary packaging is free from PVC.		☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 70 %				☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☒ , Paper ☒ , Other ☐				☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify: Totally chlorine-free Elemental chlorine-free Processed chlorine-free		☒	☐	
P14 Voluntary programs:					
P14.1	The product meets the requirements of the following voluntary program(s): ENERGY STAR® Criteria version: ver.2 Date: 31.1.2014 Product category: MFDs Eco-label: Blue Angel Criteria version: RAL UZ-171 Date: July 2012 Product category: Multi Function Device Eco-label: Criteria version: Date: Product category:				
P15 Additional information (See NOTE B11)					
P15.1	Sound Pressure Level (LpAm) : Idle= 26 dB, Operation= 55 / 55 dB				
BTU (230v)	40.6 BTU/h The figure is based on the TEC value of 2.0 kWh/week (=24h x 7days)				
BTU (115v)	44.7 BTU/h The figure is based on the TEC value of 2.2 kWh/week (=24h x 7days)				

NOTE B10 A Guidance document on Chemical Emissions is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B11 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B1

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1, P4.1
(EC) 1907/2006(REACH, Annex XVII)	P1.2, P1.4, P1.6, P1.7, P4.2
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000, (Marketing and use of Ozone layer depleting substances)	P1.3, 5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
"REACH" Regulation (1907/2006), annex VII	P1.10
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2.3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) 1907/2006 (REACH Regulation), Article 31, annex II)	P4.3
Regulation (EC) 1272/2008 (CLP Regulation)	P4.3, P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Annex B1 - Product environmental attributes Imaging equipment

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	<i>Konica Minolta</i>	Logo  KONICA MINOLTA
Company name *	<i>Konica Minolta Inc.</i>	
Contact information * e-mail address		
Internet site *	<i>http://www.konicaminolta.com/index.html</i>	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	<i>Multifunction Printer</i>
Commercial name *	<i>bizhub</i>
Model number *	<i>C3351</i>
Issue date *	<i>22 December 2016</i>
Intended market *	☐ Global ☐ Europe ☒ Asia, Pacific & Japan ☒ Americas ☐ Other
Additional information	<i>version 1.0</i>

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B1

Annex B1 reflects Product environmental attributes relevant for Imaging products. The following items from the ECMA-370 Main body are not shown in the template:

P9.1 PTEC, ETEC and display resolution
 P12.1-P12.2 Ergonomic requirements.

Model number *	bizhub C3351	Logo	
Issue date *	22 December 2016		

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do comply with the current European RoHS Directive. (See legal reference and NOTE B1)	☒	☐	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	☒	☐	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	☒	☐	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	☒	☐	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 µg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	☒	☐	☐
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):	☐	☐	☒
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	☐	☐	☐
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	☒	☐	☐
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	☐	☐	☐
P3	Conformity verification & Eco design (ErP)			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address):	☐	☐	☒
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference). Required information is; ☐ given in item P15 or added to this document, ☐ available at (add URL):	☐	☐	☒
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0,01% (see legal reference and NOTE B1).	☒	☐	☐
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0,1% by weight (see legal reference).	☒	☐	☐
P4.3*	If the ink/toner formulation/preparation is classified as hazardous or contains a substance for which there are Community workplace exposure limits, the product/packaging is adequately labeled according to applicable regulations and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	☒	☐	☐
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	☒	☐	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	☒	☐	☐
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	☒	☐	☐
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	☐	☐	☐

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	bizhub C3351	Logo	
Issue date *	22 December 2016		

Product environmental attributes - Market requirements (See General NOTE GN below)		Requirement met		
- Environmental conscious design		Yes	No	n.a.
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.			
P7	Design			
	Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable	☒	☐	☐
P7.2*	Plastic materials in covers/housing have no surface coating.	☒	☐	☐
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	☒	☐	☐
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	☒	☐	☐
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	☒	☐	☐
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	☒	☐	☐
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	☒	☐	☐
P7.8*	Upgrading can be done using commonly available tools	☒	☐	☐
P7.9.	Spare parts are available after end of production for: 7 years			☐
P7.10	Service is available after end of production for: 7 years			☐
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: PC+PET Material type: PC+ABS Material type: PS-HI			
P7.12	Insulation materials of external electrical cables are PVC free.	☐	☒	☐
P7.13	Insulation materials of internal electrical cables are PVC free.	☐	☒	☐
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	☒	☐	☐
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ☐ are low halogen as defined in IEC 61249-2-21. (See NOTE B2)	☐	☒	☐
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: FR(40)	☒	☐	☐
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) ☐ , TBBPA (reactive) ☐ (See NOTE B3), Other; chemical name: , CAS #: Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(17)	☐	☐	☐
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: " Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: FR(17), FR(40)	☐	☐	☐
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): , (See NOTE B5)	☐	☐	☐
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is 10 %. or b) The weight of recycled material is g.	☒	☐	☐

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	bizhub C3351			Logo	
Issue date *	22 December 2016				

Product environmental attributes - Market requirements (continued)					Requirement met		
Item					Yes	No	n.a.
Material and substance requirements (continued)							
P7.21*	Biobased plastic material content is used in the product (See NOTE B7): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is 0.02 %. or b) The weight of the biobased plastic material is g.				☒	☐	☐
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp. If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg				☒	☐	☐
P8 Batteries							
P8.1*	Battery chemical composition: Lithium Manganese dioxide					☐	
P9 Energy consumption (See NOTE B8)							
P9.1 For the product the following power levels or energy consumptions are reported:							
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for modes and test method *	energy		
Sleep mode for ENERGY STAR® Operational Mode (OM) products	W	W	W		☒		
Standby/off mode for ENERGY STAR Operational Mode (OM) products	W	W	W		☒		
TEC value for ENERGY STAR TEC products	kWh/week	2.0 kWh/week	1.7 kWh/week	Energy Star	☐		
(TEC= Typical Energy							
Maximum	W	1124 W	1378 W	RAL UZ-171	☐		
Active (Printing)	W	540 W	510 W	RAL UZ-171	☐		
Ready	W	82 W	77 W	RAL UZ-171	☐		
Low power	W	80 W	77 W	RAL UZ-171	☐		
Sleep	W	0.7 W	0.5 W	RAL UZ-171	☐		
Plug-in off	W	<0.01 W	<0.01 W	RAL UZ-171	☐		
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :					☒		
Print/Scan Speed * : 33 images per minute					☐		
Default time to enter energy save mode: minutes					☐		
P9.2*	Information about the energy save function is provided with the product.				☒	☐	☐
P10 Emissions							
Noise emission – Declared according to ISO 9296 (See NOTE B9)							
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)				
	Idle	* Ready	* 4.0				
	Operation	* Printing (BW/ Colour)	* 6.9 / 6.9				
	Other mode						
Measured according to: ☒ ISO 7779 ☐ ECMA-74							
☐ Other (only if not covered by ECMA-74)							

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic.

NOTE B8 A Guidance document on Energy Efficiency is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B9 A Guidance document on Acoustic Noise is available; see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

Model number *	bizhub C3351		Logo	
Issue date *	22 December 2016			

Product environmental attributes - Market requirements (continued)			Requirement met		
Item			Yes	No	n.a.
Chemical emissions from printing products (See NOTE B10)					
P10.2*	Test performed according to ECMA-328 Determination of Chemical Emission Rates from Electronic Equipment (ISO/IEC 28360) ☐ , other specify: RAL UZ-171		☒	☐	☐
P10.3	Typical emission rate (operation phase) is (mg/h): Electrophotographic devices: Ozone 0.07 / 0.12 (BW / Colour) Dust 1.3 / 1.5 Styrene 0.33 / 0.50 Benzene 0.01 / 0.01 TVOC 4.8 / 8.7 Ink devices: Dust Styrene Benzene TVOC Note: compliance with maximum emission rates in eco labels to be declared in P14.		☒	☐	☐
P11 Consumable materials for printing products					
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).		☒	☐	☐
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN 12281.		☒	☐	☐
P11.3*	2-sided (duplex) printing/copying is an integrated product function.		☒	☐	☐
P11.4*	The product is delivered to end-user with default auto-duplex enabled.		☒	☐	☐
P13 Packaging and documentation					
P13.1*	Product packaging material type(s): wood weight (kg): 4.80 Product packaging material type(s): paper weight (kg): 3.11 Product packaging material type(s): foamed PS weight (kg): 0.47 Product packaging material type(s): PE weight (kg): 0.14 Product packaging material type(s): foamed PE weight (kg): 0.06 Product packaging material type(s): foamed PP weight (kg): <0.01 Product packaging material type(s): weight (kg): Product packaging material type(s): weight (kg): Product packaging material type(s): weight (kg):				
P13.2*	Product plastic primary packaging is free from PVC.		☒	☐	☐
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 70 %				☐
P13.4*	Specify media for user and product documentation (tick box): Electronic ☒ Paper ☒ Other ☐				☐
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify: Totally chlorine-free Elemental chlorine-free Processed chlorine-free		☒	☐	
P14 Voluntary programs:					
P14.1	The product meets the requirements of the following voluntary program(s): ENERGY STAR® Criteria version: ver.2 Date: 31.1.2014 Product category: MFDs Eco-label: Blue Angel Criteria version: RAL UZ-171 Date: July 2012 Product category: Multi Function Device Eco-label: Criteria version: Date: Product category:				
P15 Additional information (See NOTE B11)					
BTU (230v)	Sound Pressure Level (LpAm) : Idle= 26 dB, Operation= 54 / 54 dB				
BTU (115v)	34.5 BTU/h The figure is based on the TEC value of 1.7 kWh/week (=24h x 7days)				
BTU (115v)	40.6 BTU/h The figure is based on the TEC value of 2.0 kWh/week (=24h x 7days)				

NOTE B10 A Guidance document on Chemical Emissions is available;
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>

NOTE B11 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B1

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1, P4.1
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Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000, (Marketing and use of Ozone layer depleting substances)	P1.3, 5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
"REACH" Regulation (1907/2006), annex VII	P1.10
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2.3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) 1907/2006 (REACH Regulation), Article 31, annex II)	P4.3
Regulation (EC) 1272/2008 (CLP Regulation)	P4.3, P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1