Safety Data Sheet

SDS # : P-07BULK

Dry Ink - Black

Issuing Date 2015-03-23 **Revision Date** 2015-06-02 **Version** 2

Active

1. Product and Company Identification

Trade Name Dry Ink for Nuvera 100 Digital Production System, Nuvera 120 Digital Production System, Nuvera 100 Digital Copier/Printer, Nuvera 120 Digital Copier/Printer, DocuTech 120 Copier, DocuTech 120 Copier/Printer, DocuTech 100 Copier, DocuTech 100 Copier/Printer

Part no. 502S67291, 502S67456

Color	Black
Pure substance/preparation	Preparation
Identified uses	Xerographic printing
Manufactured by	Xerox Corporation Rochester, NY 14644
Emergency telephone	Safety Information US: (800) 275-9376 Chemical Emergency only (Chemtrec) (800) 424-9300

2. Hazards Identification

Warning

Emergency Overview

May form combustible dust concentrations in air

Color	Appearance	Physical state	Odor
Black	Powder	Solid	Faint

Classification of the substance or mixture

Industrial use / Bulk containers

OSHA Hazard Classification Combustible dust

Label elements

Signal Word Warning

Hazard Statements May cause combustible dust concentrations in air

Precautionary Statements

Prevent dust cloud
Sweep up or vacuum with electrically protected vacuum cleaner and collect in suitable container for disposal.
Use non-sparking tools and equipment
Keep away from sources of ignition - No smoking

Potential Health Effects

Principle Routes of Exposure Inhalation

Acute toxicity

Eyes No known effect
Skin No known effect
Inhalation No known effect
Ingestion No known effect

Chronic effects

Main symptoms **Overexposure may cause:**
mild respiratory irritation similar to nuisance dust.

Aggravated medical conditions None under normal use conditions

Environmental hazard The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects.

3. Composition/Information on Ingredients

Chemical Name	CAS-No	Weight %
Polyester resin	39382-25-7	75-85
Steel powder	7439-89-6	5-25
Carbon Black	1333-86-4	<5
Titanium dioxide	13463-67-7	<2
Silica, treated	68909-20-6	<5

4. First Aid Measures

General advice For external use only. When symptoms persist or in all cases of doubt seek medical advice. Show this material safety data sheet to the doctor in attendance.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes

Skin contact Wash skin with soap and water

Inhalation Move to fresh air

Ingestion Rinse mouth with water and afterwards drink plenty of water or milk

Notes to physician Treat symptomatically

Protection of first-aiders No special protective equipment required

5. Fire-Fighting Measures

Flammable properties Not flammable. Will not readily ignite

Flash point Not applicable

Suitable extinguishing media Use water spray or fog; do not use straight streams, Foam

Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

Hazardous combustion products	Hazardous decomposition products due to incomplete combustion, Carbon oxides, Nitrogen oxides (NOx)
Explosion Data	
Sensitivity to Mechanical Impact	Not impact sensitive
Sensitivity to Static Discharge	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard
Note	See Section 9 for physical properties related to explosibility

Protective Equipment and Precautions for Firefighters

In the event of fire and/or explosion do not breathe fumes. Wear fire/flame resistant/retardant clothing. Use self-contained pressure-demand breathing apparatus if needed to prevent exposure to smoke or airborne toxins.

6. Accidental Release Measures

Personal Precautions	Avoid breathing dust
Environmental Precautions	No special environmental precautions required
Methods for containment	Prevent dust cloud
Methods for cleaning up	Prevent dust cloud. Sweep up or vacuum up spillage and collect in suitable container for disposal. Use non-sparking tools and equipment. Avoid ignition sources.
Other Information	The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects.

7. Handling and Storage

Advice on safe handling	Handling practices and processes should be consistent with the safe handling of combustible dust. Prevent dust cloud In case of insufficient ventilation, wear suitable respiratory equipment Keep away from open flames, hot surfaces and sources of ignition Take precautionary measures against static discharges
Technical measures/Storage conditions	Keep container tightly closed in a dry and well-ventilated place Store at room temperature
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice
Industrial User	Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday Provide regular cleaning of equipment, work area and clothing.

8. Exposure Controls/Personal Protection

Exposure guidelines

Product information

ACGIH TLV TWA	10 mg/m³ (inhalable particles)
ACGIH TLV TWA	3 mg/m³ (respirable dust)
OSHA PEL TWA	15 mg/m³ (total dust)
OSHA PEL TWA	5 mg/m³ (respirable dust)
Xerox Exposure Limit	2.5 mg/m³ (total dust)
Xerox Exposure Limit	0.4 mg/m³ (respirable dust)

Other Information

The results obtained from a Xerox sponsored Chronic Toner Inhalation Study demonstrated no lung changes in rats for the lowest (1 mg/m³) exposure level (the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of animals at the middle (4mg/m³) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m³) exposure level. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged period. This study was conducted using a special test toner to comply with an EPA testing protocol.

Occupational Exposure Controls

Engineering measures Engineering controls should be used to maintain airborne dust levels below established exposure limits

Industrial use Equipment and processes should be designed and operated in accordance with directives for safe handling of combustible dust. Provide appropriate exhaust ventilation at places where dust is formed. Ensure all equipment is electrically grounded before beginning transfer operations.

Personal Protective Equipment

Industrial use / Bulk containers

Respiratory protection No special protective equipment required

Eye/Face protection No special protective equipment required

Skin and body protection No special protective equipment required

Hand protection No special protective equipment required

Industrial use If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn Wear protective eyewear (goggles)

9. Physical and Chemical Properties

Appearance	Powder	**Odor**	Faint
Odor threshold	Not applicable	**Physical state**	Solid
pH	Not applicable	**Color**	Black
Flash point	Not applicable	**Boiling point/range**	Not applicable
Autoignition temperature	Not applicable		

Flammability Limits in Air Not applicable

Explosive properties (Method: ASTM E 1226 Standard Test Method for Explosibility of Dust Clouds)

Maximum rate of explosion pressure rise (KSt)	282 - 304 m*bars/sec
Maximum explosion pressure (Pmax)	7.9 - 9.0 bar

Minimum ignition energy	<3 milllijoules
Vapor pressure	Not applicable
Vapor density	Not applicable
Water solubility	Negligible
Viscosity	Not applicable
Partition coefficient	Not applicable
Evaporation rate	Not applicable
Melting point/range	Not determined
Freezing point	Not applicable
Decomposition temperature	Not determined
Specific gravity	~ 1 (toner component) ~ 5 (carrier component)

10. Stability and Reactivity

Reactivity	No dangerous reaction known under conditions of normal use
Stability	Stable under normal conditions
Incompatible products	None
Conditions to Avoid	Heat, flames and sparks Take precautionary measures against static discharges Prevent dust cloud
Hazardous Decomposition Products	None under normal use
Hazardous polymerization	Hazardous polymerization does not occur
Hazardous reactions	None under normal processing

11. Toxicological Information

The toxicity data noted below is based on the test results of similar reprographic materials.

Acute toxicity

Product information

Irritation	No skin irritation, No eye irritation
LD50 Oral	> 5 g/kg (rat)
LD50 Dermal	> 5 g/kg (rabbit)
LC50 Inhalation:	> 5 mg/L (rat, 4 hr)
Eyes	No known effect
Skin	No known effect
Inhalation	No known effect
Ingestion	No known effect

Chronic toxicity

Product information

Chronic effects	No known effects under normal use conditions
Main symptoms	**Overexposure may cause:** mild respiratory irritation similar to nuisance dust.
Aggravated medical conditions	None under normal use conditions
Carcinogenicity	See "Other Information" in this section.

Chemical Name	IARC	NTP
Carbon Black	2B	
Titanium dioxide	2B	

Other information
The IARC (International Agency for Research on Cancer) has listed carbon black as "possibly carcinogenic to humans". The classification is based on studies evaluating pure, "free" carbon black. In contrast, toner is a formulation composed of specially prepared polymer and a small amount of carbon black (or other pigment). In the process of making toner, the small amount of carbon black becomes encapsulated within a matrix. Xerox has performed extensive testing of toner, including a chronic bioassay (test for potential carcinogenicity). Exposure to toner did not produce evidence of cancer in exposed animals. The results were submitted to regulatory agencies and published extensively.

The IARC (International Agency for Research on Cancer) has listed titanium dioxide as "possibly carcinogenic to humans". The classification is based on studies in rats using pure, unbound TiO2. Based on the review of available study results, when this product is used as intended, Xerox has concluded that the presence of titanium dioxide in this mixture does not present an increased risk of lung cancer or chronic respiratory disease.

Other toxic effects

Product information

Sensitization	No sensitization responses were observed
Mutagenic effects	Not mutagenic in AMES Test
Developmental toxicity	None known.
Teratogenicity	None known
Target organ effects	None known
Other adverse effects	None known
Aspiration Hazard	Not applicable

12. Ecological Information

Ecotoxicity
The environmental impact of this product has not been fully investigated. However, this preparation is not expected to present significant adverse environmental effects.

Persistence and degradability No information available.

13. Disposal Considerations

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport Information

Note This material is not subject to regulation as a hazardous material for shipping.

15. Regulatory Information

International Inventories

TSCA	Complies
DSL/NDSL	Complies

EINECS/ELINCS Complies

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
Clean Water Act
This product is not regulated as a pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product is not regulated as a hazardous air pollutant (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.
CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.
TSCA
TSCA 12(b) does not apply to this product.

U.S. State Regulations

California Proposition 65
Carbon black is regulated under California Proposition 65 only if in the form of "airborne, unbound particles of respirable size". Toner products do not contain carbon black in the form of "airborne, unbound particles of respirable size". Therefore, the requirements of Proposition 65 do not apply to this product.

Titanium dioxide is regulated under California Proposition 65 only if a product results in exposure in the form of "airborne, unbound particles of respirable size". Toner products do not result in exposure to titanium dioxide in the form of "airborne, unbound particles of respirable size". Therefore, the requirements of Proposition 65 do not apply to this product.

Chemical Name	CAS-No	California Prop. 65
Carbon Black	1333-86-4	Carcinogen
Titanium dioxide	13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations
Although this product contains substances included in some U.S. State Right-to-Know regulations, the particles are bound in a unique matrix and, therefore, the product does not pose any specific hazard.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. Other Information

Issuing Date 2015-03-23

Revision Date 2015-06-02

Revision Note Updated for OSHA HazCom 2012 and WHMIS 2015

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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