



SAFETY DATA SHEET

According to EC Regulations 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010 and
Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Date of issue : 11/03/2016
Revision Number : 1

SECTION 1: IDENTIFICATION

1.1 **Product identifier :** Black Toner Cartridge

Product Description :	Part Number:
Dell Standard Capacity Black Toner Cartridge	HD47M
Dell High Capacity Black Toner Cartridge	3070F
Dell Extra High Capacity Black Toner Cartridge	67H2T

Application: Dell C2660dn, C2665dnf

1.2 **Relevant identified uses of the substance /mixture and uses advised against**

Use(s) : Printer toner
Uses advised against : None, although recommended for the above use only

1.3 **Details of the supplier of the safety data Sheet**

Name of supplier : Dell Inc.
Address : One Dell Way Round Rock, TX, USA 78682
Telephone : Information:1-800-W W W-DELL
Prepared by : Product Environmental Programs

1.4 **Emergency telephone number :** 1-800-551-8553

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture**

This product is not classified as hazardous according to Regulation (EC) No 1272/2008. Safety Data Sheets do not have to be provided for non-hazardous products, however this information is provided as a courtesy to our customers in this format.

2.1.1 **Classification according to Regulation (EC) No 1272/2008 (including amendments):**

Not classified

2.1.2 **Classification according to EC Directive 1999/45/EC (including amendments):**

Not classified

2.1.3 **Classification according to OSHA 29 CFR 1910.1200 HCS**

Not classified

2.2 **Label elements**

Labelling according to Regulation (EC) No 1272/2008:

Labelling according to OSHA 29 CFR 1910.1200 HCS

Hazard pictogram(s) Not required

Signal word(s) Not required

Hazard statement(s) Not required

Precautionary statement(s) Not required



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2.3 Other hazards None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

EC Number	CAS Number	Name	Ingredients (% by wt.)	Classification according to Regulation (EC) No 1278/2008 (CLP)
Undisclosed	Undisclosed	Polyester	70 - 90%	Not classified
215-609-9	1333-86-4	Carbon Black	< 10%	Not classified
232-315-6	8002-74-2	Paraffin Wax	< 10%	Not classified
205-685-1	147-14-8	Blue pigment	< 10%	Not classified
231-545-4	7631-86-9	Amorphous silica	< 10%	Not classified
236-675-5	13463-67-7	Titanium oxide	< 1%	Not classified

No REACH registration numbers are provided either because the mixture contains pre-registered phase-in substances and the transition period for their registration according to Article 23 of REACH has not yet expired or because the annual tonnages do not require a REACH registration.

SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

Inhalation	Remove from exposure and provide fresh air. Rinse mouth with water.
Skin Contact	Wash with soap and water.
Eye Contact	Flush with a large amount of water for at least 15 minutes. Seek medical advice.
Ingestion	Rinse mouth with water. Give several glasses of water to drink and seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No information available. No specific symptoms are predicted.

4.3 Indication of any immediate medical attention and special treatment needed

No special treatment needed. Treatment based on judgment of the doctor in response to symptoms of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media	Water spray, Foam, Dry chemicals. When in a machine, treat as an electrical fire.
Unsuitable Extinguishing Media	No information available.



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|------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.2 | Special hazards arising from the substance or mixture | None known. |
| 5.3 | Advice for fire-fighters | Immediately remove flammable materials from the surroundings. Fight fire from the upwind position. Remove movable containers to a safe place immediately in case of fire in the vicinity. Do not allow non-authorized personnel to access around the fire. Extinguish quickly and completely using specified fire extinguisher. Wear heat-resistant protective clothing, protective gloves and respiratory protection when engaged in fire-fighting. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

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|------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | Personal precautions, protective equipment and emergency measures | Avoid inhalation. If you spill a large volume of toner, wear proper protective equipment and collect them in closed container. |
| 6.2 | Environmental precautions | Prevent from entering into soil, waterways and ground water. |
| 6.3 | Methods and material for containment and cleaning up | Shut off ignition sources. For small spills, sweep up or soak up with damp cloth. (It may catch fire by electric sparks inside the vacuum cleaner and cause explosion) |
| 6.4 | Reference for safe handling | See Sections 8 and 13. |

SECTION 7: HANDLING AND STORAGE

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|------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1 | Precautions for safe handling | Technical measures: None required when used as intended in Dell equipment. For use other than normal customer operating procedures (such as in bulk toner processing facilities), local exhaust ventilation may be required.
Notice: Do not incinerate toner or a toner cartridge. Do not disassemble a cartridge.
Safe handling advice: Do not incinerate toner or a toner cartridge. Do not disassemble a cartridge. |
| 7.2 | Conditions for safe storage, including any incompatibilities | Technical measures: None
Conditions for safe storage: Keep in cool, dry and well-ventilated area. Keep out of reach of children |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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|--------------|-----------------------------------------|------------------------------------------------------------------|
| 8.1 | Control parameters | |
| 8.1.1 | Occupational exposure limits | No European Union occupational exposure limits. |
| | ACGIH TLV (2014) : | 10 mg/m ³ (Total)
3 mg/m ³ (Respirable) |
| | OSHA PEL : | 15 mg/m ³ (Total)
5 mg/m ³ (Respirable) |
| 8.1.2 | Biological Limit Value: | None for the product. |
| 8.1.3 | PNECs and DNELs: | None available for the product. |
| 8.2 | Exposure controls | |
| 8.2.1 | Appropriate engineering controls | None for the product. |



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8.2.2 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

None required when used as intended in Dell equipment. For use other than normal customer operating procedures (such as in bulk toner processing facilities), protective glove, goggles and respirators may be required.

Glasses with side protection or goggles. Wear appropriate protective eyeglasses or chemical safety goggles, EN166: 2002 as minimum standard.

Glasses with side protection or goggles. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133

Skin protection (Hand protection/ Other)

Protective gloves. EN374 as minimum standard. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.

Respiratory protection

Use approved respirators, EN149 as minimum standard. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Follow the OSHA respirator regulations found in 29 CFR 1910.134.

Use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Skin and body protection
Hygiene measures

Protective boots and apron.

Wash hands thoroughly after handling.

8.2.3 Environmental Exposure Controls

Follow best practice for site management and disposal of waste.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Powder
Color	Black
Odor	Faint odor
Odor threshold (ppm)	No data available
pH (Value)	Not applicable
Melting point / freezing point	No data available
Initial boiling point and boiling range	Not applicable
Flash point (°C)	Not applicable
Evaporation rate	No data available



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Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	Not applicable
Vapor density (Air=1)	Not applicable
Relative Density	No data available
Solubility(ies)	Insoluble
Partition coefficient (n-Octanol/water)	Not applicable
Auto ignition temperature	Not applicable
Decomposition temperature (°C)	No data available
Viscosity (mPa. s)	Not applicable
Explosive properties	No data available
Oxidizing properties	No data available
9.2 Other information	No other information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	None
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	None
10.4 Conditions to avoid	None
10.5 Incompatible materials	None
10.6 Hazardous decomposition products	No data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The toxicity data noted below is based on test results of this materials or similar materials.

Acute toxicity

Swallowed→LD50(rat) >2000 mg/kg (practically non-toxic)

Skin→LD50(rabbit) Not applicable.

Skin Irritant(rabbit) Not an irritant

Serious eye damage/eye irritation - Description(rabbit) Not an irritant

Skin or Respiratory sensitization - Description(guinea-pig) Not a skin sensitizer

mutagenicity Ames Assay: Negative

Carcinogenicity Carbon Black is classified as “Group 2B(possibly carcinogenic to humans)” by The International Agency for Research on Cancer (IARC). But we obtained the results from a Chronic Toner Inhalation Study, that commercially available supplier toner has no evidence of human carcinogens. Titanium dioxide is classified as Group 2B by IARC. In animal



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chronic inhalation study, rats only showed the incidence of lung tumors which is attributed to excessive burden on rat lung clearance mechanism (overloading).It is assumed that a designated use of this product should not cause such excessive burden on lung clearance mechanism. Epidemiological studies provide no clear evidence of elevated risks of lung tumors mortality or morbidity among the workers exposed to TiO2 dust. All other ingredients are not classified as "Carcinogens ref.1".

Reproductive toxicity

Not classified as Reproductive and Development chemicals ref.2.

STOT - single exposure

No data available.

STOT - repeated exposure

The results obtained from a supplier sponsored, Chronic Toner Inhalation Study, demonstrated no lung change in rats for the lowest (1mg/m3) exposure level (i.e. the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of the 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 EPA testing protocol. The test toner was ten times more respirable than commercially available supplier toner, and would not be functionally suitable for DELL equipment.*1

Aspiration hazard

Not applicable.

Target Organs

No data available.

Information on the likely routes of exposure:

Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate):

No data available

Chronic (Delayed):

No data available

Skin

Acute (Immediate):

No data available

Chronic (Delayed):

No data available

Eye

Acute (Immediate):

No data available

Chronic (Delayed):

No data available

Ingestion

Acute (Immediate):

No data available

Chronic (Delayed):

No data available

Symptoms related to the physical, chemical and toxicological characteristics:

No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The toxicity data noted below is based on test results of this materials or similar materials.
Acute Toxicity



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Fish 96hr LC50(Oryzias latipes)	:	>500 mg/L	(practically non-toxic)
Daphnia 48hr EC50(Daphnia magna)	:	>100 mg/L	(practically non-toxic)
Algae 72hr EC50(Selenastrum capricornutum)	:	>100 mg/L	(practically non-toxic)

12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.6 Other adverse effects	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods	
13.1.1 Residual wastes	Dispose of in accordance with national and local regulations.
13.1.2 Contaminated containers and packaging	Dispose of in accordance with national and local regulations.

SECTION 14: TRANSPORT INFORMATION

Transport in accordance with national, and local regulations.
DOT Status : Not classified as a hazardous material or substance under US DOT.
International Shipping : ADR/RID/IMDG/IATA Classes :not regulated.

14.1 UN number	Not regulated
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing Group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the product EU regulations	This safety datasheet complies with the requirements of EC Regulations 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010. Authorizations: Not applicable Restrictions on use: Not applicable
15.2 Chemical Safety Assessment	A Chemical Safety Assessment has not been carried out for this product.

SECTION 16: OTHER INFORMATION

Date of preparation of SDS: 11/03/2016



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Methods of evaluation:

The mixture was classified using data available for the mixture and data available for the neat substances with the application of relevant concentration limits, in accordance with Regulation (EC) No 1272/2008.

References:

ECHA Guidance on the compilation of safety data sheets. Version 2.1. February 2014.

GESTIS-database on hazardous substances

Regulation (EC) No. 1907/2006 of The European Parliament and of The Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

- 1 :
 - IARC Monographs on the Evaluation Carcinogenic Risks to Humans (WHO.International Agency for Research on Cancer)
 - National Toxicology Program(NTP) Report on Carcinogens (NTP)
 - TLVs and BEIs (American Conference of Governmental Industrial Hygienists)
 - REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 ANNEX VI on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006)
 - Journal of Occupational Health (Japan Society for Occupational Health)

- 2 : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Abbreviations:

DNEL: Derived no-effect level

PBT: Persistent, bioaccumulative and toxic

PNEC: Predicted no-effect concentration

vPvB: Very persistent and very bioaccumulative.

CAS Registry Number(R) is a Registered Trademark of the American Chemical Society.

The above mentioned data correspond to our present state of knowledge and experience, but no warranty is made. Users should consider these data only as a supplement to other information and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of the materials and safety and health of employees and customers.