

Material Safety Data Sheet

OSHA 29 CFR 1910.1200

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Océ PlotWave 350 Toner

1. Identification of the substance/preparation and of the company/undertaking

Product name : Océ PlotWave 350 Toner
Article number : 1060127660
Packaging : Polyethylene bottle, contents 0,4 kg/0.9 lb
Specific uses : Ink powder for Océ PlotWave 350. Other uses are not recommended.
Supplier : Océ North America, Inc.
Address : 100 Oakview Drive, Trumbull, CT 06611, USA
Océ North America MSDS hotline : 773.714.3622
Emergency telephone number : 1.800.424.9300 (24 Hour Safety Data Information)

2. Hazards identification

OSHA HCS Classification : Not classified.
Emergency overview : Handle carefully; avoid breathing dust.

Classification according to Directive 67/548/EEC [DSD] / Directive 1999/45/EC [DPD]

Europe : Not classified.
Other hazards which do not result in classification : To the best of our knowledge, with due observance of the recommended exposure limits and of normal hygiene this product presents no health hazard in normal use. Fine toner dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

See Section 4 and 11 for more detailed information on health effects and symptoms.

3. Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification Europe		Type
			67/548/EEC	CLP 1272/2008/EC	
Polyester resin	Confidential	25 - 50	Not classified.	Not classified.	-
Phenoxy resin	Confidential	25 - 50	Not classified.	Not classified.	-
Iron oxide	Confidential	10 - 25	Not classified.	Not classified.	-
Carbon black	EC: 215-609-9 CAS: 1333-86-4	1 - 5	Not classified.	Not classified.	[2]
Amorphous silica	Confidential	0 - 1	Not classified.	Not classified.	-

Type

- [1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Hazardous ingredients

United States : Carbon black

Occupational exposure limits, if available, are listed in Section 8.

4. First aid measures

Description of first aid measures

Inhalation : Remove to fresh air. Clean nose, mouth and throat. Cough up.
Ingestion : Rinse mouth with water. If swallowed, seek medical advice immediately and show this container or label.
Skin contact : Wash skin with soap and cold water.
Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water, keeping eyelids open.

Potential acute health effects

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. (*)
Ingestion : No known significant effects or critical hazards. (*)
Skin contact : No known significant effects or critical hazards. (*)
Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes. (*)

(*) Based on toxicological literature on the ingredients of this product and test results of similar products.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing.

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Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: Adverse symptoms may include the following: irritation, redness.
<u>Specific treatments</u>	: In all cases of doubt, or when symptoms persist, seek medical attention and take along this safety data sheet.

See Section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable	: Recommended: alcohol-resistant foam, CO ₂ , powders, water spray.
Not suitable	: Do not use water jet.
Hazardous thermal decomposition products	: carbon monoxide, carbon dioxide, smoke.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions	: Avoid breathing dust. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Spill	: Avoid formation of dust. Vacuum or sweep up spilled material with a damp rag. Contain and collect spillage only with an electrically protected vacuum cleaner.

See Section 8 for information on appropriate personal protective equipment.

7. Handling and storage

Protective measures	: Handle and open container with care. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Use only with adequate ventilation. See operator manual or safety data sheet of the copier/printer.
Storage	: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use.
Precautions (Specific uses)	: See instructions for safe use on the label of the tonerbottle and in the operator manual of the copier/printer. Keep container tightly closed to prevent dust formation. Shake well before use.

8. Exposure controls/personal protection

Occupational exposure limits

<u>Inгредиент name</u>	<u>Occupational exposure limits</u>
US Carbon Black	ACGIH TLV (United States, 2/2010). TWA: 3,5 mg/m ³ 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 3,5 mg/m ³ 10 hour(s). TWA: 0,1 mg of PAHs/cm ³ 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 3,5 mg/m ³ 8 hour(s).
Respirable particulate	ACGIH TLV (United States). TWA: 3 mg/m ³ , (Non-toxic particulates and dust.) Form: Respirable dust
Inhalable particulate	ACGIH TLV (United States). TWA: 10 mg/m ³ , (Non-toxic particulates and dust.) Form: Inhalable Dust

Occupational exposure controls	: Use only with adequate ventilation. See operator manual or safety data sheet of the copier/printer.
Respiratory protection	: Not required during normal intended use of this product.
Hand protection	: Not required.
Eye protection	: Not required.
Skin protection	: Not required. Wash skin with soap and cold water.
Environmental exposure controls	: Not required during normal intended use of this product.

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9. Physical and chemical properties

Appearance

Physical state	: Solid. [Powder.]
Color	: Black.
Odor	: Faint odor.
pH	: Not applicable.
Melting point	: 50°C (122°F)
Boiling point	: Not available.
Flash point	: Not applicable.
Evaporation rate	: Not applicable.
Flammability	: Not available.
Explosion limits	: Lower: 60 %
Vapor pressure	: Not available.
Vapor density	: Not applicable.
Density	: 1 g/cm ³
Relative density	: Not available.
Solubility	: Insoluble in water. Partially soluble in the following materials: tetrahydrofuran, acetone.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Not available.

10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid formation of dust.
Incompatible materials	: None known.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Remark	: Toner is combustible. Fine toner dust clouds may form explosive mixtures with air.

11. Toxicological information

Information on toxicological effects

Acute toxicity	: No adverse effects are expected under intended use.
Chronic toxicity	: No known significant effects or critical hazards.
Irritation/Corrosion Skin	: Non-irritating to the skin.
Eyes	: Mildly irritating to the eyes.
Respiratory	: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Mutagenicity	: Not mutagenic in Ames test. (Based on test result of similar product.)
Carcinogenicity	: No known significant effects or critical hazards.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Carbon black	A4	2B	-	+	-	-

: Carbon Black: in 1996 the International Agency for Research on Cancer (IARC) re-evaluated carbon black as a Group 2B carcinogen (possible human carcinogen), based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black. The effects were observed only in animals exposed to high concentrations of 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. Epidemiology studies of workers in the carbon black producing industries of North America and Western Europe do not demonstrate an association between carbon black and cancer, even in high exposure occupational settings. In addition, in its re-evaluation of carbon black, IARC concluded that "there is inadequate evidence in humans for the carcinogenicity of carbon black". Chronic overexposure to many dusts, including carbon black dust, may result in respiratory tract irritation and slight changes in lung function.

Reproductive toxicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.

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12. Ecological information

- Ecotoxicity** : The product has not been tested. Based on the properties of the ingredients can be stated that this product is not hazardous to the environment.
- Persistence and degradability** : Not readily biodegradable.
- Bioaccumulative potential** : No known significant effects or critical hazards.
- Mobility in soil** : Not available.
- Other adverse effects** : No known significant effects or critical hazards.

13. Disposal considerations

- Methods of disposal** : This product is not classified as a hazardous waste. Pack waste dustproof. Do not throw in open fire, in order to prevent the risk of a dust explosion.
Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
- RCRA classification** : This product is not listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261.

14. Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

DOT Classification : Not a DOT controlled material (United States).

15. Regulatory information

United States

- OSHA HCS Classification** : Not classified.
- Precautionary statements** : Handle carefully; avoid breathing dust.

- Contains** : Carbon black **CAS number** 1333-86-4

State regulations

- California Prop. 65** : Listed component
Listing of the carbon black on the Proposition 65 list of carcinogens is restricted to unbound particles of respirable size. In printer toners carbon black is bound in polymer matrices, therefore warnings under Proposition 65 are not required.

Inventory Status

- United States inventory (TSCA 8b) : All components are listed or exempted.
- Canada inventory (DSL) : All components are listed or exempted.
- Europe inventory (EINECS/ELINCS/NLP) : All components are listed or exempted.
- Swiss Inventory of Notified New Substances : All components are listed or exempted.
- Japan inventory (ENCS) : All components are listed or exempted.
- Philippines inventory (PICCS) : All components are listed or exempted.
- Korea inventory (KECI) : All components are listed or exempted.
- Australia inventory (AICS) : All components are listed or exempted.
- China inventory (IECSC) : All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.

16. Other information

- Revision comments** : Changes to Safety Data Sheet according to REACH.
- Date of previous issue** : 12-2011
- Version** : 2
- Abbreviations and acronyms** : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DPD = Dangerous Preparations Directive [1999/45/EC]
DSD = Dangerous Substances Directive [67/548/EEC]
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
ICAO = International Civil Aviation Organization
IMDG = International Maritime Dangerous Goods
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
PBT = Persistent, Bioaccumulative and Toxic
vPvB = Very Persistent and Very Bioaccumulative

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ACGIH = American Conference of Industrial Hygienists
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value
TWA = Time Weighted Average
OSHA = Occupational and Safety Health Act
HCS = Hazard Communication Standard
RCRA = Resource Conservation and Recovery Act
DOT = Department Of Transportation
PEL = Permissible Exposure Limit
REL = Recommended Exposure Limit
EPA = Environmental Protection Agency
IARC = International Agency for Research on Cancer
NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program

This safety data sheet has been compiled to the best of our knowledge as a compact guide to safe handling of this product. We reserve the right to revise safety data sheets as new information becomes available. It is the user's responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary and to contact the company to make sure that this sheet is the latest one issued. If and insofar as limitation of liability is permitted under the applicable laws, we do not accept liability for any inaccuracy that may occur in this information.

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