



Artistri™ P6400 Black Ink

Version 2.1

Revision Date 11/10/2014

Ref. 130000138911

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Artistri™ P6400 Black Ink
 MSDS Number : 130000138911

Manufacturer : DuPont
 1007 Market Street
 Wilmington, DE 19898

Product Information : 1-302-774-1000
 Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
 Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Skin : May cause skin irritation. May cause:, Discomfort, itching, redness, or swelling..

Eyes : May cause eye irritation. May cause:, Tearing, redness, or discomfort..

Repeated exposure
 Ethane-1,2-diol : Adverse effects from repeated exposure may include: Kidney effects

Target Organ
 Ethane-1,2-diol : Kidney

Carcinogenicity

| | | | |
|--------------|------|-----|------|
| Material | IARC | NTP | OSHA |
| Carbon black | 2B | | |

Ethane-1,2-diol : DuPont has classified this material as a probable human carcinogen.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No. | Concentration |
|---------------------------|-----------|---------------|
| Humectant | | <30 % |
| Ethane-1,2-diol | 107-21-1 | <10 % |
| Carbon black | 1333-86-4 | <10 % |
| Non regulated ingredients | | >50% |

Any component not specifically identified is considered a trade secret. Properties and potential hazards of any trade secret component are included in this safety data sheet.

SECTION 4. FIRST AID MEASURES

- Skin contact : Wash off immediately with plenty of water. Wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.
- Eye contact : Immediately flush eye(s) with plenty of water. Seek medical advice.
- Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion : Is not considered a potential route of exposure. If swallowed Do NOT induce vomiting. Call a physician or poison control centre immediately.

SECTION 5. FIREFIGHTING MEASURES

Flammable Properties



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Flash point : > 93 °C (> 199 °F)
Method : Pensky-Martens closed cup - PMCC

Fire and Explosion Hazard : Not a fire or explosion hazard. Cool closed containers exposed to fire with water spray.

Suitable extinguishing media : Not combustible.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Keep containers and surroundings cool with water spray.

Firefighting Instructions : Immediately evacuate personnel to safe areas. Wear suitable protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers/tanks with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel) : Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wear suitable protective equipment.

Spill Cleanup : Contain spill. Soak up with inert absorbent material. Collect and contain contaminated absorbent and dike material for disposal. Keep in suitable, closed containers for disposal. Ventilate the area. Clean contaminated surface thoroughly.

Accidental Release Measures : Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE



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- Handling (Personnel) : Avoid breathing vapours or mist. Keep away from heat and flame. Do not use in areas without adequate ventilation.
 Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace. Remove contaminated clothing and protective equipment before entering eating areas. Remove and wash contaminated clothing before re-use.
- Handling (Physical Aspects) : Keep away from heat and sources of ignition. Avoid formation of aerosol.
- Storage : Store at room temperature in the original container. Keep away from sources of ignition - No smoking. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Keep container closed when not in use. Do not reuse empty container.
 Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Local exhaust or a laboratory hood should be used when handling the materials. Maintain air concentrations below occupational exposure standards.
- Personal protective equipment

 - Respiratory protection : Provide adequate ventilation.
 - Hand protection : Material: Impervious gloves
 - Eye protection : Wear safety glasses with side shields.

Exposure Guidelines
 Exposure Limit Values

| | | | |
|-----------------------------|---------|-----------|--------------------------------|
| Humectant | | | |
| Permissible exposure limit: | (OSHA) | 5 mg/m3 | 8 hr. TWA Respirable fraction. |
| Permissible exposure limit: | (OSHA) | 15 mg/m3 | 8 hr. TWA Total dust. |
| Ethane-1,2-diol TLV | (ACGIH) | 100 mg/m3 | TLV-C Aerosol. |



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| | | | | |
|--|----------|-----------|----------------|---|
| AEL * | (DUPONT) | 10 mg/m3 | 8 & 12 hr. TWA | Particulate. |
| AEL * | (DUPONT) | 50 ppm | 8 & 12 hr. TWA | Vapor. |
| Carbon black Permissible exposure limit: | (OSHA) | 3.5 mg/m3 | 8 hr. TWA | |
| TLV | (ACGIH) | 3 mg/m3 | TWA | Inhalable fraction. |
| AEL * | (DUPONT) | 0.5 mg/m3 | 8 & 12 hr. TWA | Polynuclear Aromatic Hydrocarbons (PAH) < 0.1% |

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------|-----------------------------|
| Form | : liquid |
| Color | : black |
| Odor | : acrylic-like |
| pH | : 8.2 |
| Boiling point | : no data available |
| Density | : 1.1 g/cm3 |
| Water solubility | : dispersible |
| Viscosity | : 11 mPa.s at 32 °C (90 °F) |

SECTION 10. STABILITY AND REACTIVITY

| | |
|----------------------------------|---|
| Conditions to avoid | : Avoid extreme heat. Do not freeze. |
| Incompatibility | : None reasonably foreseeable. |
| Hazardous decomposition products | : Hazardous combustion products: Under fire conditions: carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx), Smoke |



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Hazardous reactions : Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Humectant

Dermal LD50 : 56,750 mg/kg , Guinea pig

Oral LD50 : 27,260 mg/kg , Rat

Skin irritation : No skin irritation, Rabbit

Eye irritation : No eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., human

Repeated dose toxicity : Oral
Rat

No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.

Ethane-1,2-diol

Dermal LD50 : > 3,500 mg/kg , Mouse

Oral LD50 : 1,650 mg/kg , Cat

Skin irritation : No skin irritation, Rabbit

Eye irritation : No eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., human

Repeated dose toxicity : Oral



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Rat

Target Organs: Kidney
Kidney damage

- Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.
- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Reproductive toxicity : No toxicity to reproduction
No effects on or via lactation
Animal testing showed no reproductive toxicity.
- Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

Carbon black

- Oral LD50 : > 8,000 mg/kg , Rat
- Skin irritation : slight irritation, Rabbit
- Eye irritation : Slight or no eye irritation, Rabbit
- Carcinogenicity : Not classifiable as a human carcinogen.
Overall weight of evidence indicates that the substance is not carcinogenic.
- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Humectant

- 96 h LC50 : Oncorhynchus mykiss (rainbow trout) 54,000 mg/l
- ErC50 :



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48 h EC50 : Daphnia magna (Water flea) 1,955 mg/l

Ethane-1,2-diol

96 h LC50 : Pimephales promelas (fathead minnow) 72,860 mg/l

96 h ErC50 : Pseudokirchneriella subcapitata (green algae) 6,500 mg/l

48 h EC50 : Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202

Carbon black

96 h LC50 : Zebra fish > 1,000 mg/l OECD Test Guideline 203

72 h EC50 : Algae > 10,000 mg/l

24 h EC50 : Daphnia magna (Water flea) > 5,600 mg/l OECD Test Guideline 202

Environmental Fate

Ethane-1,2-diol

Biodegradability : Readily biodegradable. 90 - 100 % OECD Test Guideline 301

Bioaccumulation : Bioaccumulation is unlikely.

Carbon black

Biodegradability : Product is not expected to be biodegradable.

Bioaccumulation : Bioaccumulation is unlikely.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : If recycling is not practicable, dispose of in compliance with local regulations. Never place unused product down any indoor or out door drain.

Container Disposal : Do not reuse empty container. Contaminated/not cleaned containers should be treated/handled like product waste. Dispose of container properly. Refer to applicable Local, State/Provincial, and Federal Regulations, as well as industry Standards.



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SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

- TSCA : On the inventory, or in compliance with the inventory
- SARA 313 Regulated Chemical(s) : Ethane-1,2-diol
- CERCLA Reportable Quantity : 50251 lbs
Based on the percentage composition of this chemical in the product.:
Ethane-1,2-diol
- California Prop. 65 : Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm: none requiring notification
- PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Humectant, Ethane-1,2-diol, Carbon black
- NJ Right to Know Regulated Chemical(s) : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Humectant, Ethane-1,2-diol, Carbon black

SECTION 16. OTHER INFORMATION

The DuPont Oval Logo is a registered trademark of E.I. du Pont de Nemours and Company.

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information



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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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