



## Section 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name ARTISTRI P5400+ BLACK TEXTILE INK

Product code 6200- 1183

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

The product is only for industrial and/or professional use, not for any private consumer use.

### 1.3. Details of the supplier of the safety data sheet

#### Company/Undertaking Identification

Producer/Supplier	DuPont Digital Printing
Street/Box	Barley Mill Plaza
Nat.-Code/Postal code/City	US Wilmington, DE
Importer	DuPont de Nemours (Deutschland) GmbH
Street/Box	Hugenottenallee 173-175
Nat.-Code/Postal code/City	DE 63263 Neu-Isenburg

#### Product Information

Telephone +1 302 695 9682

#### Information on SDS

Responsible Department	Regulatory Affairs
Telephone	+49 (0)202 529-2385
Telefax	+49 (0)202 529-2804
E-mail address	sds-competence@deu.dupont.com

#### For further information, please also consult our Internet site

<http://www.dupont.com>

## Section 2. Hazards identification

The mixture is non-dangerous in accordance with Directive 1999/45/EC.

### 2.1. Classification of the substance or mixture

#### Classification of the mixture

Not applicable.

### 2.2. Label elements

#### S-phrases

S23	Do not breathe vapour.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.

## Section 3. Composition/information on ingredients

### 3.1. Substances

This product is a mixture. Health hazard information is based on its components.

### 3.2. Mixtures

#### Chemical characterization

Mixture of synthetic resins, pigments, and solvents as well as water



## Hazardous components

Substances presenting a health or environmental hazard within the meaning of the DSD 67/548/EEC and/or (EC) 1272/ 2008 title II and annex VI as amended by (EC) 790/2009

CAS 107-21-1	ethanediol	
EC 203-473-3	REACH 01-2119456816-28	12.50 - < 15.00 %
Classification	Xn: R22	
	[VI*] Acute Tox. 4, H302;	

Up to the given revision date of this safety data sheet only the above mentioned REACH registration numbers are assigned to the chemical substances used in this mixture.

### Additional advice

See full text of R-phrases in chapter 16.

See full text of H-phrases in chapter 16.

[VI\*]: Harmonised classification given by Annex VI of Regulation (EC) No 1272/2008 in its latest amended form

## Section 4. First aid measures

### 4.1. Description of first aid measures

#### General advice

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

#### Inhalation

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

#### Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

#### Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

#### Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

### 4.2. Most important symptoms and effects, both acute and delayed

Please see practical experience in section 11.

### 4.3. Indication of any immediate medical attention and special treatment needed

If unconscious place in recovery position and seek medical advice.

## Section 5. Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Water spray, Dry chemical, Foam.

#### Extinguishing media which shall not be used for safety reasons

High volume water jet

### 5.2. Special hazards arising from the substance or mixture



### Hazardous combustion products

Fire will produce dense black smoke containing hazardous combustion products. Exposure to decomposition products may be a hazard to health.

### Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

## 5.3. Advice for firefighters

### Fire and Explosion Hazards

The product is not flammable. Avoid heating above flash point.

### Special Protective Equipment and Fire Fighting Procedures

Wear as appropriate: Full protective flameproof clothing. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

## Section 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Keep in a well-ventilated place. Keep away from sources of ignition. Do not inhale vapours.

### 6.2. Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems. Please avoid any emission of volatile organic compounds as possible.

### 6.3. Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. Clean preferably with a detergent; avoid use of solvents.

### 6.4. Reference to other sections

Comply with safety directives (see chapters 7 and 8).

## Section 7. Handling and storage

### 7.1. Precautions for safe handling

#### Safe handling advice

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Operators should wear antistatic footwear and clothing. No sparking tools should be used. Avoid skin and eye contact. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Comply with the health and safety at work laws. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation, and gloves.

#### Advice on protection against fire and explosion

Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Never use pressure to empty container: container is not a pressure vessel. Always keep in containers of same material as the original one.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage areas and containers

Observe label precautions. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

Do not store together with explosives, compressed, liquefied and pressurised gases, aerosols, flammable liquids, oxidizing products, non combustible toxic products and infectious products.



## Section 8. Exposure controls/personal protection

### 8.1. Control parameters

#### DNEL

CAS-No.	Chemical Name	End Use	Exposure routes	Fre- quency of exposure	Type	Value
107-21-1	ethanediol	Workers	Dermal	Long term	Systemic effects	106 mg/kg
		Workers	Inhalative	Long term	Local effects	35 mg/m <sup>3</sup>

#### PNEC

CAS-No.	Chemical Name	Compartment	Type	Value
107-21-1	ethanediol	Aquatic	Sediment	1.53 mg/kg
		Aquatic	Fresh water	10 mg/l
		Aquatic	Sea-water	1 mg/l

#### Occupational exposure limits

CAS-No.	Chemical Name	Source	Time	Type	Value	Note
107-21-1	ethanediol		15 min	IOELV15	104 mg/cm <sup>3</sup>	Skin
			15 min	IOELV15	40 ppm	Skin
			8 hr	IOELV8	52 mg/cm <sup>3</sup>	Skin
			8 hr	IOELV8	20 ppm	Skin

### 8.2. Exposure controls

#### Additional technical information on the plant

Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn. Mask with gas filter, type A (EN 141)

#### Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

#### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

#### Hand protection

The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

Glove material	Glove thickness	Break through time
Nitrile rubber	0.33 mm	60 min

The protective glove should be checked in each case for their work specific suitability (e.g. mechanical stability, product compatibility, and anti-static properties). When the intended use is for spray application a nitrile glove of the chemical resistance group 3 (e.g. Dermatril® glove) is to be used. After contamination, the glove has to be changed. If immersing the hands into the product is not avoidable (e.g. maintenance work) a butyl or fluorocarbon rubber glove should be used. When skin exposure may occur to materials specified in section 3 of this SDS, advice should be sought from the glove supplier as to appropriate type to use with this product and the permeation breakthrough times. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately.



## Eye protection

Wear protective eyewear for protection against solvent spatter.

## Skin and body protection

Wear suitable protective clothing. Personnel should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber.

## Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

## Environmental exposure controls

Do not let product enter drains. For ecological information refer to section 12.

# Section 9. Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

### Appearance

Form: liquid Colour: black Odour: Odour is not perceptible.

### Important health, safety and environmental information

Property	Value	Method
pH	7 – 9	
Melting point/freezing point	-13 – -13 °C	
Boiling point/boiling range	100 °C	
Flash point	93 °C	ISO 3679
Evaporation rate	Slower than Ether	Does not sustain combustion.
Flammability (solid, gas)	not relevant as product is liquid	
Lower explosion limit	3.2 vol-% based on organic solvent content	
Upper explosion limit	15.3 vol-% based on organic solvent content	
Vapour pressure	0.6 hPa	
Vapour density	no data available	
Relative density	1.08 g/cm <sup>3</sup>	20 °C - DIN 53217/ISO 2811
Solubility(ies)		
Water solubility	appreciable	
Solubility in other solvents	miscible with most organic solvents Listed in: Section 3. Composition/information on ingredients	
Partition coefficient: n-octanol/water	This product is a mixture. For ingredient details see section 12	
Autoignition temperature	401 °C	DIN 51794 based on organic solvent content
Decomposition temperature	This product is a mixture. For further information see section 10.	
Viscosity (23 °C)	Not applicable.	ISO 2431 - 1993
Explosive properties	Not explosive	
Oxidizing properties	not oxidizing	

## 9.2. Other data

Solvent separation test	< 3%	ADR/RID
Content of volatile components (including water)	72.7 %	Basis Vapour pressure >= 0.01 kPa
organic solvent content	16.0 %	Basis Vapour pressure >= 0.01 kPa

# Section 10. Stability and reactivity

## 10.1. Reactivity

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

## 10.2. Chemical stability

The product is chemically stable.



### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials to avoid

not required under normal use

### 10.6. Hazardous decomposition products

The product contains ingredients which, under certain conditions, also may release formaldehyde. If necessary, the precise concentration has to be determined.

## Section 11. Toxicological information

### 11.1. Information on toxicological effects

#### General observations

There is no data available on the product. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 2 and 3 for details.

#### Practical experience

Swallowing may cause nausea, diarrhoea and vomiting.

#### Acute toxicity

##### Acute oral toxicity

EINECS-No.	Chemical Name	Species	Type	Exposure time	Value	Method
203-473-3	ethanediol	rat	LD50		> 2,000 mg/kg	

## Section 12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses. The data in this section is consistent with data from chemical safety reports available at the date of revision.

### 12.1. Toxicity

No information available.

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

Based on available data no ingredient is classified for this hazard property (please see section 3).

### 12.6. Other adverse effects

The preparation was evaluated in accordance with the conventional method of the preparation directive 1999/45/EG and was not classified as environmental dangerous.



### Adsorbed organic bound halogens (AOX)

Product does not contain organic linked halogens contributing to AOX.

## Section 13. Disposal considerations

### 13.1. Waste treatment methods

Dispose of in accordance with local regulations.

#### Product

Recommendation:

A disposal process that converts the waste into energy is recommended. If this is not possible the hazardous waste must be disposed of by incineration.

#### Uncleaned packaging

Recommendation:

Properly emptied containers are to be scrap processed or reconditioned. Improperly emptied containers are considered hazardous waste (waste key number 150110).

## Section 14. Transport information

Not classified as dangerous in the meaning of transport regulations.

ADR/RID:in accordance with nota 1 of chapter 2.2.3.1.1

IMDG:in accordance with chapter 2.3.1.3

ICAO/IATA:in accordance with chapter 3.3.1.3

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

Not applicable.

### 14.4. Packaging group

Not applicable.

### 14.5. Environmental hazards

ADR/RID; IMDG; ICAO/IATA: none

#### Marine pollutant

IMDG: no

### 14.6. Special precautions for user

please see section 6 - 8

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Deliveries shall only be made based on appropriate packaging and in compliance with traffic laws.



## Section 15. Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The mixture is non-dangerous in accordance with Directive 1999/45/EC.

### 15.2. Chemical Safety Assessment

No safety checks were carried out on the mixture.

## Section 16. Other information

Full text of R phrases with no. appearing in section 3

R22 | Harmful if swallowed.

Full text of H phrases with no. appearing in section 3

H302 | Harmful if swallowed.

### Information taken from reference works and the literature.

Substance No.	CAS no: <a href="http://www.cas.org/EO/regsys.html">www.cas.org/EO/regsys.html</a> EC no: <a href="http://ecb.jrc.it/esis/index.php?PGM=ein">http://ecb.jrc.it/esis/index.php?PGM=ein</a>
Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC.	<a href="http://ecb.jrc.it/existing-chemicals/">http://ecb.jrc.it/existing-chemicals/</a> <a href="http://ecb.jrc.it/classification-labelling/">http://ecb.jrc.it/classification-labelling/</a> <a href="http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB">http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB</a> <a href="http://www.cdc.gov/niosh/ipcs/icstart.html">http://www.cdc.gov/niosh/ipcs/icstart.html</a>
Other directives, limitations and prohibitory regulations	Directive 76/769/EC Directive 98/24/EC Directive 90/394/EC Directive 793/93/EC Directive 1999/45/EC Directive 2006/8/EC EUR-LEX: <a href="http://europa.eu.int/eur-lex/lex">http://europa.eu.int/eur-lex/lex</a>
Exposure limit for the pure substance	<a href="http://osha.europa.eu/OSHA">http://osha.europa.eu/OSHA</a>

### Training advice

Directive 76/769/EC

Directive 98/24/EC

### Further information

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU regulations and/or directives. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

### Report version

Version Changes

1.0

Revision Date: 2013-01-24