



# SAFETY DATA SHEET

## 1. Identification of the chemical and information about the manufacturer or supplier

**Important information** \*\*\* This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. \*\*\*

### 1.1 Identification of the chemical products

**1.1.1 Technical name** X4E41Series

**Other means of identification** None.

### 1.1.2 Recommended use of the chemical and restrictions on use

**Recommended use** Inkjet printing

**Limitations on use** None known.

### 1.2 Manufacturer/Importer/Supplier/Distributor information

#### 1.2.1 Manufacturer

ZAO Hewlett-Packard A.O.  
Highway Leningradskoe, House 16A, Building 3,  
125171, Moscow

**Telephone** 7 495 797-3500

#### HP Inc. health effects line

**(Toll-free within the US)** 1-800-457-4209

**(Direct)** 1-760-710-0048

#### HP Inc. Customer Care Line

**(Toll-free within the US)** 1-800-474-6836

**(Direct)** 1-208-323-2551

**Email:** [hpcustomer.inquiries@hp.com](mailto:hpcustomer.inquiries@hp.com)

## 2. Hazard(s) identification

### 2.1. Hazard identification of chemical product as a whole (classification according to GOST 12.1.007-76 and GHS)

**Classification according to GOST 12.1.007-76** Not available.

#### GHS classification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

### 2.2 Labeling elements in compliance with GOST 31340-2013

**2.2.1 Signal word** None.

**2.2.2 Symbols** None.

**2.2.3 Hazard statement** Not available.

#### Precautionary statement

**Prevention** Not available.

**Response** Not available.

**Storage** Not available.

**Disposal** Not available.

#### Other hazards

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA. Potential routes of overexposure to this product are skin and eye contact. Inhalation of vapor and ingestion are not expected to be significant routes of exposure for this product under normal use conditions. Complete toxicity data are not available for this specific formulation.

#### Supplemental information

2-pyrrolidone: Specific Concentration Limits, Reproductive toxicity Category 1B, fertility or the unborn child 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

### 3. Composition/information on ingredients

#### 3.1 Information on product as a whole

- 3.1.1 Chemical name (IUPAC) X4E41Series
- 3.1.2 Chemical formula Not available.
- 3.1.3 General description of the composition (taking into account the brand assortment; preparation method) Not available.

#### 3.2 Components

Components	Concentration by weight (%)	Hygienic standards in the working area			CAS-No.	EC No.
		MAC, mg/m <sup>3</sup>	TSEL, mg/m <sup>3</sup>	Hazard classification		
Water	65-85	None.	None.		7732-18-5	231-791-2
2-pyrrolidone	< 2.5	10 Aerosol.	None.	4	616-45-5	210-483-1

#### Composition comments

This ink supply contains an aqueous ink formulation.

Carbon black is present only in a bound form in this preparation.

2-pyrrolidone: Specific Concentration Limit 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

### 4. First-aid measures

#### 4.1. Observed symptoms

- 4.1.1 In case of exposure via inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- 4.1.2 In contact with skin Contact with skin may result in mild irritation.
- 4.1.3 In contact with eyes Contact with eyes may result in mild irritation.
- 4.1.4 In case of exposure via ingestion Health injuries are not known or expected under normal use.

#### 4.2 First-aid measures to be provided to victims

- 4.2.1 In case of exposure via inhalation Remove to fresh air. If symptoms persist, get medical attention.
- 4.2.2 In contact with skin Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
- 4.2.3 In contact with eyes Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.
- 4.2.4 In case of exposure via ingestion If ingestion of a large amount does occur, seek medical attention.
- 4.2.5 Contraindications Not available.

### 5. Fire-fighting and explosion safety measures and means

- 5.1 General characteristics of fire-explosion properties Not available.
- 5.2 Fire-explosion indicators Not available.
- 5.3 Combustion and/or thermal destruction products and hazards arising from these Not available.
- 5.4 Recommended extinguishing media Dry chemical, CO<sub>2</sub>, water spray or regular foam.
- 5.5 Forbidden extinguishing media None known.
- 5.6 Special protective equipment for firefighters Not available.
- 5.7 Specific extinguishing methods None established.

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## 6. Accident and emergency prevention and response measures and their consequences

### 6.1 Measures to prevent harmful effects on people, environment, buildings, constructions, etc. in case of accidents and emergencies

**6.1.1 General required actions in case of an accident or emergency** Wear appropriate personal protective equipment.

**6.1.2 Personal protection equipment in case of the accident** Not available.

### 6.2 Procedures for the elimination of accidents and emergencies

**6.2.1 Procedures in case of leaks, spills, splashes** Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

**6.2.2 Actions in case of fire** Not available.

**Methods and materials for containment and cleaning up** Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

**Environmental precautions** Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

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## 7. Storage and handling requirements of chemicals during loading and unloading

### 7.1 Safety precautions when handling chemical products

**7.1.1 Technical safety measures** Not available.

**7.1.2 Environmental protection measures** Not available.

**7.1.3 Recommended safe handling and transportation advice** Avoid contact with skin, eyes and clothing.

### 7.2 Chemical storage requirements

**7.2.1 Terms and conditions for safe storage** Not available.

**7.2.2 Packaging** Not available.

**7.3 Safety measures and storage requirements at domestic use** Keep out of the reach of children.  
Keep away from excessive heat or cold.

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## 8. Equipment for monitoring exposure and personal protective equipment

### 8.1 Parameters of the working area that require monitoring

#### Occupational exposure limits

Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended

Components	Type	Value	Form
2-pyrrolidone (CAS 616-45-5)	Ceiling	10 mg/m <sup>3</sup>	Aerosol.

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**8.2 Measures to ensure the content of harmful substances in the working area below the exposure level concentration** Exposure limits have not been established for this product.

**Appropriate engineering controls** Use in a well ventilated area.

### 8.3 Worker personal protective equipment

**8.3.1 General recommendations** Use personal protective equipment to minimize exposure to skin and eye.

**8.3.2 Respiratory protection** Not available.

#### 8.3.3 Protective equipment

**Eye/face protection** Not available.

**Hand protection** Not available.

**Other** Not available.

**Thermal hazards** Not available.

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**8.3.4 Personal protection equipment in case of domestic use** Not applicable.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

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## 9. Physical and chemical properties

### 9.1 Physical appearance

**Physical state** Liquid.  
**Form** Not available.  
**Color** Black.

**Odor** Not available.

**Odor threshold** Not available.

### 9.2 Parameters characterizing basic properties of the product

**pH** 7.5 - 8.2

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not determined

**Flash point** > 230.0 °F (> 110.0 °C) Setaflash Closed Cup

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not determined

**Flammability limit - upper (%)** Not available.

**Vapor pressure** Not determined

**Vapor density** >= 1 (air = 1.0)

**Density** 1.04 g/cm<sup>3</sup>

**Viscosity** >= 2 cp

#### Solubility(ies)

**Solubility (water)** Soluble in water

**Partition coefficient (n-octanol/water)** Not available.

#### Other data

**Evaporation rate** Not determined

**Oxidizing properties** Not determined

**Percent volatile** 1.35 % estimated

**VOC** < 147 g/l

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## 10. Stability and reactivity

**10.1 Chemical stability** Stable under recommended storage conditions.

**Hazardous decomposition products** Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

**10.2 Reactivity** Not available.

**10.3 Conditions to avoid** Not available.

**Possibility of hazardous reactions** Will not occur.

**Incompatible materials** Incompatible with strong bases and oxidizing agents.

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## 11. Toxicological information

**11.1 General exposure characteristics** Not available.

**11.2 Routes of exposure** Not available.

### 11.3 Affected/target organs, tissues and systems of humans

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

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**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

#### 11.4 Information on health hazards in case of direct exposure to the product and its effect

**Effect on upper respiratory tract irritation** Not available.

**Respiratory or skin sensitization** Not available.

**Respiratory sensitization** Based on available data, the classification criteria are not met.

**Skin sensitization** Based on available data, the classification criteria are not met.

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

#### 11.5 Information on long-term hazardous health effects

**Carcinogenicity** Based on available data, the classification criteria are not met.

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

2-pyrrolidone: This component showed developmental effects only at high doses that were toxic to pregnant test animals (OECD Testing Guideline 414: Prenatal Developmental Toxicity Study). Uptake by people of small doses is not expected to cause developmental toxicity. This component has not caused adverse effects on sexual function or damage to fertility in an animal study (OECD Testing Guideline 443: Extended One-Generation Reproductive Toxicity Study).

**Mutagenicity** Based on available data, the classification criteria are not met.

**Cumulativeness** Not available.

**Chronic effects** Not available.

**11.6 Acute toxicity data** Based on available data, the classification criteria are not met.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg

**Further information** Complete toxicity data are not available for this specific formulation  
Refer to Section 2 for potential health effects and Section 4 for first aid measures.

## 12. Environmental impact information

**Aquatic toxicity** Not expected to be harmful to aquatic organisms.

**12.1 General description of the impact on the environment** Not available.

**12.2 Routes of exposure to environment** Not available.

#### 12.3 The most important characteristics of the environmental impact

**12.3.1 Hygienic standards** Not available.

##### 12.3.2 Ecotoxicity

Product	Species	Test Results
X4E41Series		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) > 750 mg/l, 96 hours
Components	Species	Test Results

2-pyrrolidone (CAS 616-45-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> ) 13.21 mg/l, 48 hours

### 12.3.3 Biomigration and transformation of the environment due to the biodegradation or other processes

**Persistence and degradability** Not available.

#### Bioaccumulative potential

**Partition coefficient n-octanol / water (log Kow)**

2-pyrrolidone -0.85

**Mobility in soil** Not available.

**Other adverse effects** Not available.

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## 13. Recommendations for waste (residues) disposal

**13.1 Safety precautions when handling the waste generated during use, storage, transportation** Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.  
Do not allow this material to drain into sewers/water supplies.  
HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit <http://www.hp.com/recycle>.

**13.2 Information on the location and disposal methods, recycling or disposal of product waste, including packaging** Not available.

**13.3 Recommendation on the waste disposal generated during its domestic use** Not available.

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## 14. Transport information

### DOT

**UN number** Not available.  
**UN proper shipping name** Not Regulated  
**Transport hazard class(es)**  
**Class** Not available.  
**Subsidiary risk** -  
**Packing group** Not available.  
**Environmental hazards**  
**Marine pollutant** No  
**Special precautions for user** Not available.

### IATA

**UN number** Not available.  
**UN proper shipping name** Not Regulated  
**Transport hazard class(es)**  
**Class** Not available.  
**Subsidiary risk** -  
**Packing group** Not available.  
**Environmental hazards** No  
**Special precautions for user** Not available.

### IMDG

**UN number** Not available.  
**UN proper shipping name** Not Regulated  
**Transport hazard class(es)**  
**Class** Not available.  
**Subsidiary risk** -  
**Packing group** Not available.  
**Transport hazard class(es)**  
**Marine pollutant** No  
**EmS** Not available.  
**Special precautions for user** Not available.

### ADR

**UN number** Not available.  
**UN proper shipping name** Not Regulated  
**Transport hazard class(es)**  
**Class** Not available.  
**Subsidiary risk** -  
**Hazard No. (ADR)** Not available.  
**Tunnel restriction code** Not available.

<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No
<b>Special precautions for user</b>	Not available.
<b>Further information</b>	Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.
	Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable.

## 15. National and international regulatory information

### 15.1 National legislation

**15.1.1 Laws of the Russian Federation** Not available.

#### Federation

**15.1.2 Information about the documentation, regulatory requirements for the protection of human health and environment**

**Sanitary-Epidemiological Rules, 1.2.2353-08, Chemical substances, mixtures and products which are carcinogenic factors, 21 April 2008**

Not listed.

### 15.2 International Conventions and Agreements

All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Montreal Protocol

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

## 16. Other information

### 16.1 Information on revision of the SDS

<b>Issue date</b>	18-Dec-2017
<b>Revision date</b>	18-Jul-2020
<b>Version #</b>	11
<b>Previous SDS number</b>	Not applicable.

**16.2 List of references used in compiling the safety data sheet** Not available.

#### Disclaimer

This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

## Explanation of abbreviations

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-Term Exposure Limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds