



# MATERIAL SAFETY DATA SHEET

## 1. Chemical product and company identification

**A. Product name** Q2292Series

**B. Recommended use and Limitations on use**  
**Recommended use** Inkjet printing

**C. Supplier information**  
HP Korea House  
23-6 Yoido-dong  
Youngdeungpo-gu  
Seoul 150-742, Korea

**Telephone** (02) 2199-0114

**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

## 2. Hazards identification

### A. Hazard category/Classification

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**Environmental hazards** Not classified.

### B. Warning label items including precautionary statement

• **Pictogram** None.  
• **Signal word** None.  
• **Hazard statement** None.

• **Precautionary statement** None.

**C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)** Complete toxicity data are not available for this specific formulation.

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.

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.

**Supplemental information** None.

## 3. Composition/information on ingredients

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
Water		7732-18-5	KE-35400	75-85
2-pyrrolidone		616-45-5	KE-29978	<15
Carbon black		1333-86-4	KE-04682	<5
Isopropyl alcohol		67-63-0	KE-29363	<2.5

**Composition comments** This ink supply contains an aqueous ink formulation.

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

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#### 4. First aid measures

- A. In case of eye contact** 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.
- B. In case of skin contact** Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
- C. In case of inhalation** Move to fresh air. If symptoms persist, get medical attention.
- D. In case of swallowing** If ingestion of a large amount does occur, seek medical attention.
- E. Note to physician** Not available.
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#### 5. Fire-fighting measures

- A. Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** CO<sub>2</sub>, water, dry chemical, or foam
- Unsuitable extinguishing media** None known.
- B. Specific hazards arising from the chemical (example: hazardous combustion products)** Not available.
- C. Specific methods of fire-fighting**
- Special protective equipment for firefighters** None established.
- General fire hazards** Contact with skin and eyes may result in irritation.
- Specific methods** None established.
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#### 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency measures** Wear appropriate personal protective equipment.
- B. Environmental precautions** Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
- C. 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. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations.
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#### 7. Handling and storage

- A. Precautions for safe handling** Avoid contact with skin, eyes and clothing.
- B. Conditions for safe storage (including any incompatibilities)** Keep out of the reach of children. Keep away from excessive heat or cold.
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#### 8. Exposure controls/personal protection

**A. Exposure limit values, biological limit values, etc**

**Korea. OELs. Standards for Exposure to Chemical Substances and Physically Hazardous Factors**

Components	Type	Value
Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m <sup>3</sup>
Isopropyl alcohol (CAS 67-63-0)	STEL	980 mg/m <sup>3</sup>
	TWA	400 ppm 480 mg/m <sup>3</sup> 200 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m <sup>3</sup>	Inhalable fraction.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

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## Biological limit values

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
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Isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
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\* - For sampling details, please see the source document.

**Exposure guidelines** Exposure limits have not been established for this product.

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

### C. Personal protective equipment

- **Respiratory protection** Not available.
- **Eye protection** Not available.
- **Hand protection** Recommended gloves: Nitrile 4 mil minimum thickness.
- **Body protection** Not available.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### A. Appearance

**Physical state** Liquid.

**Form** Not available.

**Color** Black.

**B. Odor** Not available.

**C. Odor threshold** Not available.

**D. pH** 7.8 - 8.4

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

**F. Boiling point, initial boiling point, and boiling range** 200 °F (93.33 °C)

**G. Flash point** 131.0 - 136.0 °F (55.0 - 57.8 °C) Pensky-Martens Closed Cup

**H. Evaporation rate** Not determined

**I. Flammability (solid, gas)** Not available.

### J. Upper/lower limit on flammability or explosive limits

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

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

**Explosive limit - lower (%)** Not available.

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

**K. Vapor pressure** Not determined

### L. Solubility

**Solubility (water)** Soluble in water

**M. Vapor density** Not available.

**N. Specific gravity** 1 - 1.2

**O. n-octanol/water partition coefficient** Not determined

**P. Auto-ignition temperature** Not available.

**Q. Decomposition temperature** Not available.

**R. Viscosity** > 2 cp

**S. Molecular weight** Not available.

### Other data

**Bulk density** 1 - 1.2 gm/ml

**Oxidizing properties** Not determined

**VOC** < 116.6 g/l

## 10. Stability and reactivity

### A. Stability and hazardous reaction potential

**Stability** Stable under recommended storage conditions.

<b>Hazardous reaction potential</b>	Will not occur.
<b>B. Conditions to avoid (e.g. static discharge, shock or vibration, etc)</b>	Not available.
<b>C. Incompatible materials</b>	Incompatible with strong bases and oxidizing agents.
<b>D. Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## 11. Toxicological information

### A. Information on likely routes of exposure

- **Respiratory organs** Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- **Skin** Contact with skin may result in mild irritation.
- **Eyes** Contact with eyes may result in mild irritation.
- **Mouth** Health injuries are not known or expected under normal use.

### B. Information on health hazards

- **Acute toxicity (list all possible routes of exposure)** Based on available data, the classification criteria are not met.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<u>Acute</u>		
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg
Carbon black (CAS 1333-86-4)		
<u>Acute</u>		
<b>Oral</b>		
LD50	Rat	> 10000 mg/kg

- **Corrosivity or irritation to the skin** Based on available data, the classification criteria are not met.
- **Serious eye damage/eye irritation** Not classified as an irritant according to, OECD 405. Based on available data, the classification criteria are not met.
- **Respiratory sensitization** Based on available data, the classification criteria are not met.
- **Skin sensitization** Based on available data, the classification criteria are not met.
- **Carcinogenic properties /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.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

- **Mutagenic properties /Mutagenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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## 12. Ecological information

### A. Ecotoxicity

Product	Species	Test Results
Q2292Series		
<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
Isopropyl alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) > 1400 mg/l, 96 hours
<i>Acute</i>		
Algae	EC50	Algae > 1000 mg/l, 72 hours
Crustacea	EC50	Daphnia 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 9460 mg/l, 96 hours

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

**B. Persistence/degradability** No data is available on the degradability of this product.

### C. Bioaccumulative potential

Octanol/water partition coefficient log Kow	
2-pyrrolidone	-0.85
Isopropyl alcohol	0.05

**D. Mobility in soil** Not available.

**E. Other adverse effects** Not available.

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## 13. Disposal considerations

**A. Method of disposal** Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

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>.

**B. Disposal considerations (including disposal of contaminated containers or packaging)** No special precautions.

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## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### ADR

Not regulated as dangerous goods.

**Further information** Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

No ignition, sustained combustion, or flashing detected, using the Sustained Combustibility Test prescribed in the UN Manual of Tests and Criteria, Part III subsection 32.5.2. Refer to Dangerous Goods Regulations Section 3.3.1.3.

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## 15. Regulatory information

### A. Restrictions under the Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacturing

Not regulated.

**Harmful Substances Requiring Permission for Manufacture or Use**

Not regulated.

**Controlled Hazardous Substances**

ISOPROPYL ALCOHOL (CAS 67-63-0)

**Harmful Substances Requiring Special Medical Examination**

ISOPROPYL ALCOHOL (CAS 67-63-0)

**Workplace Environmental Monitoring Harmful Materials**

ISOPROPYL ALCOHOL (CAS 67-63-0)

**Occupational Exposure Limit**

CARBON BLACK (CAS 1333-86-4)

ISOPROPYL ALCOHOL (CAS 67-63-0)

**B. Restrictions under the Chemicals Control Law (Previously Toxic Chemicals Control Law)**

**Accidental Release Prevention Substances**

Not regulated.

**Observational Chemicals**

Not regulated.

**C. Restrictions under the Dangerous Substance Safety Management Act**

**D. Restrictions under the Wastes Control Act**

**Halogenated Materials in Waste Organic Solvents**

Not regulated.

**Hazardous Substances**

Not regulated.

**E. Restrictions under other foreign or domestic laws**

**Clean Air Conservation Act**

**Air Pollutants**

Not regulated.

**Specific Air Pollutants**

Not regulated.

**Act on the Registration and Evaluation of Chemicals**

**Banned Toxic Chemicals**

Not regulated.

**Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92)**

Not listed.

**Restricted Chemical Substances**

Not regulated.

**Toxic Chemicals**

Not regulated.

**Regulatory information**

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.

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**16. Other information**

<b>A. Source of information</b>	Not available.
<b>B. Issue date</b>	04-Jun-2015
<b>C. Number of revisions and date of most recent revision</b>	25-Oct-2018 (04 revision)
<b>D. Other</b>	Not available.

**Disclaimer**

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**Revision information**

9. Physical & Chemical Properties: Multiple Properties

**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