

HP 1918 Dye-based Black Print Cartridge

Supplied by

AMS Ltd - Mailing Equipment and Machines
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The HP Q2344A, 1918 Dye-based Black print cartridge achieves excellent decap times for intermittent printing conditions, and produces optimal image quality, print speed, and dry time on a wide variety of substrates.



Features

HP designed the Q2344A, 1918 Dye-based Black print cartridge specifically to support intermittent industrial printing on a wide variety of substrates: coated and uncoated papers, labels, and specialty media.

This dye-based ink optimally penetrates the surface of the substrate, producing sharp, crisp output without smearing or transfer—ideal for the packaging industry and other markets that need consistently robust results. On coated substrates, such as photo papers, this dye-based ink enhances the glossiness of the medium.

Higher decap times reduce nozzle dropouts in production environments with intermittent printing requirements.

Unlike some pigmented inks, the dye-based ink in this print cartridge is water-based, not solvent-based, so production facilities do not need additional ventilation, special chemical cleaners, or qualified service technicians who can handle solvents.

The Benefits

The Q2344A, 1918 Dye-based Black print cartridge is:

- Reliable. Higher decap times minimize servicing requirements between print jobs and ensure consistent high-quality output.
- Versatile. Prints on a wide variety of substrates, so customers have a greater range of media choices.
- Effective. 1918 Dye-based Black ink can be used on top of several types of offset inks, in knockout areas on porous packaging materials, and on ink-receptive coatings.
- Efficient. Drop-on-demand technology makes maximum use of ink supplied in the print cartridge.

Why choose HP?

HP is the worldwide leader in imaging and printing technologies. We bring our innovative, reliable, environmentally-friendly, and easy-to-use solutions to a variety of industrial markets. As pioneers of thermal inkjet printing, HP knows the technology inside and out.



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Frequently asked questions

Who are the intended users of the Q2344A?

The Q2344A, 1918 Dye-based Black print cartridge is specifically designed for companies that have intermittent printing requirements in industrial settings.

What are the key advantages of this print cartridge?

- Continuity of printing. Higher decap times ensure an immediate startup every time—virtually eliminating the need to service the printhead between print jobs.
- Excellent print quality. 1918 Dye-based Black ink produces sharp, crisp, durable output without smearing or transfer.

What are the advantages of HP Thermal Inkjet (TIJ) Technology?

- Cost-effective. Requires no warm-up cycle and no downtime. When it's time to replace a print cartridge, replace only the one that's needed.
- Easy to use. No special training is required to operate and maintain thermal inkjet printers. The print cartridge design allows it to be snapped in and out for easy replacement.
- Fast. Hundreds of tiny nozzles firing at a high frequency allow high-quality printing at high speeds.
- Reliable. TIJ is less sensitive to air bubbles in the firing chamber than other printing technologies, avoiding print quality problems and delays caused by trapped air.
- Flexible. Supports a wide variety of substrates.
- High quality. TIJ places smaller drops more accurately, producing consistently superb image and text quality.
- Environmentally safe. With thermal inkjet, there is no need for service technicians qualified to handle volatile solvents, and no noxious fumes.
- Lower cost of ownership. A thermal inkjet printer can cost tens to hundreds of thousands of dollars less than other printing equipment, reducing the market entry cost.

Technical specifications

P/N	Q2344A
Ink type	1918 Dye-based Black aqueous ink
Resolution	600 dpi
Nozzle count	300
Print swath	.5 in
Maximum firing frequency	12 kHz
Avg. drop volume	29 pl
Avg. delivered ink (ccs)	40 ccs
Number of electrical interconnect pads	52
Operating conditions	10 to 40° C, 10 to 80% RH
Shipping/storage conditions (in original packaging only)	10 to 30° C, 5 to 80% RH Altitude: 0 – 5000 meters Orientation: nozzle up or side

Contact information

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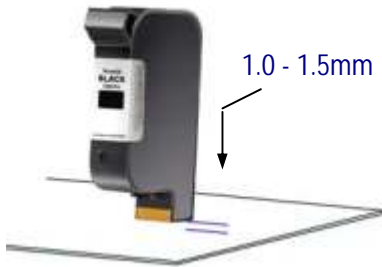
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Print Cartridge Maintenance and Handling

Nozzle-to-Paper Distance

One of the most important keys to having crisp, sharp text (and graphics) is setting the proper nozzle-to-paper distance. HP recommends a nozzle-to-paper spacing of **1.0mm to 1.5 mm**. Higher nozzle-to-paper spacing degrades print quality (fuzzy text), because the ink droplet is less likely to hit the targeted area of the paper.

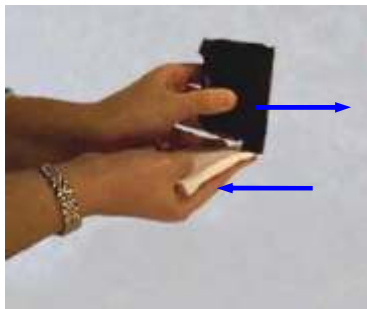


Print Cartridge Cleaning

Wiping:

Another key to maintaining good print quality is proper cleaning of the print cartridge. During printing ink-spray, paper fibers and dust can build up on the print cartridge. These can eventually degrade the print quality. When this occurs, the print cartridge should be wiped with a wet fiberless cloth.

Wipe slowly across the long-axis with the print cartridge facing down (as shown). Do not apply excessive force, as this could scratch the nozzle area.



A Cloth Should Be:

- v Soft
- v Fiberless
- v Moist with water (de-ionized is best, but tap works)

Should NOT Be:

- x Abrasive
- x Made of small fibers
- x Dry or containing chemical additives

The cloth must be soft so that it does not scratch the print cartridge. It should be fiberless because small fibers from the cloth can be left behind and block the nozzles of the print cartridge. The cloth must be moistened with liquid or it may scratch the print cartridge. Scratches on the print cartridge prevent the ink from coming out of the nozzle straight. If the ink drops do not come out of the nozzles straight they will not land on the paper in the proper place causing fuzzy text. De-ionized water is better than tap water because tap water contains minerals that can leave behind deposits in the chambers. During wiping the water

cleans out the nozzles and the firing chambers. A small amount of water mixes with the ink in the chambers.

Purging the Nozzles:

If the print cartridge sits inactive for a period of time, ink may dry in the nozzles. Dried ink clogging a nozzle is called an ink plug. As a result of the ink plug, white streaks will be visible in the printed text or graphic. Printing alone may not remove ink plugs from the nozzles. To obtain better print quality, purge the ink plug. This is accomplished by wiping the nozzle plate until ink is drawn out and absorbed into the cloth. Then print a few lines of text or graphics at high resolution.

Procedure:

This purging operation as well as wiping the print cartridge with a wet cloth should be done after every extended period of down time in order to prevent unacceptable levels of print quality.

- Wipe the print cartridge with a moist cloth (see wiping procedure).
- Print a few lines of text in a higher resolution (for example 600x600 dpi). The higher resolutions (for example 600 dpi) exercise more nozzles and push more ink out.

Storage

Short-term Storage (Less than 2 days)

- Simply leave the print cartridge in the machine, capped or uncapped.
- The next time that the printer is used, the print cartridge may have to be wiped and purged.

Long-term Storage (Greater than 3 days)

- If the printing system has a capping station, just leave the print cartridge capped.
- If the printing system does not have a capping station do the following:
 - Keep the print cartridge in an area that is relatively dust-free and that is not too dry, **or**
 - Place the print cartridge in a Tupperware container with a damp sponge to prevent drying out.
- When the print cartridge is ready to be used again the print cartridge may need to be cleaned as instructed earlier.

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Material Safety Data Sheet

1.0 Product and Company Identification

Identification of the preparation: **Q2344A Black**

Use of the preparation: **Inkjet printing**

Company Identification: Hewlett-Packard Company
1000 NE Circle Boulevard
Corvallis, Oregon 97330-4239
United States

Emergency telephone number 1-800-457-4209 (USA and Canada)
Hewlett-Packard Health Effects Line: 503-494-7199 (USA direct)
Singapore: +001-800-332-13321

General information telephone number: 208-323-2551 (USA direct)

Local Contact Information:

Ireland
Liffey Park Technology Campus
Barnhall Road,
Leixlip, Co. Kildare
Phone: 01 6150000

United Kingdom
Hewlett-Packard, Ltd.
Cain Road, Amen Corner
Bracknell, Berkshire, RG12 1HN
Phone: 1344 36-0000

Hazard Rating	NFPA/HMIS
Health	1
Flammability	1
Instability/Reactivity	0
Special	none

2.0 Composition/Information on Hazardous Ingredients

This ink cartridge contains an aqueous ink formulation

Component/Substance	CAS Number	EU Number	% by Weight	EU Classification
2-Pyrrolidone	616-45-5	210-843-1	<10	Xi; R36/37/38
Ethyl alkyldiol	confidential	confidential	<6	not classified
Azonaphthalene-sulfonate salt	confidential	confidential	<6	Xi; N; R41-51/53
Water	7732-18-5	231-791-2	>50	not classified



Material Safety Data Sheet

3.0 Hazard Identification

The black ink is classified for environmental effects according to EU Directive 1999/45/EC with R52-53.

Routes of Exposure: 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.

Acute Health Hazards: Any potential hazards are presumed to be due to exposure to the components.

2-Pyrrolidone: Contact with eyes and skin may result in irritation. Inhalation may result in respiratory irritation.

Ingestion may result in nausea, vomiting, and diarrhea.

Ethyl alkyldiol: Contact with eyes and skin may cause mild irritation.

Azonaphthalenesulfonate salt: Contact with eyes may result in serious damage and irreversible eye coloration.

Chronic Health Hazards: None known

Carcinogenicity: None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

4.0 First Aid Measures

Emergency telephone number 1-800-457-4209 (USA and Canada)

Hewlett-Packard Health Effects 503-494-7199 (USA direct)

Line: Singapore: +001-800-332-13321

Inhalation: Remove to fresh air. If symptoms persist, consult a physician.

Ingestion: If stomach upset persists, consult a physician.

Skin: Wash affected areas thoroughly with soap and water. If irritation persists, consult a physician.

Eyes: Do not rub eyes. Immediately flush with large amounts of clean, lukewarm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists, consult a physician.



Material Safety Data Sheet

5.0 Fire Fighting Measures

Extinguishing media: Water, dry chemical, carbon dioxide, foam

Unsuitable Extinguishing Media: None known

Special Firefighting Procedures: None known

Unusual fire and explosion hazards: No special hazards known

Auto-ignition temperature: Not determined

Flashpoint (method): > 200° F, > 93.3° C (US EPA Method 1020)

Hazardous Combustion Products: Refer to section 10

6.0 Accidental release measures

Spill or Leak Procedures: Standard eye and skin protection is recommended.

Environmental precautions: Do not discharge into drains (See also Section 13, Disposal considerations)

7.0 Handling and Storage

Storage Temperature: 59°F to 95°F; 15°C to 35°C

Handling and Storage precautions: Keep out of the reach of children. Keep away from extreme heat or cold.

Shelf Life: 3 years

Special Sensitivity: None

8.0 Exposure control/ personal protection

Exposure Limit Values: None established

Exposure Controls: Standard eye and skin protection for laboratory chemical safety is recommended. Use in well ventilated area.

9.0 Physical and chemical properties

pH: 7.5 – 8.0

Boiling point: Not Determined

Flash point: > 200° F, > 93.3° C

Flammability: US NFPA/HMIS Flammability rating = 1

Explosive properties: Not applicable



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15.0 Regulatory information

US EPA TSCA Inventory: All ingredients are listed or exempt.

US EPA TSCA 12(b): Does not contain listed chemicals.

EU Notification: All ingredients are listed on EINECS and/or ELINCS or exempt.

EU Hazard Label (1999/45/EC): May require a label according to EU Directive 1999/45/EC.

16.0 Other information

Date Prepared: September 26, 2003

HP-DMS Document Control 09000de78022e7a2-eng

Number:

Revision Information:

EU Risk (R) Phrase definitions: R41: Risk of serious damage to eyes
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R36/37/38: Irritating to eyes, respiratory system and skin.

Other Information: This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC and USA OSHA Hazard Communication Standard (29CFR1910.1200).

DISCLAIMER: This Material Safety Data Sheet (MSDS) is provided without charge to customers of Hewlett-Packard. Data is the most current known to Hewlett-Packard at the time of preparation of this MSDS 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.

AMS INKJET PRINTERS

Leading the way.



AJ1000



AJ300 / AJ500

If you are a Printer or Finisher that's moving into direct mail or simply need to print fixed, variable data or graphics onto paper, sheets or envelopes then AMS may have a printing solution for you.

Using HP technology, a variety of quick drying inks, up to 600 dpi print quality, all installed true type fonts, and nearly all windows operating systems means that AMS printers are simple to use and will ensure you can keep your margins high by keeping your clients work in-house.



AJ2600 / AJ2800



FF14 Feeder

AJ3600 / AJ3800

At speeds of up to 30,000 per hour, print areas from 1.5" to 4", black & colour inks and either off-line or on-line printing an AMS Inkjet Printer will give your company the edge.

To find out more about saving money and providing an improved service for your clients simply contact us, we can give you sound advice or a no obligation demonstration of the equipment in your own premises.



Image Blaster



Complete system with vacuum shuttle feeder vacuum base and dryer

AMS are suppliers of Addressing Printers, Envelope Inserters, Poly-wrapping Machines, Label Printers, Mailsort Software, Mailroom Supplies and field service support.

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