Data sheet

Understanding UV Ink Regulations and Certifications

What they mean for your operations and your printed products

The inks you use in your printing operations can have a huge effect on your production facility, and the environmental profile of your printed products. Beyond complying with all the relevant regulatory requirements, your printed signage, packaging and display products need to support your customers' own goals regarding the environmental profile of their products.

HP takes its responsibilities to health, safety and the environment extremely seriously. In developing inks, HP takes into account numerous factors, including ink performance and shelf life, operator safety and convenience, public health and comfort, and environmental impact.

As a market leader, HP was the first to certify UV curable inks for indoors environmental standards.[1] And, HP continues to drive for continuing environmental, health and safety improvement. For example, with the HP Scitex HDR family of UV-curable inks, HP introduced clean ink replacement, to avoid spill offs and to protect users from exposure to uncured inks.

The difference between liquid and cured Ink

It is important to understand the difference between liquid inks and cured inks, as different regulations and safety considerations apply depending on the ink state.

HP Scitex UV-curable inks are supplied by HP in liquid form. They are packaged in containers designed for safe transportation, storage and use while in their liquid form. During the printing process, the inks remain in liquid form until they are jetted through the print head nozzles onto the substrate. The inks are then immediately cured by UV light, at which point they are no longer liquid; they are then referred to as cured inks.

[1] Prints produced with HP TJ210, FB225 and HDR Scitex Inks on low-emitting media have been GREENGUARD Gold (previously called Greenguard Children & Schools Certification) Certified℠ since October, 2011.

Compliance of liquid inks

In their liquid form, HP Scitex UV-curable inks comply with all the relevant regulatory requirements:

- All HP Scitex UV inks comply with the latest REACH requirements.[2]
- Substances listed in the RoHS directive are not present in any HP Scitex UV inks at levels that exceed the specified thresholds.[3]
- HP Scitex UV ink labels are aligned with and display the red-framed pictograms established by the United Nations as part of the Globally Harmonized Systems (GHS) framework for classification and hazard communication of chemicals.[4]
- The safety data sheets (SDS) or material safety data sheet (MSDS) for HP Scitex inks also follow GHS framework guidelines.[5]

Certification of cured UV inks

In their cured form, all HP Scitex UV inks carry various environmental certifications relating to the use of printed output in indoor environments. Using UV inks that carry environmental certifications for the cured inks can enhance the appeal of your printed products among brand owners and other customers concerned with the environmental profile of their products. In addition, environmental certifications can be a requirement for applications that are commonly used indoors, such as in retail environments, hospitals, and schools.

The main environmental certifications carried by specific HP Scitex UV inks are issued by the following organizations:

- **GREENGUARD –** The Greenguard Environmental Institute is an ISO-IEC Guide 65:1996 accredited body that certifies products and materials for low chemical emissions. It is part of UL Environment, a unit of UL (Underwriters Laboratories).[6] The certifications available are:
  - **Greenguard Indoor Air Quality Certification** – This certifies products that meet strict chemical emissions limits and are designed for use in office environments and other indoor spaces.
  - **GREENGUARD GOLD Certification** – Previously called Greenguard Children & Schools Certification, this certification addresses the indoor air quality needs of schools, daycare centers, and other sensitive environments in which children spend a lot of time.[7]
- **AgBB** – The AgBB standard is a European criterion for health-related evaluation of VOC emissions of indoor building products. AgBB testing procedures and standards are regarded as an international standard for health-related VOC emissions.[8]
- **Low-odor** – Essential for sensitive indoor applications, low-odor prints are tested according to the DIN EN 1230-1 standard.[9]
- **Deinkability/ Recyclability** – This certifies products that are deinkable and recyclable in standard paper mill recycling processes.[10]

[2] REACH is the European Union regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals. Certifications are on file at HP and available by request. HP is responsible to maintain compliance and meet the deadlines for registrations as defined under REACH.

[3] RoHS is short for the Restriction of Hazardous Substances Directive 2002/95/EC. The six RoHS substances (lead, chromium VI, cadmium, mercury polybrominated biphenyls [PBB] and polybrominated biphenyl ethers [PBDE]) are not directly added as ingredients to HP Scitex inks. Levels of the metals chromium, cadmium, lead and mercury did not exceed the accepted threshold of 0.00001% for these metals. At this time, consumables are not addressed under the RoHS Directive (2002/95/EC), and as such, are exempt from the RoHS compliance criteria.

[4] In the EU, this framework has been adopted as Classifications, Labeling and Packaging (CLP) Regulations.

[5] For more information about HP's SDS or MSDS, go to hp.com/hpinfo/globalcitizenship/environment/productdata/lfmsdsuseng.html

HP TJ210, FB225 and HDR Scitex Inks for the HP Scitex Presses have achieved GREENGUARD GOLD Certification.[6]

HP HDR Scitex Inks have been independently tested by Papiertechnische Stiftung (PTS) for Deinking and Recyclability and are certified per INGEDE Method 11.[11]

The following cured HP Scitex UV inks carry indoors environmental certifications:

	HP TJ210 Scitex Inks	HP FB225 Scitex Inks	HP HDR230 Scitex Inks	HP HDR245 Scitex Inks	HP HDR250 Scitex Inks
GreenGuard Indoor Air Quality Certification	✓	✓	✓	✓	✓
GREENGUARD GOLD / Greenguard Children & Schools Certification	✓	✓	✓	✓	✓
AgBB compliance		✓	✓	✓	✓
Deinking/ Recyclability			✓		
Low Odor			✓	✓	

For more information about certification of cured HP Scitex UV inks, or about classification and labeling relating to liquid HP Scitex UV inks, contact **environment@hp.com**

For more information about HP's Environmental Programs, go to **hp.com/environment**

[6] GREENGUARD GOLD Certification to UL 2818 demonstrates that products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg or greenguard.org . For additional information regarding our ink testing process, see our ink datasheets at hp.com/go/scitex

[7] Using GREENGUARD GOLD Certified inks does not indicate the end product is certified.

[8] AgBB compliance evaluation was conducted during a 28-day test period at UL Environment Inc. labs. For more information, visit umweltbundesamt.de/en/topics/health/commissions-working-groups/ausschuss-zurgesundheitlichen-bewertung-von. Using inks that meet AgBB criteria does not indicate the end product meets the criteria.

[9] HP HDR230 Scitex Inks and HP HDR245 Scitex Inks are formulated to produce low-odor prints that are tested according to the DIN EN 1230-1 odor standard for paper and board intended to come into contact with foodstuffs. Print odor is rated on a scale of 0 (no perceptible odor) to 4 (strong odor). Print odor with HP HDR230 Scitex Inks at POP Production is rated 1-2 for prints produced in matte mode. Odor test results validated by internal HP testing.

[10] Prints made with HP HDR230 Scitex Inks on Ekman GMWM130, 130 g/m^2 coated media have been independently tested by Papiertechnische Stiftung (PTS) and have been certified as having "Good Deinkability" according to the European Recovered Paper Council (ERPC 2009) Deinking Scorecard and INGEDE Method 11 (PTS Test Report No. 20874-2, May 2015). In addition, prints made with HP HDR230 Scitex Inks on PWell E-Flute corrugated board with Graph+ liner media have been independently tested by Papiertechnische Stiftung (PTS) per the PTS-RH 21/97 method for recyclability and are considered "conditionally recyclable," which can be effectively improved by dispersion (PTS Test Report No. 20874-1, May 2015).

[11] Prints made with HP HDR230 Scitex Inks on Ekman GMWM130, 130 g/m^2 coated media have been independently tested by Papiertechnische Stiftung (PTS) and have been certified as having "Good Deinkability" according to the European Recovered Paper Council (ERPC 2009) Deinking Scorecard and INGEDE Method 11 (PTS Test Report No. 20874-2, May 2015). In addition, prints made with HP HDR230 Scitex Inks on PWell E-Flute corrugated board with Graph+ liner media have been independently tested by Papiertechnische Stiftung (PTS) per the PTS-RH 21/97 method for recyclability and are considered "conditionally recyclable," which can be effectively improved by dispersion (PTS Test Report No. 20874-1, May 2015).

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