

HP A50 Inks and Bonding Agent

Summary of Regulatory Compliance and Environmental Attributes



Introduction

HP A50 Inks and Bonding Agent are water-based formulations designed by HP to meet worldwide regulatory requirements and to address a broad range of health and environmental considerations throughout the entire life cycle of a print from production to disposal.

Regulatory Summary

Chemical Inventory Status

The following countries have chemical inventory requirements, and the HP A50 Inks and Bonding Agent can be imported without restriction:

- Australia (AICS)
- Province of Ontario
- China (IECSC)
- Korea (KECI)
- New Zealand (NZIoC)
- Philippines (PICCS)
- Switzerland (ChemO)
- Taiwan (ECSI)
- United States (TSCA)

For EU REACH, HP has completed all necessary pre-registrations/registrations to import the HP A50 Inks and Bonding Agent.

Regulated Materials

HP A50 Inks and Bonding Agent do not contain the following regulated materials:

- Arsenic, antimony, soluble barium, cadmium, chromium, cobalt, mercury, lead, nickel, copper¹, and selenium as intentionally added ingredients
- Restricted azo colorants²
- Substances regulated as drugs and drug precursors or those requiring special permits for use
- Substances currently regulated under Annex XIV of EU REACH (authorisations) or substances currently restricted under Annex XVII of EU REACH (restrictions)
- Phthalates as intentionally added ingredients or as known contaminants
- Asbestos as an intentionally added ingredient

¹ Copper is only present in the cyan ink and is present in a bound form as copper pthalocyanine.

² EU Directive 2002/61/EC, additionally referenced as Regulation (EC) No 1907/2006: REACH, Annex XVI (article 67), restricts the use of azo colorants that break down to aromatic amines known to cause cancer.



Health and Environmental Performance

Emissions

These inks do not contain Hazardous Air Pollutants (HAPs)³. HP A50 Inks and Bonding Agent allow HP customers to produce odorless prints.

Volatile Organic Content (VOC) content for A50 inks and bonding agent is <300 gram/liter (by EPA Method 24). VOC emissions are very low, for example when compared to typical offset lithography emissions. Additional emissions data, generated in accordance with EPA Method 25, is available upon request. Cleaning and maintenance procedures are designed for minimal VOC emissions and comply with regulations in the United States.

Human and Ecological Health

HP A50 Inks and Bonding Agent are considered non-hazardous according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS, as implemented by the EU Classification, Labeling and Packing Regulation No1272/2008/EC (CLP)), US HazCom 2012, and other country-specific GHS regulations.

HP A50 Inks and Bonding Agents do not contain intentionally added components in the following categories:

- Carcinogens, mutagens, or reproductive toxicants (CMRs);
- California Proposition 65 listed chemicals at concentrations requiring labeling;
- Intentionally added substances identified as endocrine disruptors;
- Substances considered very toxic or toxic;
- Substances classified as respiratory sensitizers;
- Substances identified as "very high concern" (SVHC) according to EU REACH criteria; and
- Substances identified as "very persistent and/or very bioaccumulative" (VPVB) according to EU REACH criteria.

Transportation and Waste

HP A50 Inks and Bonding Agent are non-flammable, non-combustible⁴, and do not require special handling, storage, or transportation-related conditions. These formulations are not classified as Dangerous Goods in accordance with international modes of transport (IATA, IMDG, U.S. DOT, and/or ADR) and do not contain listed marine pollutants.

³ HP A50 Inks and Bonding Agent were tested for Hazardous Air Pollutants, as defined in the Clean Air Act, per U.S. Environmental Protection Agency Method 311 (testing conducted in 2013) and none were detected.

⁴ Water-based HP A50 Inks and Bonding Agent are not classified as flammable or combustible liquids under the USDOT or international transportation regulations. Testing per the Pensky-Martins Closed Cup method demonstrated flash point greater than 110° C.



HP A50 Inks and Bonding Agent do not contain the following substances and/or characteristics associated with hazardous waste:

- Regulated Metals: Arsenic, antimony, soluble barium, cadmium, chromium, cobalt, mercury, lead, nickel, copper⁵, and selenium as intentionally added ingredients
- Regulated Organics⁶
- Halogenated Organic Compounds
- Human health and/or ecological toxicity characteristics impacting waste profile

Deinkability

HP A50 inks in the T-Series Color Inkjet web presses have been shown to have “Good Deinkability” across a wide range of papers per Ingede Method 11 and ERPC (European Recovered Paper Council) Scorecard. In addition, HP A50 inks are qualified for Nordic Swan for Printing Companies, which has specific deinkability requirements. For details go to <https://www8.hp.com/us/en/commercial-printers/pagewide-industrial/products.html>.

Specialty Applications

Food Packaging

HP A50 Inks are intended for printing on the non-food contact surface of corrugated paperboard packaging and can comply with US & European regulations and industry guidance

- US FDA 21CFR parts 170-199 (incl. 174.5 for GMP)
- EU Framework Regulation 1935/2004/EC (incl. EC GMP 2023/2006)
- Article 26(i) of the Swiss Ordinance 817.023.21
- EuPIA Guideline on Printing Inks 2011 (& EuPIA Guidance 3rd Revised Version for GMP)
- Nestle guidelines (2014)

HP A50 Inks have been assessed for paper-based food packaging applications in Europe and the United States. Migration test reports are available upon request. HP will provide necessary information to support customer’s specific application or brand requirements.

Children’s Books

Books produced using HP A50 Inks and Bonding Agent can be considered for use as children’s products. The A50 Inks and Bonding Agent do not require testing for compliance with the lead content limit because the Consumer Product Safety Commission (CPSC) determined that these materials consistently meet the CPSIA lead content limit and are, therefore, exempt from any related testing requirements. Additionally, HP confirms that the A50 Inks and Bonding Agent supplied do not contain > 0.1 ppm of lead⁷.

Certifications

HP A50 Inks and Bonding Agent have qualified for certifications that demonstrate they meet some of the most rigorous and comprehensive indoor air quality standards for low chemical emissions.

⁵ Copper is only present in the cyan ink and is present in a bound form as copper pthalocyanine.

⁶ California regulated organics list for hazardous waste.: California Code of Regulations, Title 22, Chapter 11, Article 3.

⁷ Compliance under the Labeling of Hazardous Art Materials Act (LHAMA) (15 U.S.C.1277) requires the submission of art material product formulations to a toxicologist for review to assess chronic adverse health effects through customary or reasonably foreseeable use. This statement in no way addresses compliance with LHAMA or other regulations outside of the CPSIA, section 1500.





HP A50 Inks and Bonding Agent meet the criteria and is registered with Nordic Swan for Printing Companies.

Recyclability

All HP A50 Ink and Bonding Agent printheads can be recycled through the HP Planet Partners Program.⁸

HP's recycling program, HP Planet Partners, allows easy recycling of HP A50 ink printheads for free. Since the program began in 1991, customers have returned more than 500 million HP ink and LaserJet cartridges for recycling worldwide. HP's multi-phase "closed loop" recycling process uses cartridges returned through HP Planet Partners as raw material to produce new Original HP ink and LaserJet cartridges. For more information visit the HP Supplies Recycling page:

<http://intranet.hp.com/ipg/ams/ipga-marketing/Environmental-Leadership/Pages/default.aspx>

All HP A50 Ink and Bonding Agent 200 liter drums and totes can be recycled through National Container Group. <http://www.nationalcontainer.com/de/en/home.3532.html>

HP Design for Environment (DfE) Program

In 1992, HP adopted a pioneering company-wide Design for the Environment program that considers environmental impact in the design of every product and solution, from the smallest ink cartridge to entire data centers.

For more information about HP's social and environmental responsibility programs, see www.hp.com/livingprogress.

⁸ Visit hp.com/recycle to see how to participate and for HP Planet Partners program availability; program may not be available in your area. For countries where this program is not available, and for other consumables not included in the program, consult your local waste authorities on appropriate disposal.

