Original HP toner cartridges for use with the HP Color LaserJet Pro M452dn* offer a wide variety of safety and environmental features. For this, HP considers own HP standards, requirements of mandatory regulations, and voluntary certification criteria. Main requirements are summarised in HP’s General Specification for the Environment (GSE). Accordingly, HP strongly recommends that users apply only original HP cartridges to ensure safe and sustainable operation of their HP printing system.

Firm precautions ensure safe products

**EU and US classification** – HP toner mixtures used with HP Color LaserJet Pro M452dn devices are not classified as hazardous according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)\(^\text{11}\) as well as the assessment criteria for mixtures in the European Union (Regulation (EC) No 1272/2008, as amended)\(^\text{12}\) and applicable requirements in the United States (OSHA CFR 1910.1200, as amended)\(^\text{13}\). Accordingly, they are neither classified nor labelled as toxic, carcinogenic, mutagenic, toxic to reproduction, sensitising or corrosive.

**REACH compliance** – HP is committed to meeting all applicable REACH requirements and providing customers with information about the chemicals in our products as needed to comply with REACH\(^\text{4}\) – including original HP toner cartridges for the HP Color LaserJet Pro M452dn.

**RoHS conformity** – Where countries apply materials restrictions on electrical and electronic equipment to toner cartridges (such as the European Union’s RoHS Directive 2011/65/EU), HP is committed to meeting all applicable materials restrictions and documentary requirements by the relevant deadlines.
GSE fulfilment – Original HP toner cartridges for the HP Color LaserJet Pro M452dn meet a variety of strict substances and materials restrictions according to our General Specification for the Environment (GSE). The GSE is a series of standards which defines HP’s global product environmental requirements, applies HP-wide, and contributes to our commitment to global citizenship.

Return and recycling instead of landfill disposal

Designed for recycling – HP toner cartridges are designed with a view to easy disassembly and a reduction of the number of parts used. Parts of original HP toner cartridges for HP Color LaserJet Pro M452dn devices greater than 25 grams in weight are marked with internationally recognised ISO symbols for ease of materials identification.

Toner cartridge return options – HP helps you recycle your original HP toner cartridges—it’s easy and free with the HP Planet Partners programme available in more than 60 countries and territories around the world.\(^5\)

Closed-loop recycling process – Original HP toner cartridges returned through HP Planet Partners go through a multiphase recycling process and are reduced to raw materials which can then be used to make new products, such as original HP toner cartridges. You can be confident that original HP toner cartridges recycled through HP Planet Partners are never refilled, resold, or sent to a landfill.\(^5\) Meanwhile, 100% of HP toner cartridges contain 10–33% recycled content.\(^5\)

External proof of sound performance

For meeting more than a hundred criteria, HP Color LaserJet Pro M452dn printing systems are certified with the internationally renowned Blue Angel eco label according to DE-UZ 205 (formerly RAL-UZ 205) in Germany.\(^7\) This includes original HP toner cartridges and toners which are part of Blue Angel evaluation. Accordingly, these toners are required to not contain substances classified as carcinogenic, mutagenic to germ cells, or toxic to reproduction as intentionally added constituents. Also, they are required to not contain azo dyes that can release carcinogenic aromatic amines according to REACH Regulation\(^8\), while organotin compounds, cobalt and nickel oxides content has to be as low as reasonably achievable. Photoconductor drums are required to not contain intentionally added selenium, lead, mercury or cadmium or any of their compounds as constituents.\(^9\)

The HP Color LaserJet Pro M452dn is certified with the Blue Angel eco label according to DE-UZ 205 in Germany.

Please note that alternative eco labels for refilled and remanufactured toner cartridges do not require the same safety and environmental performance as the Blue Angel awarded for HP printing systems. In fact, they offer less and often significantly weaker criteria compared to those for HP printing systems and their toner cartridges.

Stringent requirements for suppliers and manufacturing

HP toners for the HP Color LaserJet Pro M452dn are manufactured following precisely defined formulations using only raw materials from carefully chosen and contracted suppliers in order to achieve high product quality. Manufacturing is conducted in production sites that are ISO certified (ISO 14001, environmental management system) and that include worldwide accepted ISO requirements in the quality management system (ISO 9001:2000, quality assurance in production) or an equivalent programme.
Respective suppliers are committed to comply with our high safety and environmental GSE standards (see above). HP's active verification process to prevent the use of non-compliant material in the products is based on our risk analysis of restricted substances entering the supply chain and includes technical documentation outlined in the European Union's EN 50581:2012 standard.

Check for potential substances and particles release

When original HP toner cartridges are used as intended to operate HP Color LaserJet Pro M452dn devices, emissions testing assessment shows compliance with relevant occupational and indoor air requirements. In addition, for HP Color LaserJet Pro M452dn printing systems, HP can confirm compliance with the strict criteria for substances and particles release of the German Blue Angel eco label(10)(11). In detail, this includes potential release of TVOCs, benzene, styrene, unidentified VOCs, ozone and particles.

Don't compromise on safety and the environment

If users want to be sure to get the safety and environmental performance outlined above, HP recommends operating the HP Color LaserJet Pro M452dn with original HP toner cartridges only.

Alternative non-HP products might significantly alter the behaviour of your HP printer. To ensure users can consider all safety and environmental related aspects at any time, HP makes information on relevant testing of HP original toner cartridges readily available.

Further details if you want to know more

In-depth information on your particular original HP toner cartridges for HP Color LaserJet Pro M452dn devices is listed in the following Safety Data Sheets (SDS)** which are available on the HP website:

• SDS for HP toner cartridge HP 410A and HP 410X black – no. CF410A-X-XC
• SDS for HP toner cartridge HP 410A and HP 410X cyan – no. CF411A-X-XC
• SDS for HP toner cartridge HP 410A and HP 410X yellow – no. CF412A-X-XC
• SDS for HP toner cartridge HP 410A and HP 410X magenta – no. CF413A-X-XC

For HP Color LaserJet Pro M452dn devices certified with the Blue Angel eco label in Germany, Blue Angel user information documents also provide further details on the particular devices’ environmental performance when operated with original HP printing supplies. The documents can be accessed on the Blue Angel User Information documents subpage on the HP website, the Blue Angel website or by clicking the following links:

• Blue Angel user information for HP Color LaserJet Pro M452dn

More information on the Blue Angel and certified HP products is available on the Blue Angel section of the HP website.

* Please note that there are HP printing systems which are available in certain geographies and/or for certain customer segments only.

** The compilation of the listed SDSs is not exhaustive and selected based on the following settings from the HP website: Germany/English (country/language).
Supporting references: