

FAQ EU Drinking Water Directive (DWD) and EU Positive List

Part I: General

Why is the European Commission revising its Drinking Water Directive (DWD)?

The European Commission wants to continue to ensure the provision of high-quality drinking water, taking into consideration the latest scientific recommendations. Safe drinking water is essential for public health and well-being, and water contamination or shortages can have serious social and economic costs. The DWD aims to protect human health from potential dangers arising from the quality of drinking water.

The new, revised DWD 2020/2184 (an update from the original 1998 DWD) became effective in 2021 and was mandatory to implement by 12 January 2023 in all EU member states.

What is new and revised about this EU DWD 2020/2184?

The updated EU Drinking Water Directive (DWD 2020/2184) modernizes the 1998 standards, setting new requirements for materials in contact with drinking water across the EU. It aims to improve drinking water quality standards by introducing updated microbiological, chemical, and indicator parameters, including new requirements for lead migration at the tap. Article 11 of the EU DWD specifies the hygiene requirements for these materials, ensuring safer water for human consumption. This revision aims for higher water safety and quality, reflecting advancements in water science and health knowledge.

What is the relation between the EU Positive List and the EU Drinking Water Directive (DWD)?

The EU Positive List and Article 11 of the Drinking Water Directive (DWD) collectively ensure the safety and quality of drinking water. The Positive List (incorporating national positive lists, e.g. UBA), managed by the European Chemicals Agency (ECHA), specifies approved substances for water-contact materials like pipes and fittings.

This list, being finalized into law by December 31, 2026, complements the DWD's Article 11, which mandates hygiene requirements for these materials. Together, they aim to prevent harmful substances from leaching into drinking water, safeguarding it from source to tap. This integrated approach aligns with the broader goal of maintaining high water quality standards across the EU.

How do both the EU DWD and Positive List address the issue of lead in materials such as pipes and fittings?

The EU DWD and the EU Positive List work together to limit lead in materials that contact drinking water. The DWD sets a maximum lead level of 5 micrograms per liter at the tap. Meanwhile, the Positive List specifies allowable substances for producing these materials, with a lead content of maximal 0,1% weight by weight. This coordination ensures the European Union's drinking water safety and quality by preventing lead contamination from source to consumption.

How does the new EU DWD address lead in drinking water?

The directive establishes a maximum allowable concentration for lead in drinking water at the tap at 5 micrograms per liter ($\mu\text{g/L}$) to protect public health, with a long-term objective of reducing this limit even further. The new limit is half of the current limit of 10 $\mu\text{g/L}$.

What is the timeline for implementation of the revised EU Drinking Water Directive?

The new limit of 5 $\mu\text{g/L}$ will not apply immediately, but after a period of ultimately 15 years from the date of entry into force of the DWD, which was on 12 January 2021.

By January 2036 the levels of 5 micrograms per liter must have been achieved by all EU member states. During this transition period, the current limit of 10 µg/l can be maintained, but the individual EU member states can decide themselves to implement before the deadline of January 2036.

The transition period is created to allow Member States to take measures to reduce lead exposure, for example, replacing lead pipes, providing information to consumers, and monitoring the quality of water.

What is the timeline for implementation of the EU Positive List?

The EU Positive List will apply to products launched after December 2026. Existing products with national approval by this date have until January 2032 to comply unless national authorities opt for an earlier transition to the European system.

Starting from December 2026, only those products that comply with the newly established EU Positive List criteria will be eligible for certification in drinking water applications. This includes adhering to specified limits, such as a maximum of 0.1% weight/weight (w/w) for lead in lead-containing alloys, including brass, bronze, and gunmetal.

What will the changes mean for manufacturers of products that come into contact with drinking water (like pipes, fittings, and taps)?

The new regulations will directly affect manufacturers of water-contact products like pipes, fittings, and taps. They establish clear limits on specific substances, either in the water (via the EU DWD) or in the materials used (via the EU Positive List).

Manufacturers are provided with detailed guidelines for producing hygienically safe products, including testing procedures. Particularly, there's a significant impact on products made from lead-containing alloys (such as brass, bronze, gunmetal), requiring a shift to lead-free materials to meet the criteria of the new EU Positive List.

What actions are Member States expected to take to reduce lead exposure in existing buildings and installations?

Member States are encouraged to develop action plans to reduce lead exposure in existing buildings and installations. This may involve measures such as replacing lead pipes and promoting public awareness on minimizing lead exposure.

Part 2: Orbia B&I (Wavin)

What is Orbia B&I (Wavin) doing to comply with the new EU DWD?

We are transitioning to 100% lead-free brass for their products to align with the new EU DWD regulations. This shift involves moving from CW617N and CW625N brass to CW724R.

For products like the Wavin Tigris M5 press fitting, the transition from CW625N DZR brass to CW724R DZR brass is already complete, with the rest, including CW617N, to follow shortly. The Tigris M5 lead-free fitting range was introduced in January 2024, marking a significant step towards compliance with the updated standards.

CW617N and CW625N to CW724R: What are their individual characteristics and differences?

CW724R is a DZR brass, meaning it is dezincification resistant (more corrosion resistant) and at the same time lead-free (lead in alloy < 0,1 % w/w). As these products are resistant to dezincification, they face no application restrictions related to corrosion risks, ensuring their suitability for all drinking water qualities.

CW724R is a brass type released on the new European Positive List, published by the EU in January 2024.

When will the new lead-free DZR brass be implemented within Orbia B&I (Wavin)?

- ⦿ Denmark (Nordics): Implementation finished in Q4, 2023.
- ⦿ Germany: Implementation finished in Q4, 2023.
- ⦿ UK/Ireland: Implementation finished in Q4, 2023.
- ⦿ Other EU member states: implementation soon.
Contact your local sales representative for the local availability of lead-free brass.

Can customers still sell and use our fittings with lead-containing brass inside?

In principle the answer is yes. All brass types from Orbia B&I (Wavin) are drinking water approved and registered on the UBA list. The UBA list is a positive list of metallic materials that are hygienically suitable for contact with drinking water.

The UBA list is accepted by 4 member states (Germany, The Netherlands, Italy, and UK) and meanwhile also used as a reference by other European countries.

Although the UBA list will be replaced or superseded by the new EU Positive List by December 2026, products currently certified with materials conforming to the UBA list will continue to be permitted until 2032. This extension is subject to the individual EU member state's implementation date of the new Drinking Water Directive (DWD).

Why is Orbia B&I (Wavin) already turning to lead-free brass in early 2024?

We are adopting lead-free brass early in 2024 to anticipate varying implementation schedules of the new EU DWD by individual EU member states. For instance, Germany plans to incorporate DWD requirements into their national "Trinkwasser Verordnung", effective January 2028. This proactive approach ensures our compliance across the EU, regardless of when each member state decides to apply the new standards.

Our customers should already take this new directive into account when selecting products and systems for their new projects (that could take years to go from idea to final construction). Our purpose is to support a safe and efficient drinking water supply. It's our joint responsibility to accept and understand the challenge ahead and act upon it accordingly.

Are EPDs available for the new, lead-free Tigris M5 fitting?

EPDs will be available by mid-2024.

Please contact our Sustainability department for more information.

Are there any other products in which the brass will be replaced?

The lead-free brass requirement stipulated by the Drinking Water Directive (DWD) applies exclusively to products used in drinking water applications. Consequently, products designed for other purposes, such as heating or cooling systems, are not subject to replacement under this directive.

The transition to lead-free brass isn't limited to the Tigris M5 – it encompasses all brass components within the Wavin Tigris PPSU fittings, already using lead-free DZR brass.

Larger sizes (> 40 mm) of Tigris M1 and the new Tigris MX axial press fitting range are also available with lead-free brass. Additionally, brass inserts in our PPR, PPRCT, and PB product ranges will soon transition to lead-free brass, demonstrating our comprehensive commitment to safer, environmentally friendly materials.

What does the revised EU DWD mean in practice for certification?

The updated EU DWD affects product certification processes. Until the implementation of the new EU Positive List in January 2027, current certifications based on the UBA list and national hygiene tests remain valid. These include system performance tests per ISO 21003 and annual factory audits, with each certification having its own expiry date. From January 2027, newly launched products must adhere to the EU Positive List criteria, and starting in 2027, new certifications will also need to be based on this list.

How will I know if the product is suitable for drinking water applications?

The EU has designed a new logo to clarify whether a product is safe to use for drinking water applications. The following symbols denote that a product is safe for these applications:

**On the product/label
(at least 5mm in height).**



**On the documentation
and packaging.**



SUITABLE FOR DRINKING WATER

This will not be directly visible on the product or packaging and will also follow an implementation period. During this period, products can still be recognized by the existing, known hallmarks like DVGW, KIWA, WRAS, IIP etc. Under the new regulation, the certification process for specific products can start in January 2027, including testing, production location inspection, and paperwork, likely exceeding one year. Full certification completion is required before using the new logo, indicating no new hallmarks will appear before 2028.

Will the new drinking water logo replace all existing hallmarks?

No. The new drinking water logo is an addition, not a replacement, for existing hallmarks. It specifically addresses drinking water requirements, whereas existing quality marks like KIWA and DVGW also encompass mechanical requirements not covered by EU drinking water legislation.