

Assessment of Alternatives Study

Fluoropolymers remain essential for strategic EU industries

Failure is not an option in automotive fuel systems and ultra-pure water piping for semiconductor manufacturing. Materials must deliver exceptional chemical resistance, long-term reliability, and ultra-high purity under demanding real-world conditions. Fluoropolymers uniquely meet these requirements while potential alternatives struggle when performance, durability, purity, and protection must all be guaranteed simultaneously.



Performance requirements

Fuel systems must **safely contain fuel** under high heat and pressure.



Limits of alternatives

Alternatives **can't withstand the combined effects of heat, pressure and fuel exposure**, leading to leakage.



Implications

Leakage causes safety risks. Transition would require **full system redesign (~20 years)**.



Performance requirements

Ultra-pure water systems **must prevent even the smallest contamination**.



Limits of alternatives

Alternatives **do not meet the required purity levels or are not yet proven** in real use.



Implications

Contamination disrupts production. Transition requires **major redesign and investment (>10 years, EUR 50m)**.

Conclusion

One-size-fits-all regulatory approaches risk disrupting strategic industries.

As viable alternatives are not available or cannot be robustly assessed, fluoropolymers should be fully exempted to avoid disproportionate impacts on European industry.