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.

Fluoropolymers

Product Group of Plastics Europe

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