



UEIL Information paper on microplastics

What are microplastics?

Microplastics are solid, insoluble, particulate and non-biodegradable synthetic polymers in a size range of less than 5 millimeters to 100 nanometers. These particles can be ingested by living organisms and are a cause for concern about their overall impact on the environment and possibly also on human health. Entry into the environment should therefore be avoided as far as possible.

What is not microplastic?

A distinction must be made between water-soluble and liquid polymers, which are often mistakenly referred to as "liquid plastics". These are typically dissolved in the environment and not present as solid particles and are therefore not microplastics according to the definition of Regulation (EU) 2023/2055. Typical representatives are, for example, viscosity index improvers ("VI") or certain grease thickeners such as polyureas.

Examples of microplastics in lubricants:

- **Polytetrafluoroethylene (PTFE):** Known under the brand name "Teflon" of the DuPont company, PTFE is used in lubricating greases and lubricating oils to improve the properties of the lubricant. PTFE serves as a thickener as well as a friction and wear protection additive. Due to its outstanding properties in terms of aggressive chemical and thermal environments, PTFE is the preferred choice. PTFE particles, for example, improve stick-slip properties and have a noise- and vibration-damping effect.
- **Polyamide:** Also used in lubricants to optimize their performance.

Permitted Uses:

According to EU Regulation 2023/2055, the uses are permitted in the industrial sector (e.g. in production sites, large construction sites or large maintenance, repair and service workshops) as well as in closed applications. It is assumed that due to the limited number of sites where the substances are used, or because the particles are technically confined, a large-scale release into the environment is prevented.

Microplastics in greases:

As stated above, microplastic uses are permitted in an industrial environment only. Concerning greases, microplastics bound within the matrix may be used in professional and consumer uses. Companies should ask their grease supplier whether the microplastic particles can be considered bound within the matrix, as this depends on the precise formulation and thickeners used.



Conditions of use:

From 17 October 2025, suppliers of substances such as lubricants containing microplastics must provide the following information:

- Instructions for use and disposal for downstream industrial users, explaining how to prevent the release of synthetic polymer microparticles into the environment (this also applies to instructions for commercial users and the general public for products in closed applications).
- The note that "the synthetic polymer microparticles supplied comply with the conditions of entry 78 in Annex XVII to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council".
- Information on the quantity or, where applicable, the concentration of synthetic polymer microparticles in the substance or lubricant.
- General information on the identity of the microplastics contained in the substance or lubricant, enabling manufacturers, industrial downstream users and other suppliers to meet their obligations.

This information must be provided in the safety data sheet and on the label

From 2027, the lubricant manufacturer will then be subject to further information obligations vis-à-vis ECHA regarding use and quantities.

For further information and specific requests, please do not hesitate to contact us.

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Note: This information paper serves to educate and raise awareness about the topic of microplastics. It does not replace legal advice or the detailed examination of individual use cases.

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UEIL brings together the lubricants industry in Europe, with a special focus on SMEs and independent companies, representing more than 35 associations, 450 companies and 100,000 employees covering the entire value chain, from manufacturing and distribution to recycling.

Our mission is to support informed policymaking by raising awareness among EU stakeholders about the value and benefit of the European lubricants industry for Europe's economy, society, and the environment.

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