



Aqueous film-forming foam and the Prohibition of Certain Toxic Substances Regulations

AQUEOUS FILM-FORMING FOAM

Aqueous film-forming foam (AFFF) is a synthetic mixture containing hydrocarbon-based surfactants and fluorinated surfactants with the ability to rapidly extinguish hydrocarbon fuel fires. It is mainly used in civil and military aviation, and oil industries. Fluorinated surfactants belong to the chemical group of per- and polyfluoroalkyl substances (PFASs) which are described below. In Canada, AFFF containing certain PFASs are prohibited under the Prohibition of Certain Toxic Substances Regulations, 2012 with a few exemptions outlined below.

SCOPE OF THE REGULATIONS

The regulations prohibit the manufacture, use, sale, offer for sale or import of certain toxic substances, as well as products containing these substances with a limited number of exemptions.

PFASs PROHIBITED UNDER THE REGULATIONS

The following PFASs are prohibited under the regulations:

- perfluorooctane sulfonate, its salts and its precursors (collectively referred to as PFOS)
- perfluorooctanoic acid, its salts and its precursors (collectively referred to as PFOA)
- long-chain (C9-C20) perfluorocarboxylic acids, their salts and their precursors (collectively referred to as LC-PFCAs)

PFOS has been regulated since 2008. It was originally regulated under the Perfluorooctane Sulfonate and Its Salts and Certain Other Compounds Regulations (the PFOS Regulations). In 2016, PFOS was added to the regulations and the PFOS Regulations were repealed. PFOA and LC-PFCAs were added to the regulations in 2016.

EXEMPTIONS UNDER THE REGULATIONS

The regulations prohibit the manufacture, use, sale, offer for sale and import of PFOS, PFOA and LC-PFCAs with a limited number of exemptions.

The regulations allow:

- the use of AFFF that contains residual levels of PFOS at a maximum concentration of 10 ppm.
- the use and import of AFFF contaminated with PFOS in a military vessel or military fire-fighting vehicle returning from a foreign military operation.
- the import, use, sale and offer for sale of AFFF that contains PFOA and/or LC-PFCAs used in fire-fighting.

These exemptions accommodate:

- the residual levels of PFOS that remain in fire-fighting equipment as a result of historical use of the substance,
- the transition to alternatives to PFOA and/or LC-PFCAs.

DETERMINING LEVELS OF PFASs IN AFFF

To find out if your AFFF contains PFOS, PFOA and/or LC-PFCAs, you should refer to the safety data sheet for the product or contact your AFFF supplier/manufacturer.

USE AND DISPOSAL

Since PFOS, PFOA and LC-PFCAs pose a risk to the environment, best environmental practices and available technologies should be used during all life cycle stages. AFFF that contains PFOS, PFOA and LC-PFCAs should be used and disposed in an environmentally-sound manner. Be sure to use appropriate procedures to avoid any release to the environment during routine use such as training activities and equipment testing.

Dispose of AFFF that contains PFOS, PFOA and/or LC-PFCAs at an authorized hazardous waste management facility. In Canada, provinces and territories have jurisdiction over the licensing and permitting of disposal facilities. Contact the provincial/territorial authorities of the province/territory in which you are located to find the appropriate hazardous waste management facility for safe disposal.

INFORMATION AND CONTACTS

[Information on the Prohibition of Certain Toxic Substances Regulations, 2012 on the CEPA Registry](#)

[Information on PFOS on the Management of Toxic Substances pages](#)

[Information on PFOA and LC-PFCAs on the Management of Toxic Substances pages](#)

Inquiries about the Regulations can be made:

- By email: ec.interdiction-prohibition.ec@canada.ca
- By phone: Environment and Climate Change Canada Inquiry Centre at 1-800-668-6767 (in Canada only) or 819-938-3860
- By fax: 819-938-9423

Cat. N°.: En14-280/2017E-PDF
ISBN: 978-0-660-09377-2

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