Indiana law concerning the use of PFAS foam

In March 2020, Indiana joined several other U.S. states by adopting legislation to restrict the use foams containing per- and polyfluoroalkyl substances (PFASs).

House Enrolled Act 1189 prohibits the use for training or testing purposes of “Class B” firefighting foam containing any intentionally added PFASs. An exception exists for testing facilities that have implemented “appropriate measures” to prevent the releases to the environment.

Review Indiana Code

Types of Firefighting Foam:

There are two major classes of firefighting foam:

1. Class A Foam: Used to extinguish Class A materials, such as wood, paper, and brush (wildland), is widely used by many fire departments for structural firefighting using compressed air foam systems.

2. Class B Foam (also called AFFF): Used to extinguish Class B materials, which include gasoline, oil, and jet fuel.

Aqueous film forming foam (AFFF, or alcohol resistant AR-AFFF) is a highly effective foam used for fighting high-hazard flammable liquid fires. AFFF is usually created by combining foaming agents with fluorinated surfactants. Per- and polyfluoroalkyl substances (PFAS) are the active ingredient in these fluorinated surfactants. When mixed with water and discharged, the foam forms an aqueous film that quickly cuts off the oxygen to a flame, extinguishes the fire, and stops the fire from relighting.

How to Tell if Firefighting Foam Contains PFAS:

It may not be easy to tell if the foam you have contains PFAS. These chemicals are not required to be reported on any safety data sheets (SDS), as they currently are not considered a hazardous substance. PFAS may not be listed under any active ingredients list, either. A good indicator that the foam contains PFAS is if it mentions fluorosurfactant, fluoroprotein, C6, or the use of “fluoro”, however, not all fluorinated surfactants are made of PFAS. The best thing to do is to note the brand and manufacturer of the foam and contact the manufacturer in writing to see if PFAS is used in its production and ask for the SDS. Be sure to be clear that you mean the entire family of PFAS, not just the single compound PFOS, and be sure to review the SDS.
Below is an example of PFAS language from a Safety Data Sheet:
Product Name: Buckeye 3% Mil Spec AFFF

Link: http://buckeyefire.com/wp-content/uploads/2019/01/Buckeye-C6-3-MIL-SPEC-AFFF-SDS.pdf

- In Section I, Chemical Product and Company Identification, we find AFFF Concentrate, Aqueous Film Forming Foam. This is our first clue that the product may contain PFAS.

SAFETY DATA SHEET
BUCKEYE C6 - 3% MIL SPEC A.F.F.F.

SECTION I. Chemical Product and Company Identification

Product Name:	Buckeye Platinum Plus C6 - 3% Mil Spec A.F.F.F. Concentrate
Model No.	BFC-3.6MS
Synonym:	3% Mil Spec A.F.F.F.
Manufacturer:	Buckeye Fire Equipment Company 110 Kings Road Kings Mountain, NC 28086
Telephone:	704.739.7415
Web Address:	www.buckeyefire.com
Email Address:	bfec@buckeyef.com
Recommended Use:	Fire suppression, not for human or animal drug
use. Emergency:	CHEMTREC 1.800.424.9300
Revision Date:	05/17/2018

- In Section III, Composition/Information on Ingredients, we find "Proprietary mixture of **Fluorosurfactants** (bolded to identify key words) and hydrocarbon surfactants". This AFFF contains PFAS.

SECTION III. Composition/Information on Ingredients

Chemical Name	Weight %*	CAS #
Water	> 56	7732-18-5
Hexylene Glycol	< 19	107-41-5
Proprietary mixture of fluorosurfactants and hydrocarbon surfactants	< 5	N/A

* % is rounded to the nearest appropriate number. Values are not to be considered product specifications

Note: Buckeye C6 3% Mil Spec A.F.F.F. does not contain PFOS and will not breakdown to yield PFOA in accordance with the goals of the US EPA 2010/15 PFOA Stewardship Program.

- Further, note the below statement does not mean it does not contain PFAS. It means the product was manufactured with PFAS that did not contain PFOS. Also note, that PFAS is not mentioned anywhere else in the SDS.

SECTION III. Composition/Information on Ingredients

Chemical Name	Weight %*	CAS #
Water	> 56	7732-18-5
Hexylene Glycol	< 19	107-41-5
Proprietary mixture of fluorosurfactants and hydrocarbon surfactants	< 5	N/A

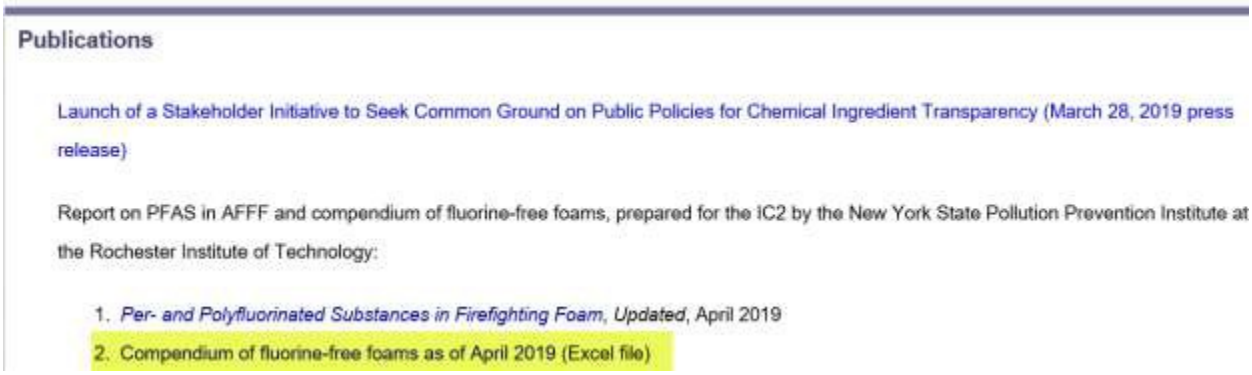
* % is rounded to the nearest appropriate number. Values are not to be considered product specifications

Note: Buckeye C6 3% Mil Spec A.F.F.F. does not contain PFOS and will not breakdown to yield PFOA in accordance with the goals of the US EPA 2010/15 PFOA Stewardship Program.

Fluorine Free AFFF Foam:

Now that we know what to look for, here is some information on PFAS-free material: www.theic2.org/publications.

Under the publications section is a link to a list of known PFAS-free AFFF foam. This list is accurate as of April 2019.



Please note, the State of Indiana does not endorse or recommend any specific product.

Please be aware that performance and testing of the fluorine-free AFFF is still on-going.

1. According to an independent expert panel convened by the International Pollutants Elimination Network (September 2018):

    - Current top-quality Class B fluorine-free firefighting foams are capable of meeting all the standard firefighting performance certifications applicable to AFFF and related foams.

    - Since the early to mid-2000s many foam users such as chemical industries, fire brigades, airports, bulk fuel storages, ports, oil and gas platforms, and refineries have transitioned to fluorine-free foams and demonstrated their effectiveness in operational use.

    - PFAS-free foams are non-persistent, biodegradable with only short-term, localized and self-remediating effects versus highly persistent PFAS in AFFF which are all toxic and bio-accumulative to varying degrees for the environment and human health, as well as exhibiting extreme long-range transport that has resulted in worldwide contamination.

2. Additional organizations are developing fluorine-free foams, characterizing them, and performing alternatives assessments. Washington is the first U.S. state to banthe sale of fluorinated foams.

3. There is no regulation preventing the use of fluorine-free foams by non-military users, including firefighting training centers, chemical manufacturers, oil refineries, and others.

For more information, please contact firemarshal@dhs.IN.gov.

Some information contained in this fact sheet originally compiled by Michigan's Environment, Great Lakes and Energy Department.