TYCO FIRE PROTECTION PRODUCTS FOAM TEST LAB—REQUEST FOR ANALYSIS

Requested By:

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Vessel or Facility: _____

Contact Name: _____

Email: _____

Phone: _____

Make sure your address and email are clearly written.
Results will be sent via email to the above email address.

PURCHASE ORDER NO. _____

For credit card payments, please provide contact name and phone number:

Contact name: _____

Phone number: _____

☐ **Rush Analysis:** Only available for orders containing up to five (5) samples. Rush orders are an additional charge and have a typical turn around time of 2-3 working days after sample is received by the lab. Marine/IMO orders require an additional working day for conditioning requirements.

National Fire Equipment Ltd.

40 Edilcan Drive
Concord, ON., L4K 3S6
905-761-6355 ext. 6
concordsales@nationalfire.com
www.nationalfire.com

Total Samples in This Request: ____

Box: _____ **of** _____

International requests require Safety Data Sheet with TSCA information or a signed TSCA compliance form.

	Sample Type	Concentration	Sample Information		TESTING/REPORT
Sample Number: _____ Manufacturer: _____ Product Name: _____ Lot Number: _____ Purchase Date: _____ ☐ Concentrate ☐ Premix (foam/water mixture for standard quality)* ☐ Premix (foam/water mixture for proportioning) ☐ System Water ☐ Shell Water *additional sample required	☐ AFFF ☐ AR-AFFF ☐ FFFP ☐ Fluoroprotein ☐ Protein ☐ High Expansion ☐ AR-FFFP ☐ AR-Fluoroprotein ☐ Non-Fluorinated ☐ Other: _____	☐ 1% ☐ 2% ☐ 2.75% ☐ 3% ☐ 6% ☐ 1x1% ☐ 1x3% ☐ 3x3% ☐ 3x6% ☐ Other: _____ Premix %: _____	Sample Point ☐ Top ☐ Middle ☐ Bottom ☐ Circulated ☐ Mixture	Storage Container ☐ Atmospheric Tank ☐ Bladder Tank ☐ Foam Cart ☐ Tote ☐ Drum ☐ Pail ☐ Other Storage Location:	Testing Requested ☐ Standard Quality ☐ Proportioning ☐ Marine/IMO ☐ Shell Water ☐ **Add Chemical Stability (extra charge)** ☐ **Add Lab Scale Fire Test (extra charge)** Fuel for AR-AFFF or NFF Lab Scale Fire Test (see back) ☐ Heptane ☐ Acetone

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NOTICE:

Tyco Fire Protection Products Foam Test Lab **does not accept** or test foam products manufactured with PFOS.
Any samples of products known to be manufactured with PFOS or unknown samples ***will be returned without analysis***.
Note: Due to the volume of samples received, ANY SAMPLE WITH INCOMPLETE INFORMATION WILL NOT BE ANALYZED.
It is the sender's responsibility to provide complete information and samples of sufficient quantity.

TYCO FIRE PROTECTION PRODUCTS FOAM TEST LAB—General Foam Sampling Information

General Sampling:

- Samples need to be representative of the contents in the storage tank or container.
- Circulate or mix tanks or containers if possible. **Tanks and sample containers containing mineral oil should not be circulated or mixed. Ensure that samples are taken below the mineral oil as mineral oil is known to adversely affect foam test results.**
- Allow sufficient concentrate to flush through any piping before collecting a sample. Taking a representative sample can also be accomplished by sampling multiple locations inside the container. Please note the sample location.
- Tyco offers the Tyco Fire Protection Products Foam Test Lab Kit (Part No 710808) for ease of sampling and these are the preferred containers for sending in material for testing. There may be a delay in testing samples sent in other containers if damaged during shipment. To obtain a free Sampling Kit, Contact Customer Service at 1-800-267-8508 ext 6.
- Proportioning analysis requires three (3) samples:
  - A sample of mixed foam-water solution from the discharge device or test connection. The system should be run long enough to ensure proper mixing and that the sample is repre-sentative of an actual discharge.
  - A sample of the foam concentrate from the system.
  - A sample of system water. Proper calibration and analysis require the water sample to be representative of the water used to make the foam-water solution.
- Label samples and complete all required sections of the Request for Analysis form. Provide a Safety Data Sheet (SDS) for all samples.
- Be sure all contact information (name, address, email, phone, etc.) is **clearly written**. Results will only be sent by e-mail unless otherwise indicated.
- The product viability recommendations can only be based upon analysis results of the samples received. Hence, no statements of quality are intended to include any product other than that which is received by Tyco Fire Protection Products for testing. The Foam Test Lab makes no express or implied warranty of product viability or implied warranty of fitness for a particular purpose. Analysis results will be sent upon completion of testing.

Abbreviations/Definitions:

AFFF	Aqueous Film-Forming Foam AFFF products have only one concentration or proportioning percentage (e.g., 3%) and are for use on hydrocarbon fuels (e.g., Heptane) only.
AR-AFFF	Alcohol-Resistant Aqueous Film-Forming Foam AR-AFFF products typically have two concentrations or proportioning percentages (e.g., 1%x3%). The first is for use on hydrocarbon fuels (e.g., Heptane) , the second is for use on polar solvent fuels (e.g., Acetone) .
FFFP	Film-Forming Fluoroprotein
FP	Fluoroprotein
FP-AR	Fluoroprotein Alcohol-Resistant
IMO	International Maritime Organization
Hi-Ex	High-Expansion
PREMIX	Solution of water and foam concentrate proportioned at the correct use level. (e.g. 1% Foam with 99% water by volume).
NFF	Non-Fluorinated Foam

Testing Overview:

- See the chart below for testing that is included in the standard cost of foam analysis by foam agent type.
- Foam quality includes expansion ratio and drain time. High expansion drain time available at an additional cost.
- Standard Quality Testing is conducted using tap (potable) water. Low-expansion foam quality is tested according to NFPA 11 Annex D (2016). High-expansion foam quality is tested according to NFPA 11 Annex G (2016).
- Marine/IMO Testing is conducted using synthetic seawater. Low-expansion foam quality is tested according to IMO MSC.1/Circ.1312. High-expansion foam quality is tested according to NFPA 11 Annex G (2016).
- Special requests and fire testing (UL, IMO Small Scale, etc.) are available. Contact Tyco Fire Protection Products Foam Test Lab for pricing, availability, and sample size requirements before submitting request.

Minimum sample volume needed for testing:

Concentrate: 500 mL (~16 oz)
Premix (foam/water mix): 4 Liters (1 gallon)
Proportioned sample: 100 mL (~4 oz)
System water for proportioning: 1 liter (~ 32 oz)

Charges:

Standard Quality without Lab Fire	Call for pricing
Standard Quality with Lab Fire	Call for pricing
Proportioning Calibration Curve	Call for pricing
Added Proportioning Sample	Call for pricing
Standard Quality High Expansion	Call for pricing
Added Drain Time	Call for pricing
Shell Water Testing	Call for pricing

	Included in Standard Quality and Marine/IMO Testing						Included in Marine/IMO Testing	Available at an Additional Cost	
Foam Type	**Refractive Index**	**Density**	**pH**	**Film Formation**	**Viscosity**	**Foam Quality**	**Sediment**	**Lab Scale Fire**	**Chemical Stability**
AFFF	X	X	X	X		X	X	X	
AR-AFFF	X	X	X	X	X	X	X	X	
FFFP	X	X	X	X		X	X	X	
Protein or FP	X	X	X			X	X	X	
FP-AR	X	X	X		X	X	X	X	X
Hi-Ex	X	X	X			X	X		
NFF	X	X	X		X	X		X	