

**Manufacturer Submission Procedures for
Qualification Testing of**

Wildland Fire Chemical Products

**USDA Forest Service
Missoula Technology and Development Center
Wildland Fire Chemical Systems**

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Manufacturer Submission Procedures for Qualification Testing of Wildland Fire Chemical Products

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Policy

United States Department of Agriculture, Forest Service policy (Forest Service Manual 5162.03) requires that the agency “Use only evaluated, approved and qualified chemicals.”

The Director, Fire and Aviation Management, Washington Office, approves chemicals for Forest Service operations and administers the fire chemical products qualification and evaluation program.

Confidentiality

The formulation disclosure and other product information is submitted to the Forest Service as the first step of the evaluation process. These documents will be maintained within the Wildland Fire Chemical Systems (WFCS) Program for use during the evaluation process in accordance with a signed Material Transfer Agreement.

Only the Program and Project Manager of WFCS can access proprietary or sensitive information. Occasionally information will be provided when necessary to the Director of Fire and Aviation, the Branch Chief for Equipment and Chemicals, their staffs, and other governmental regulatory agencies when needed to address specific issues.

Results are issued to the submitter to provide up to date progress throughout the evaluation process. Product failures are only discussed with the submitter’s representative(s), identified during the submission process.

Only after a product has become qualified will the Forest Service will respond to questions from the public on the product related to effectiveness, corrosion, toxicity, and environmental impact. Performance results will be available on the WFCS website based on the results of the product evaluation.

Ownership of Evaluation Results

Only the entity that submits the product and pays the costs of the evaluation may benefit directly from the results of the evaluation.

Information developed during the evaluation will not be transferred to other parties except at the direct request of the submitter. Testing of each product will proceed independently of any other product.

The submitting entity may transfer the rights to the evaluation and listing on the QPL at its discretion. They must notify the Forest Service in writing of the transfer to assure legitimate access to information on file.

Freedom of Information Act (FOIA)

The Freedom of Information Act (FOIA), 5 U.S.C., Section 552 applies to information provided to the Forest Service during product evaluations. The Forest Service will not disclose confidential and trade secret information. Evaluation results may be disclosed under some circumstances.

Definitions

Long-term retardant products contain retardant salts (typically fertilizers) that alter the way the fire burns. They decrease the fire intensity and slow the advance of the fire. The water they contain primarily aids in uniform dispersal of the chemical over the target area. Long-term retardants work after the water they originally contained evaporates.

Foam fire suppressants contain foaming and wetting agents. The foaming agents affect how fast the water drains from the foam, how well the product clings to the fuel surfaces, and the accuracy of an aerial drop. The wetting agents increase the ability of the drained water to penetrate fuels. Foams depend on the water that they contain to suppress the fire.

Appropriate selection of concentrate dilution and application equipment will yield a range of suppressants. This range includes a wetting agent for mop-up, fluid foam for wet line, and dry foam for exposure protection.

Water enhancers contain ingredients designed to alter the physical characteristics of water to increase effectiveness, accuracy of the drop, or adhesion to fuels. They improve the ability of water to cling to vertical and smooth surfaces. Water enhancers depend on the water that they contain to suppress the fire.

Evaluation Requirements

Before listed on the QPL, all wildland fire chemical products must undergo an evaluation. Acceptance criteria and other requirements are found in the current applicable Forest Service Specification:

- Long-Term Retardant for Wildland Firefighting (5100-304d)
- Class A Foams for Wildland Firefighting (5100-307b)
- Water Enhancers for Wildland Firefighting (5100-306b)

The Forest Service periodically reviews and updates specifications. The last letter at the end of the specification number indicates an update or amendment.

The revision in effect on the date of submission will apply. Contact the Program Manager or Project Manager at WFCS for the most recent revision of the specification.

Before starting the submission process, the Forest Service strongly encourages contacting the Program Manager or Project Manager at WFCS.

The submitter must review the specification to help ensure the submitted formulation can meet the requirements. Preliminary testing through third party labs could be useful to identify product shortcomings prior to submission, however these results are not used for the qualification process. The Forest Service will only use test results performed on the traceable samples submitted to WFCS. Third-party laboratories contracted with the Forest Service must send results directly to WFCS. WFCS will inform the submitter of all findings from third- party laboratories in summary reports. Copies of the original reports from the third-party laboratories will also be provided.

Communication

Communication during the evaluation process and any required information is most efficient through email. The submitter can also call WFCS or arrange for personal visits. Hard-copy mail is available upon request.

Request for Evaluation

The submitter must request for evaluation in a letter addressed to the Program Manager of WFCS. The letter should include general information about the potential product and other important details.

Contact Information

Primary program contacts are listed below. Additional information can be found online at the Wildland Fire Chemicals Website: <https://www.fs.usda.gov/rm/fire/wfcs/index.php>

Bryon Lake
Program Manager, Fire
Chemicals
NTDP-Wildland Fire
Chemical Systems
USDA Forest Service
5785 Highway 10 West
Missoula, MT 59808
Phone: (406) 829-6814
bryon.lake@usda.gov

Hunter Jones
Project Manager,
Chemist
NTDP-Wildland Fire
Chemical Systems
USDA Forest Service
5785 Highway 10 West
Missoula, MT 59808
Phone: (406) 829-6810
hunter.jones@usda.gov

Collection Agreement

After receiving the request for evaluation, the Forest Service, the Missoula Technology and Development Center, WFCS, and the submitter will prepare a collection agreement.

The collection agreement describes the roles and responsibilities of the Forest Service, WFCS laboratory personnel, and the submitter.

Additional discussions may be required to ensure the Forest Service has all information to complete the agreement. Specific information in the agreement includes a list of authorized contacts for both the Forest Service and submitter, as well as an estimate of the cost and time required for the evaluation.

The submitter will receive the collection agreement. A cover letter containing instructions will accompany the agreement. Following these instructions, which will include authorizing signatures, tax identification, and return of the signed agreement, will allow the process to proceed in a timely manner.

Evaluation Fees

The submitter must pay for the cost of the evaluation in full, prior to any work being completed. The Forest Service will require a deposit of funds to cover the estimated costs. Contracted third-party laboratories conduct some specialized tests as part of the evaluation on samples provided by WFCS. The submitter will pay for these costs outside of the collection agreement. The Program Manager at WFCS will determine more specific costs based on the information submitted and discussed.

After receiving the signed collection agreement, the Forest Service will issue a bill for collection to the submitter. The amount billed is the amount in the collection agreement. The bill for collection includes a cover letter listing how to deposit the funds.

Return a copy of the bill for collection with a check for the specified amount and marked with the number shown on the bill for collection.

Submission Documents and Formulation Disclosure

After depositing funds, the Program Manager at WFCS will contact the submitter directly to request the required product formulation and technical documentation. The WFCS website contains the product formulation and technical documentation forms to submit. You can also request the forms from the Program Manager or Project Manager at WFCS. The completed forms are returned to WFCS.

The Formulation Disclosure Sheet contains information on all ingredients in the formulation. The Formulation Disclosure Sheet requires the following for each ingredient:

- Types and amounts of each chemical in the product
- Chemical Abstract Services number(s), quality, or grade
- Manufacturer
- Additional Information

Only list one manufacturer per ingredient.

Other required information includes:

- Safety Data Sheet (SDS) for the product
- A SDS for each ingredient included on the Formulation Disclosure Sheet
- All required Technical Data Sheets
- (Optional) Copies of patents covering any aspect of the formulation or its application to wildland fire operations, if they exist

Formulation Change

Notify the Program Manager of WFCS of formulation changes.

Any change to the formulation includes, but is not limited to changes in ingredient:

- Type
- Quantity
- Quality
- Processing
- Manufacturer
- Manufacturing site of individual ingredients

Re-evaluation may be required for any formulation change.

Document Review

The Program Manager or Project Manager at WFCS will review the documentation package for completeness and consistency. WFCS will ask questions at this time. A review of environmental regulations applicable to the formulation and the ingredients of the formulation will be completed at the same time.

If any of the ingredients trigger concern, WFCS may require a basic chemical profile and/or a risk assessment before further progress on the formulation evaluation. The Forest Service will make a written notification to the submitter of these concerns and include the acceptable remedies. The submitter will choose to continue or not and will notify the Forest Service in writing of their decision.

If required, the Forest Service or an approved third-party selected by the Forest Service will perform the risk assessment, using accepted methodology. The submitter will pay all costs for the risk assessment.

Product Shipment and Receipt

After the document review, WFCS will notify the submitter to ship the product for evaluation.

The submitter must ship the product to WFCS. The submitter will pay for any costs, customs paperwork, and arrangements to deliver the product to the laboratory for testing. The submitter will pay for any return shipments or disposal costs, when necessary.

Each specification outlines product concentrate definitions and the sample size required for evaluation in section 5.2.

When the submitter ships the product, they must notify the Fire Chemicals Project Manager

Ship the product to:

Project Manager, WFCS
USDA Forest Service, MTDC
5785 Highway 10 West
Missoula, MT 59808

When received, the Project Manager will notify the submitter by email.

Evaluation

The evaluation will normally start within one week of receipt of the formulation. The Project Manager will notify the submitter if there is a delay.

The laboratory evaluation will normally take 18 to 24 months to complete after receiving the formulation.

As specific tests are completed, the submitter will receive progress reports by email (or preferred contact method).

Final Report

WFCS will send the submitter a final report summarizing the results of all the individual tests in the evaluation. The Director of Fire and Aviation Management will receive recommendations regarding the specific classifications and application methods for the formulation.

Acceptance and Notification

The Director of Fire and Aviation Management will notify the submitter in writing of successful completion of the formulation evaluation.

Qualified Products Listing

Following successful completion, the Forest Service will add the formulation to the QPL with the approved classifications and application methods.

No use of the Forest Service shield is permitted. The logo is a protected image under Title 36, Code of Federal Regulations, Part 264. Do not use the Forest Service shield on items such as product brochures, advertising, presentations, web sites, or other promotional items.

Statements implying endorsement by the Forest Service are prohibited.

Following the laboratory evaluation of a formulation and listing on the QPL, the following statement is optional on product brochures or other similar informational material. "This product has been evaluated by the USDA Forest Service and meets the requirements of Forest Service Specifications for applications as determined during the product evaluation and shown on the QPL."

Procurement

Long-term retardant products are purchased through national contracts. Obtain information on these contracts through the contracting office at the National Interagency Fire Center in Boise, Idaho. The phone number is (208) 387-5512.

Class A Foams and Water Enhancers are generally procured through regional or local contracts.

Required Submission Forms

Long-term Retardant

- Formulation Disclosure (FS-5100-37)
- Technical Data Sheet - Part 1 (FS-5100-38)
- Technical Data Sheet – Part 2 (FS-5100-39)
- Toxicity Characteristic Leaching Procedure (TCLP) results (EPA SW-846 Test Method 1311)

Pre-Treatment Retardants

- Formulation Disclosure (FS-5100-37)
- Technical Data Sheet - Part 1 (FS-5100-38)
- Technical Data Sheet – Part 2 (FS-5100-39)
- Toxicity Characteristic Leaching Procedure (TCLP) results (EPA SW-846 Test Method 1311)

Class A Foam

- Formulation Disclosure (FS-5100-35)
- Technical Data Sheet (FS-5100-36)

Water Enhancers

- Formulation Disclosure (FS-5100-32)
- Technical Data Sheet – Part 1 (FS-5100-33)
- Technical Data Sheet – Part 2 (FS-5100-34)