Qualified Products List for Water Enhancers August 2008

A. Justification

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

Laws, Statutes, and Regulations

• Forest Service Manual (FSM) 5160 - Fire Management Equipment and Supplies

The policy of the Forest Service is stated in Forest Service Manual (FSM 5162.03), "Use only evaluated, approved and qualified chemicals." This policy requires the Agency to evaluate all wildland fire chemicals before they are used in fire suppression activities on lands managed by the FS. Additionally, the Agency needs..."[t]o have available and utilize adequate types and quantities of qualified fire chemical products to accomplish fire management activities safely, efficiently, and effectively." To accomplish this objective, the Forest Service evaluates chemical products available for use in direct wildland-fire suppression operations prior to such use on lands managed by the Agency. (FSM 5162.02, 5162.03)

Safe products do not contain ingredients that create an enhanced risk to firefighters or the public in typical use. The basis for decisions regarding product effects is acute toxicity determinations of the products, as well as review of lists of known and suspected carcinogens. The safety of firefighters' equipment, either ground-based or aircraft, is also considered (i.e., uniform corrosion tests, intergrandular corrosion, etc.).

Also considered is safety to the environment in terms of aquatic environments (fish, clean water) and terrestrial environments (wildlife, plants). Risk-determinations assist in identifying products that with typical use do not increase danger to the environments mentioned above. Toxicity tests identify potential acute toxicity concerns.

Tests to determine efficiency assess:

- Mix ratio range of concentrate products and water appropriate for storage and handling in typical wildland fire operations. The goal is to provide products that are storable and/or can be kept available on fire equipment.
- Whether to product can be mixed and used with readily available equipment and facilities.

Effectiveness tests for products such as wildland fire foams are based on a product's ability to reduce ignition during a Lateral Ignition Flame Test.

Finally, evaluation and qualification of products is based upon meeting the standards identified in the appropriate fire chemical specification.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

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a. What information will be collected - reported or recorded? (If there are pieces of information that are especially burdensome in the collection, a specific explanation should be provided.)

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The following information is collected:

1) The Manufacturer's Safety Data Sheet (MSDS) for the product(s) submitted for testing as well as the MSDS for the individual ingredients incorporated in the product (usually available from the supplier) shall be provided by the individual or company submitting a product(s) for evaluation.

2) Form FS-5100-32, Water Enhancer Formulation Disclosure Sheet

- Product name
- Formulation identification
- Submitting company
- Date submitted
- Submitted by (including signature)
- Title of submitter
- Recommended use level
- Formulation ingredients (including water, and using common chemical name)
- Whether the formulation is proprietary (if proprietary, explanation is required)
- Manufacturer, process, and quality/grade
- Chemical Abstract Services (CAS) number or other technical identification (must be accepted industry standard)
- Percent by weight in wet or dry concentrate
- Percent by weight in solution at recommended use-level
- Patent or Trade Mark number (and copy of the patent)
- Remarks

3) FS-5100-33, Water Enhancer Technical Data Sheet

- Product name
- Submitting company
- Formulation identification
- Mix ratio range
- Physical properties of the concentrate (if liquid) and mixed product
- Recommended method for the laboratory preparation of the product (including equipment, techniques, and precautions), attach laboratory bulletin if needed
- Description of field mixing, handling, packaging, and proposed hardware; attach equipment bulletin if available.

4) <u>FS-5100-34</u>, <u>Water Enhancer Technical Data Sheet - Thickened</u> Products

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- Product name
- Submitting company
- Formulation identification
- Mix ratio range
- If submitted product is result of a chemical reaction, provide information explaining the reaction process and typical residual quantities of the reaction ingredients.
- Data, graphs or tables (as indicated) for each mix ratio being evaluated:
 - o Water-enhancer mixture viscosity versus time since mixing, at a temperature test of 70 degrees Fahrenheit;
 - A table of enhanced water mixture viscosity versus temperature of water used for mixing: Viscosity shall be measured at 10 minutes, 30 minutes, 1 hour, and 24 hours following mixing;
 - o A table of enhanced water mixture viscosity at 70 degrees Fahrenheit, 1 hour and 24 hours following mixing, versus the mix ration from 0.25 percent below the lowest concentration to 0.25 percent above the highest concentration; and
 - o A table of hardness and conductivity versus viscosity of the enhanced water mixture at 70 degrees Fahrenheit for 10 minutes, 30 minutes, 45 minutes, and 1 hour after mixing.
- Information regarding the residual content of potentially toxic substances remaining after the reaction process that created the ingredient: Water enhancers are unique in utilizing such "reacted" ingredients. The information is normally available to water enhancer product manufacturers from the ingredient manufacturer and can be forwarded to the Forest Service via letter or copies of documentation
- b. From whom will the information be collected? If there are different respondent categories (e.g., loan applicant versus a bank versus an appraiser), each should be described along with the type of collection activity that applies.

Table 1 - Respondents

Informatio n Collected	Description	Information Provided to:	Prepared by
Material Safety Data Sheets	Material Safety Data Sheets for each ingredient provided by ingredient manufacturer		Product manufacturer (obtains copies of MSDS forms from ingredient manufacturer)
FS-5100-32	Formulation Ingredient Content FS	Wildland Fire Chemical	Product manufacturer
FS-5100-33	Mixing and Handling Requirements	Systems	(submitter)
FS-5100-34	Hydration - Viscosity Curves, residual content of reacted ingredients		Product manufacturer (submitter)

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c. What will this information be used for - provide ALL uses?

The information provided will allow the Forest Service to search and determine if any of the ingredients are on the:

- List of Known and Suspected Carcinogens, or
- The U.S. Environmental Protection Agency's List of Highly Hazardous Materials

If an ingredient does occur in sufficient quantity for concern, it may trigger an additional risk analysis to determine risk to human/environmental health by typical use of the product or to Forest Service employees evaluating the product.

Should a risk analysis be necessary, the Forest Service will request the product submitter provide a copy of the product's labeling. This information needs to be supplied to the Agency before a product is submitted for evaluation in order to identify risks to the people doing the evaluation.

d. How will the information be collected (e.g., forms, non-forms, electronically, face-to-face, over the phone, over the Internet)? Does the respondent have multiple options for providing the information? If so, what are they?

Forms FS-5100-32, FS-5100-33, and FS-5100-34 are available in either electronic form via e-mail or in hardcopy provided by the Forest Service, which ever the respondent prefers. Submission of responses may be made via e-mail, USPS, FedEx or other contract carrier.

e. How frequently will the information be collected?

It is anticipated that information is collected from each respondent, for each formulation, no more than once, usually at the initial request for evaluation. For the purposes of this information collection, it is anticipated approximately two respondents will submit three responses each during a twelve-month period. This is a small industry and potential respondents comprise the majority of the industry.

f. Will the information be shared with any other organizations inside or outside USDA or the government?

Any proprietary information submitted to the Forest Service will be kept in locked files. Basic information on product characteristics will be provided to potential users such as the Department of the Interior's wildland fire agencies, state wildland fire agencies, and international wildland fire cooperators (i.e., Canada and Australia) if the product successfully completes the evaluation.

g. If this is an ongoing collection, how have the collection requirements changed over time?

As the product specification has evolved, the Forest Service has reduced the amount of information collected. The Agency has identified what information is necessary to evaluate the products. In the case of potentially hazardous residual content created in development of an ingredient, the Agency will ask for additional information necessary to address the potential risk to either the

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environment or human health.

The basic collection of specific ingredients by volume has not changed.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.

The Forest Service forms used to collect information from respondents are available electronically. The Agency accepts electronic submissions by respondents. Approximately 70 percent of respondents do so by electronic means.

The data collected using forms FS-5100-32, FS-5100-33, and FS-5100-34 is unique for each formulation and the minimum necessary to determine effects. Generally, a portion of the data collected is proprietary and therefore may not be appropriate for a fully automated collection process.

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4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The Forest Service is unaware of any other information source. The data collected is often proprietary in nature and not available through any other source within the Agency, USDA, other government source, or outside of government. Although the MSDS sheets for the ingredients may be available from the respondents supplier, to ensure the FS receives the correct MSDS for the specific ingredient it is best for the respondent to provide them.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

Over the last two years, the Forest Service has received seven submissions from three entities. One entity qualifies as a small business.

The Agency has attempted to reduce the burden for all entities by limiting the collected information to the minimum necessary for Forest Service scientists to make informed decisions on human health and environmental risk; or that necessary to correctly mix and handle the product in a fair evaluation.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Without this information, the Forest Service would not be able to assess the safety of wildland fire chemicals used to manage Agency lands if specific ingredients and the quantity of each, used were not known. This would result in the Agency failing to meet Forest Service Manual direction (FSM 5162.02) to utilize, "...fire chemical products to accomplish fire management activities **safely**, efficiently, and effectively." [Emphasis added.] The information provided identifies whether formulations contain ingredients in sufficient quantity to increase the human health risk or risk to natural ecosystems to unacceptable levels.

The first safety item that must be addressed by the Agency is to determine existence in a formulation of ingredients that could be hazardous to the laboratory personnel doing the evaluation. The next concern is the use of the product in wildland fire fighting and the potential exposure to the firefighters, the public at large, and to the environment. Knowledge of specific ingredients and their respective quantity in a product allows the Forest Service to make informed decisions as to the human health and environmental risk of these products.

- 7. Explain any special circumstances that would cause an information collection to be conducted in a manner:
 - Requiring respondents to report information to the agency more often than quarterly;
 - Requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;

Although the Collection Agreement between the Forest Service and respondent requests the respondent to submit product information within 30

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days, the Agency will consider extensions to aid the respondent in preparation of the necessary information.

- Requiring respondents to submit more than an original and two copies of any document;
- Requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;
- In connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- Requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- That includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or

The information regarding specific ingredients and quantities of ingredients is proprietary information belonging to the respondent. Information collection occurs after both the respondent and the Forest Service have signed a Collection Agreement. The information is kept in a secure location and requests for information are processed under the Freedom of Information Act (FOIA), which exempts such information from disclosure under exemption 4. FOIA exemption 4 covers trade secrets or financial information obtained from a person that is privileged or confidential (refers to business information received from outside individuals/businesses). The proprietary information is not shared with other agencies, although the information as to whether a product may increase the risk to human health or environmental health is provided from the data the FS obtains during the product evaluation.

 Requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

There are no other special circumstances. The collection of information is conducted in a manner consistent with the guidelines in 5 CFR 1320.6.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

A Federal Register Notice notifying the public of the 60-day comment period for this information collection renewal was published on pages 22321-22321 in Volume 73 on April 25, 2008. No comments were received.

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The Forest Service continually seeks comments on specifications and includes the information collection forms in the packages sent to manufacturers that have expressed interest in submitting or have submitted a product for evaluation. Comments are reviewed by representatives of various Federal and state wildland firefighting agencies, as well as the Forest Service. Additionally, the Forest Service is willing to consult individually with company representatives that wish to submit a product for evaluation, to provide clarity on the information requested or format for responses.

The following businesses (and their listed representatives) have previously responded to this information collection, and because they comprise the majority of potential respondents, their comments have previously been collected, as described in the paragraph above.

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- ICL Performance Products, L.P. Edward Goldberg 428 Buttonwood Road Landenburg, PA 19350 215-280-3864
- Thermo-Gel
 Jay Simmons
 400 E. Broadway, Suite 50
 Bismark, ND 58501
 701-258-8208
- Doug Higgins
 Wildfire/Tyco
 66 Duran Street
 Petawawa, Ontario K8H 1R2
 Phone # 613-687-2116
- 9. Explain any decision to provide any payment or gift to respondents, other than re-enumeration of contractors or grantees.

The FS does not provide any payment or gift to respondents for the information provided other than re-enumeration of contractors.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

As previously indicated in item 7, Part A above, the information regarding specific ingredients and quantities of ingredients is proprietary information belonging to the respondent. The information is not collected until after a Collection Agreement has been signed by both the respondent and the Forest Service. The information is kept in a secure location and requests for information are processed under the Freedom of Information Act, which exempts such information from disclosure under FOIA exemption 4.

The proprietary information is not shared with other agencies although the information as to whether a product may increase the risk to human health or environmental health is provided from the data the FS obtains during the product evaluation.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

The information required from the respondent does not include any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other personal matters commonly considered private.

12. Provide estimates of the hour burden of the collection of information. Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated.

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- Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If this request for approval covers more than one form, provide separate hour burden estimates for each form.
 - a) Description of the collection activity
 - b) Corresponding form number (if applicable)
 - c) Number of respondents
 - d) Number of responses annually per respondent,
 - e) Total annual responses (columns c x d)
 - f) Estimated hours per response
 - g) Total annual burden hours (columns e x f)

Table 2 - Estimated Burden Hours

(a) Description of the Collection Activity	(b) Form Number	(c) Number of Responden ts	(d) Number of responses annually per Responde nt	(e) Total annual responses (c x d)	(f) Estimate of Burden Hours per response	(g) Total Annual Burden Hours (e x f)
Formulation Ingredient Content	FS-5100-32		3	6	.75	4.5
Mixing and Handling Requirements; Hydration	FS-5100-33		3	6	1.25	7.5
Viscosity Curves (includes requirement for additional information regarding residual content of ingredients as necessary)	FS-5100- 34	2	3	6	1.75	10.5
Copies of Material Safety Data Sheets for each ingredient provided by ingredient manufacturer	N/A		3	6	1.0	6
Totals		2		24		28.5 ≈ 29

- Record keeping burden should be addressed separately and should include columns for:
 - a) Description of record keeping activity: None
 - b) Number of record keepers: None
 - c) Annual hours per record keeper: None
 - d) Total annual record keeping hours (columns b x c): None
- Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.

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Table 3 – Estimated Annual Cost to Respondents

(a) Description of the Collection Activity	(b) Estimated Total Annual Burden on Respondents (Hours)	(c) Estimated Average Income per Hour	(d) Estimated Cost to Responden ts	
FS-5100-32				
FS-5100-33	23	\$38.50	\$885.50	
FS-5100-34				
Material Safety Data Sheets (collection from ingredient manufacturers)	6	\$17.62	\$105.72	
Totals	29		\$991.22	

The estimate of \$38.50/hr to accomplish the collection activity for the first three items (forms FS-5100-32, FS-5100-33, and FS-5100-34) assumes a chemist is performing these duties, based upon a review of their development work. The salary was determined by asking a respondent if an annualized salary of approximately \$80,000 was appropriate for the individuals preparing the collection forms. The response was that this was a correct approximation, considering the cost to the company per year (including benefit package). The average daily cost was calculated by dividing the annual salary of \$80,000 by 261 workdays per year¹. The daily cost was divided by 8 (number of hours in an average workday) to determine an hourly cost (increased to the nearest half dollar for estimation purposes).

To determine the estimated average income for a clerical employee to collect the Material Safety Data Sheets from individual ingredient manufacturers, the proponents of this information collection accessed the "INFORMATION CATEGORY" found on page 4 of "Bureau of Labor News Release" to obtain estimated average income per hour for a manufacturing employee based upon the May 2008 value, \$17.62 (http://www.bls.gov/oes).

13. Provide estimates of the total annual cost burden to respondents or record keepers resulting from the collection of information, (do not include the cost of any hour burden shown in items 12 and 14). The cost estimates should be split into two components: (a) a total capital and start-up cost component annualized over its expected useful life; and (b) a total operation and maintenance and purchase of services component.

There are no capital operation and maintenance costs.

14. Provide estimates of annualized cost to the Federal government. Provide a description of the method used to estimate cost and any other expense that would not have been incurred without this collection of information.

The response to this question covers the actual costs the agency will incur as a result of implementing the information collection. The estimate should cover the entire life cycle of the collection and include costs, if applicable, for:

¹ Average number of workdays in a calendar year

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Employee labor and materials for developing, printing, storing forms

Employee labor and materials for developing computer systems, screens, or reports to support the collection

Employee travel costs

Cost of contractor services or other reimbursements to individuals or organizations assisting in the collection of information

Employee labor and materials for collecting the information

Employee labor and materials for analyzing, evaluating summarizing, and/or reporting on the collected information

Table 4: Estimated Annual Cost to the Government

ACTION ITEM	PERSONNEL	GS LEVEL	HOURLY RATE*	HOURS	SALARY
Employee labor and materials for collecting information	Physical Scientist	GS- 11/5	\$38.47	16	\$ 615.52
Employee labor and materials for analyzing, evaluating, summarizing, and/or reporting on the collected information	Chemist	GS- 12/7	\$47.46	50	\$2,373.00
			Total annual cost		\$2,988.52

^{*} Taken from: http://www.opm.gov/oca/08tables/index.asp, Cost to Government calculated at hourly wage multiplied by 1.3

15. Explain the reasons for any program changes or adjustments reported in items 13 or 14 of OMB form 83-I.

The number of responses and total hours increased from that approved previously. In 2005, this information collection total 6 responses and 26 hours. Estimates were changed based on discussions with respondents and changes in how estimates were calculated. This renewal requests approval for 24 responses and 29 burden hours. See tables 2 and 3 for additional details.

16. For collections of information whose results are planned to be published, outline plans for tabulation and publication.

There are no plans for the Forest Service to publish the results of this information collection activity.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The Forest Service requests approval to omit the expiration date for OMB approval from the forms associated with this information collection. The forms are used rarely, are not expected to change, and are usually collected one time only for each formulation. An expiration date may cause respondents confusion, as they may interpret this as an expiration date for the information provided, which is not the case.

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18. Explain each exception to the certification statement identified in item 19, "Certification Requirement for Paperwork Reduction Act."

The Forest Service is able to certify compliance with all provisions under item 19.

B. Collections of Information Employing Statistical Methods

This information collection does not employ statistical methods.