

FIRE-POOF™
PRODUCT DATA SHEET
INTERIOR FLAME RETARDANT
FOR FABRIC, WOOD and OTHER
DECORATIVE MATERIALS



FABRIC PRODUCT DESCRIPTION: Fire-Poof™ is an interior non-hazardous, water-based flame retardant for most textile fibers, raw wood and OEM uses. Fire-Poof™ is easy to use and has no smell; one product for most fibers. No need to buy more than one product.

TECHNICAL DATA:

Weight - 5-gallon pail is 50 lbs (ready to use), ph=6.5-7. Available in all quantities.
May need up to 24 hrs. to cure depending upon fiber characteristics.
Appearance - appearance of water.
Store between 40° and 100°F. Shelf life, 5 years if unopened. Keep container closed at all times.
Fire-Poof is water-soluble. Do not allow treated surface to any liquid exposure.
Do not add water or change chemical composition in any way. Always make sure cap stays on container.
Do not expose to heat above 300° f. after application.
Certification requires application by a CA State Certified Applicator to meet requirements of the CA State Fire Marshal.
Water based product, use caution when product meets metal as it may cause corrosion.

COMMERCIAL APPLICATION APPROVALS:

Wood Approvals: Class A / Class 1 ASTM E-84 on Plywood, Class B / Class 2 on Birch. CA Title 19 1236.4, NFPA 255, UL 723, UBC 42-1
Fabric Approvals: NFPA 701 & CA Title 19 1237.1, No. C-26501, NYC COA #5687, CAN/ULC-S109-03 Small and Large Scale, FAA 25.853, NFPA 260, BFD 1X-1, ASTM E84, CA 117, UFAC. Please inquire about specific fiber testing information.

READY TO USE APPLICATION INSTRUCTIONS ARE LISTED BELOW

Users of this product must determine the suitability of this product for its intended use. Do not use an airless sprayer as the pressure can atomize the product, which can prevent proper performance. Recommend wear of chemical resistant gloves, goggles and N95 mask for protection. Fire-Poof is ready to use. Pre-vacuuming or cleaning may be needed prior to application. Test for dye stability in inconspicuous area. Some unstable dyes, especially reds are prone to bleeding. We are not responsible for any aesthetic changes that may occur. Apply to clean surface free of dust and dirt with a, "Hudson" type orchard sprayer with a fan spray tip at 40-100 PSI. Spray all exposed surfaces. Other coatings, glue, etc. can increase flame spread and must be tested as a system.
For Fabric: 200-800 square feet per gallon depending on the fiber content and density of the item being treated. All surfaces must be free of dirt or coatings. Testing results by a trained professional will determine chemical amount and cure time if needed. May need to be applied to both sides of the textile to ensure all areas are treated with Fire-Poof™. Not effective on 100% nylon, acetate, acrylic, plastic, metal or surfaces with water, glue or stain / water repellent. Sizing, oil and dirt can also prevent absorption. May be effective over scenic paint, but must be tested for use with specific paint being
For Wood: All wood must be free from coatings such as paint, sealant or dirt. Apply 150 square feet per gallon to raw wood to achieve Class A or Class 1 rating and 250 sq. ft./gal. for Class B or Class 2 rating. Birch plywood must be submerged for 14 hours allowing Fire-Poof to penetrate all sides to achieve a Class B or Class 2 rating.
Cardboard: Should be submerged for approximately 1 minute to penetrate to all sides and middle of cardboard. Length of time may vary to determine effectiveness and desired strength.
Other material: may also need to be submerged until positive results have been achieved. Length of time may vary depending upon saturation capabilities.

CLEAN-UP:

Flush sprayer and tips with warm water and wash hands with soap and water.

CAUTION:

Keep out of reach of children. Do not ingest. Call physician if swallowed. Clean with soap and water all contacted areas. Flush eyes with chemical eye wash or flush eyes with cool water for at least 15 minutes.
If irritation persists, seek advice of a Physician.

WARRANTY AND DISCLAIMER:

Use only as directed. Sellers and Mfrs. only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or inability to use the product. The user assumes all risk and liability whatsoever in connection therewith. Any statement or recommendation not contained herein shall have no force or effect unless contained in an agreement signed by officers of seller and manufacturer. Deterioration of coatings can occur due to cleaning, atmospheric and other conditions. Fire Retardants shall possess the desired degree of permanency and shall be maintained to retain the effectiveness of the treatment under the service conditions encountered in actual use. Periodic testing by a trained official should be performed to insure flame-retardant effectiveness.



Global Harmonized System - Fire-Poof™

1. Identification

Product Identifier Fire-poof Interior Flame Retardant
Other means of Identification Water-based flame retardant saturant.
Recommended use Refer to manufacturer sell sheet.
Recommended restrictions Refer to manufacturer sell sheet.
Manufacturer name Firetect, Inc.
Address 28298 Constellation Road
 Valencia, CA 91355
Country USA
Phone 661-295-3473
Fax 661-295-3880
E-mail info@firetect.com
Website www.firetect.com

2. Hazard(s) Identification

Emergency overview Irritant.
Classification
Hazard symbol Category 5. No symbol.
Signal word Warning.
Potential health effects
Inhalation May be harmful if inhaled. Short-term exposure may cause irritation of nose, throat, and lungs.
Eyes/Skin May be harmful in contact with eyes/skin. Short-term exposure may cause irritation.
Ingestion Ingestion of large quantities may cause symptoms of non-specific irritation of gastrointestinal tract, nausea, vomiting—seek medical attention. May be harmful in contact with eyes/skin. Short-term exposure may cause irritation.
Environmental hazards No known significant environmental effects.
NFPA/HMIS classification
 Health: 0
 Flammability: 0
 Reactivity: 0
 0-Least, 1-Slight, 2-Moderate, 4-Extreme

3. Composition/Information on ingredients

Chemical name	CAS number	Percent
Water	7732-18-5	70-86%
Trade secret per 29 CFR 1910.1200	-	14-30%
NO REPORTABLE HAZARDOUS INGREDIENTS		

4. First-aid measures

Inhalation Remove person to fresh air. If necessary, seek advice of a physician.
Skin contact Wash skin with soap and water. Launder clothing before reuse.
Eye contact In case of eye contact, flush with running water for at least 15 minutes. If irritation persists, seek advice of a physician.
Ingestion If swallowed, induce vomiting, seek medical attention.

5. Fire-fighting measures

Suitable extinguishing media	Carbon dioxide, dry chemical, foam, water spray.
Unsuitable extinguishing media	None.
Specific hazards arising from the substance or mixture	None.
Special protective equipment and precautions for fire-fighters	None.

6. Accidental release measures

Personnel precautions	None.
Environmental precautions	Avoid runoff into storm sewers, ditches, and waterways.
Cleanup measures	Spills should be contained, solidified, and placed in suitable containers for disposal. Wash exposed skin with soap and water.

7. Handling and storage

Precautions for safe handling	Avoid breathing mist. Avoid prolonged skin contact.
Engineering controls	Use local exhaust ventilation if sprayed inside. Otherwise, general ventilation is adequate.
Conditions for safe storage	Store upright in original sealed container in a cool, dry location away from light and strong frost.
Storage temperature	Store between 40°F and 1000°F. Keep cap on container at all times.
Shelf life	Shelf life is 5 years, if unopened.

8. Exposure controls/Personal protection

Exposure controls	Use appropriate engineering controls such as proper ventilation. Where such systems are not effective, wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards.
Personal protective equipment	
Eye/Face protection	Wear goggles to avoid overspray and splashing. Eye and face protection should be in accordance with OSHA 29 CFR 1910.133.
Hand/Arm protection	Rubber or plastic gloves are recommended.
Respiratory protection	Use an N-95 or P-95 mask. If used in a confined area, use respirators in accordance with 29 CFR 1910.134(d)(3)(i)(A) Table 1, 29 CFR 1910.134(d)(3)(iii)(B) and 29 CFR 1910.134(d)(3)(iv)(B).

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Color	Clear.
Odor	Very faint odor.
Odor threshold	Not applicable.
pH	6.5-7.0
% volatile by vol	
Freezing point	32°F
Boiling point	212°F
Specific gravity	1.08
Evaporation rate	
Vapor pressure	Same as water.
Vapor density	Same as water.

10. Stability and reactivity

Reactivity	No special reactivity.
Chemical stability	Stable under normal conditions.

**Global Harmonized System
Fire-Poof™**

Incompatible materials	May tarnish or react to metal, much like water would. Strong oxidizer.
Decomposition materials	None.

11. Toxicological information

Acute toxicity	
Potential health effects	
Inhalation	May be harmful if inhaled. Short-term exposure may cause irritation of nose, throat and lungs.
Eyes/Skin	May be harmful in contact with eyes/skin. Short-term exposure may cause irritation.
Ingestion	May be harmful if swallowed. Possible stomach irritation and nausea.

12. Ecological information

Eco toxicity	No data available.
Persistence and degradability	No data available.
Bio accumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

13. Disposal considerations

Waste disposal of product	Do not discharge product into storm or waste water sewer systems.
Contaminated packaging	Dispose of in accordance with federal, state, and local regulations.
Container disposal	Plastic pails are recyclable. Rinse well before recycling or disposal. Dispose of in accordance with federal, state, and local regulations. Contact local authorities for further information.

14. Transport information

Land transport	
USDOT	Non-hazardous product. Not regulated.
Marine transport	
IMDG	Non-hazardous product. Not regulated.
Air transport	
IATA	Non-hazardous product. Not regulated.

15. Regulatory information

Additional safety, health and environmental regulations	Not applicable.
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16. Other information

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200 and prepared to GHS.

Preparation information

Prepared by

Disclaimer

Firetect®, Inc.


It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information given is presented in good faith and believed to be correct as of the date hereof, based on available data, material components, and similar materials. Firetect®, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used.

FIRE-POOF™ FLAME RETARDANT

IMPORTANT INFORMATION

FOR SOFT-GOODS

FIRE-POOF™ **MAY NOT BE EFFECTIVE WITH THE FOLLOWING SURFACES**
(additional testing may be needed)

- PAINTED
 - ACETATE
 - PLASTIC
 - SOME ACRYLICS
 - ON TOP OF SURFACES WITH WATER OR STAIN REPELLANT. BUT FLAME-RETARDANT MAY WORK WELL WITH STAIN OR WATER REPELLANT ON TOP OF THE FABRIC.
 - STARCH OR SIZING, (may resist or cause the Fire-Poof™ to perform inconsistently)
 - TEXTILES WITH MORE THAN 10% SPANDEX OR LYCRA
 - EXTERIOR OR UV PAINTED SURFACES SUCH AS UV SILK SCREENED INKS.
- NYLON
 - GLUE
 - METAL
- 
- ◆ A cure time may be required for Fire-Poof™ to work. Usually no more than 24 hours, although most of the time, it will be effective upon drying.
 - ◆ Do not use an airless paint sprayer or cup sprayer because its pressure is over 100 psi and may atomize the Fire-Poof™, thus; causing the flame-retardant to not penetrate the surface.
 - ◆ Apply at 40-100 psi using a "Hudson" type sprayer.
 - ◆ All items must be thoroughly dry before folding or rolling for storage or mold can develop.
 - ◆ Do not put treated material in a plastic bag if damp or it can cause white residue or chalkiness. Flame Retardant can crystallize if not completely dry.
 - ◆ Can cause fabric to shrink. Shrinkage can occur at different rates depending upon the fiber content of thread and fabric. If not careful, puckering can occur due to the different shrinkage rates of fabric vs. thread.
 - ◆ Testing should be performed on all fabrics prior to application to verify chemical amount needed, cure time and flame-retardancy. Wet on all sides, but not dripping usually works best. Field testing should be performed by a trained, professional.
 - ◆ NFPA 705 Field Flame Testing should be periodically performed by a trained professional to insure compliance of flame-retardancy.
 - ◆ It is the owner's responsibility to maintain the flame-retardancy of the material. Cleaning and re-treatment schedule is recommended. Check with your Fire Authority who can recommend how often to re-treat the surface. Dry cleaning is preferred as the Fire-Poof™ is water soluble. Re-treatment is recommended if the fabric comes in contact with enough liquid to dilute the flame retarding properties; or if the fabric gets dirty.
 - ◆ All chemical safety requirements must be followed when applying Fire-Poof™. Chemical goggles, N95 mask and gloves should be worn when handling all chemicals.
 - ◆ If Fire-Poof™ comes in contact with the skin and an open sore exists, it may sting; thoroughly wash and dry hands and do not repeat contact.
 - ◆ Due to different body chemistries, Firetect cannot guarantee against any physical reactions, although, oral and dermal testing has been performed and is shown to be safe to use.
 - ◆ All California Flame-Retardants Application Certificates can only be provided by a Licensed California Certified Applicator.
 - ◆ Fire-Poof™ is water based and may rust metal surfaces.
 - ◆ Fire-Poof™ is water soluble and can wash away upon contact with liquids.

10/2014

FIRE-POOF™ FIELD TEST PROCEDURES FOR TEXTILES ONLY (DOES NOT APPLY TO WOOD)

These procedures are to be used if you would like to perform a, “Field Test”. If you chose to test samples, it is at your own risk. All safety guidelines must be followed to prevent life and property damage. Make sure that the area is free from draft and that there are no flammable items in or around the testing area. Have a certified fire extinguisher within reach. Tongs measuring a minimum of 8” should be used to hold the sample being tested. Make sure that while testing the sample, there is a 5-gallon pail of water below the sample so that the burned sample can drop into the 5-gallon pail of water safely.

Enclosed is NFPA 705 Field Flame Testing Procedures. This is used as a guideline by Fire Authorities to give them an idea of how decorative material will or will not burn. Use NFPA 705 Field Flame Testing Procedure after fabric has cured, (usually 24 hours after specimen has dried). Follow all safety precautions to ensure fire safety.

Listed below are instructions on how to apply Firepoof™ for testing purposes. This will give the applicator information as to how much flame-retardant must be applied and how long the cure time will be. Any shrinkage or dye stability should also be noted at this time. Please note that there are different test procedures for spandex. Please contact Firetect for information on spandex. Also, the most difficult fibers to treat are acetate, acrylic and nylon. Please see Firetect’s “Fire-Poof™ Flame Retardant Important Information for Soft-Goods”.

- STEP 1: Cut 3 pieces of fabric to be tested. Each piece should be a minimum of 10”x10”. Note size of pieces if testing for shrinkage as well.
- STEP 2: Label one piece with the date, time of application, job description and, “1 side”
 - Label the second piece with the date, time of application, job description and, “2 sides”.
 - Label the third piece with the date, time and, “not treated”. This piece will be the, “Control Sample” used to observe the difference between treated and untreated. This should also be kept with your files.

For safety precautions, chemical gloves, goggles and mask should be worn when testing and spraying.

- STEP 3: Using a spray bottle containing Firepoof™, spray the sample labeled, “one side” with Firepoof™ on the front side of the fabric. Observe how the Firepoof™ is absorbing and test for dye stabilization. If Firepoof™ absorbs to the back side of the fabric, this will be a good indication that only one side of the fabric will need to be treated in order to perform properly. Note how much needs to be sprayed, i.e. light, or heavy and also note how the fabric is reacting to the treatment.
- STEP 4: Follow the same procedures in step 3, but spray both sides of the sample on the one labeled, “two sides”.
The fabric needs to absorb the Firepoof™ on all sides; it does not need to be dipped or dripping.
- STEP 5: Note how long it takes for the samples to dry.
- STEP 6: Let cure for 24 hours in normal atmospheric conditions similar to the atmospheric conditions it will be used in. Average cure time is 24 hours before the flame-retardant will work, but sometimes, cure time can be longer.
- STEP 7: Using all safety precautions, follow NFPA 705, Field Flame Testing Procedures, test the performance of the Firepoof™ to verify which method of application works. The goal is that there should be no flame or orange glow when the match is removed from the specimen or the treated sample.

Cure time is important. This is why the fabric must be treated a minimum of 24 hours, (or as long of a period that is required for cure time) prior to occupancy of the premises to ensure fire safety.

Please call the Technical Support Department at Firetect® if you have any questions.

NFPA 705-FIELD FLAME TEST FOR TEXTILES AND FILMS

When performing this procedure, make sure testing is performed over a bucket of water. Never perform indoors; must be free from draft and away from flammable items. User assumes all risk and liability whatsoever. Must only be done by a trained fire official.

This is the procedure that Fire Officials use as a guideline only of the flame-resistancy of a particular item and should not be used to determine if a particular item will pass fire testing performed in a qualified laboratory.

Perform this test at your own risk following all fire and health safety procedures.

The more experience you have at this, the more accurate your results will be.

Specimens should be a **minimum** of 1/2"x4" using tongs to prevent burning of skin. Be careful not to burn clothing or sleeves. A large pail of water should be placed beneath the sample to catch burning or dripping samples.

The fire exposure should be from a common wood kitchen match or source with equivalent flame properties and should be applied for 12 seconds. Draft free & safely away from flammable materials.

Hold specimen vertical, at the center of the bottom edge and the bottom edge 1/2" above the bottom of the flame. Do not follow flame up the textile. After 12 seconds, move match gently away.

Requirements: During the exposure, flaming should not spread over the complete length of the sample or in excess of 4" from the bottom of the sample. Not more than 2 seconds of after flame. Breaking or dripping particles should not continue to burn after they reach the floor.

Warp, (length) & fill (width) may be tested depending on the situation. Firetect recommends that the fabric be tested in both directions.

VERTICAL VS. HORIZONTAL:

All flame testing must be performed using complete safety procedures.

The standard fire resistance tests are performed vertically. Some decorative materials installed horizontally may exhibit different burning characteristics. Therefore, they must be judged on an individual basis. Fire Marshals may perform additional tests, as he/she deems necessary to insure adequate fire resistance.

There is no correlation between the testing provisions found in NFPA 705 and the testing methods of NFPA 701. Field application of the NFPA 705 testing procedures is useful but must be used with good judgment and within limitations. Field tests should not be relied on as a sole means for ensuring adequate flame resistance of decorative materials. However, they are useful in augmenting a comprehensive regulatory program.

Disclaimer: Any person performing this test referenced above takes complete responsibility to comply with all safety practices and requirements and assumes complete responsibility for their own tests.

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