

BanFire

THE 'GREEN' FIRE RETARDANT



Keeps flames from spreading on Drapes, Uniforms, Clothing, Upholstery, Paper and most absorbent material.

BanFire is an environmentally friendly product which is used to retard fire in most absorbent fabrics, including polyesters. It forms a thermal insulation barrier that prevents dangerous flames from spreading. Completely clear and odorless, BanFire also inhibits the development of toxic smoke.

BanFire is used by schools, daycares, nursing homes, restaurants and other public facilities in order to meet NFPA 701 requirements for fire safety in Life Code 101 situations. Approved by CalFire for use in California public spaces.

Applications: Use to treat materials and surfaces such as drapes, curtains, posters, boxes, uniforms, clothing, carpeting, packing materials, motor home interiors, and holiday decorations for added safety against fire. Average coverage is 400 sq ft per gallon, with two coats. NOTE: always check with your fire marshal to be sure he will accept BanFire for your application.

Directions: BanFire is easy to use. Just spray BanFire on the item or surface being treated, let dry, then repeat. In all applications, allow BanFire to completely penetrate the item or surface. Allow material to air-dry completely. If you are using BanFire to fire-retard clothing, carpeting and other fabrics, it is recommended that BanFire be reapplied after washing. Re-treatment every 3-5 years may be needed depending on exposure to sunlight and dust/dirt. Once treated, the product is effective until washed out. Test on small sample to ensure against adverse reaction. Do no use on jute burlap. Avoid over-spray onto flat latex paint, since it may spot.

- **NFPA 701 tested by Nationally Recognized Lab TexTest Fabric Testing.**
- **Approved for use in California, CalFire Title 19 Section 1237.1, registration #C-26701**
- **ASTM E-84 Class B for Wood**
- **Inhibits Toxic Smoke Development**
- **Helps Prevent Spread of Dangerous Flames**
- **Non-Corrosive & Non-Staining**
- **Easy to Apply & Safe to Store**
- **Non-Toxic, Eco-Friendly - NO PBDE's or Toxins**
- **Curtains, Paper, Hay & other Absorbent Materials**

Technical Information:

BanFire fire retardant was tested and passed NFPA 701 Test 1 by TexTest Fabric Testing. This makes it acceptable for most Life Code 101 applications for hanging fabrics in public spaces.

10.3.1* Where required by the applicable provisions of this Code, draperies, curtains, and other similar loosely hanging furnishings and decorations shall meet the flame propagation performance criteria contained in NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.

BanFire also passed CA Title 19 Section 1237.1 for California, (C-26701) and is also rated as a Class B retardant for ASTM E84 for construction materials, tested by QAI/SGS Labs in Tulsa, with a 45 flame spread and 115 smoke development.

Availability:

BanFire is available in a convenient 32 ounce pump spray, or in 1, 5, 55 or 275 gallon containers for bulk applications. No mixing or dilution is required. BanFire is considered non-toxic. Toxicity information and MSDS information are available at www.banfire.net.

RDR Technologies
Oklahoma City, OK
405-702-0055
www.rdrtechnologies.com

RDR
TECHNOLOGIES

MATERIAL SAFETY DATA SHEET



BanFire is a water-based fire retardant designed to reduce fire propagation in fabrics. It has passed the NFPA 701 Test 1 standard, with testing done by TexTest Testing Services. As such, it meets most Life Code 101 requirements for hanging fabrics in public spaces. It has passed CA Title 19 Section 1237.1 test and is registered with CalFire (C-26701). It is also considered a Class B retardant for wood, according to ASTM E84 standard for construction materials (testing by QAI Labs, 45 Flame Spread and 115 Smoke Development). One gallon of BanFire will treat 400 square feet with two applications for all three standards.

IDENTIFICATION

Product Name: BanFire
Manufacturer: RDR Technologies
Address: 835 SE 30th St., Suite C
 Oklahoma City, OK 73129
Phone: 405-702-0055

CAS#: Not issued
Chemical Family: Amino Salt in Water Solution
TSCA Inventory: All components of flame retardant composition appear on the Inventory of Chemical Substance published by the EPA.
DOT Hazard Class: Not Applicable
DOT Label Requirements: Not Applicable

Physical Hazard Rating:

National Fire Protection Association

Health 0
Flammability 0
Reactivity 0

HAZARDOUS INGREDIENTS /
IDENTITY INFORMATION

If handled in accordance with good industrial hygiene and safety practices, is not a health hazard nor does it present unusual physical or health hazards.

OSHA and AGGIH have not established specific exposure limits for this material. It should be treated as a nuisance when dried to form a powder with exposure Emits as follows:

OSHA PEL: 8-hours
 TWA: Total 15 mg/m³; Respirable 5 mg/m³
 AGGIH TLV: 8-hours
 TWA: Total 10 mg/m³-, Respirable 5 mg/m³

PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance: Clear aqueous solution, odorless.
Boiling Point: Not Applicable.
Vapor Pressure: Not Applicable.
Vapor Density: Not Applicable.
Solubility in Water: Soluble in water
Melting Point: Decomposes at a temperature range beginning at 160°C.

FIRE & EXPLOSION HAZARD DATA

Flash Point: Not Applicable.
Flammable Limits: Not Applicable.
Fire Extinguishing Media: Use that which is appropriate for surrounding fire.
Special Fire Fighting Procedures: Firefighters should use full protective clothing and a self-contained breathing apparatus.
Unusual Fire/Explosion Hazards: Thermal decomposition can yield ammonia, cyanic acid, carbon dioxide, carbon monoxide, oxides of nitrogen and phosphorus oxide. Fumes can be toxic in a confined space.

REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Not Applicable.
Incompatibility with other Materials: Avoid contact with strong oxidizing agents.
Hazardous decomposition Products: Thermal decomposition in the presence of air may yield ammonia, carbon monoxide, carbon dioxide, cyanic acid, phosphorus oxides and oxides of nitrogen.
Hazardous Polymerization: Will not occur.

HEALTH HAZARD DATA

Eye Effects: Contact with the aqueous solution may be irritating to the eyes and may cause burning, tearing, and redness.
Skin Effects: Prolonged or repeated contact may cause skin irritation. Avoid skin exposure to water solutions or slurries.
Inhalation: Not Applicable
Ingestion: Ingestion of excessive quantities may cause irritations of the digestive tract, give a large glass of milk. Do not induce vomiting. Call a physician immediately.
Medical Condition Aggravated by Exposure: Skin conditions may be aggravated by aqueous solutions.
Chronic Hazard: No known chronic hazards. Not listed by OSHA, NTP or IARC as a carcinogen.
Medical Conditions Generally Aggravated by Exposure: None known. Possibly skin diseases

SHIPPING GUIDELINES

Non-HAZMAT, Non-Hazardous
Shipping Class: 60
Harmonized Code: 38.09.91.90
Packing Group: N/A

FIRST AID PROCEDURES

Eyes: For direct contact, flush the affected eye(s) with clean water. If irritation or redness develops, seek medical attention.
Skin: Remove contaminated clothing. Wash affected area with mild soap and water. If irritation or redness develops and/or persists, seek medical attention. Inhalation: If irritation to nose, throat, and/or lungs occurs, move victim away from exposure, and into fresh air. If irritation persists, seek medical attention.

PRECAUTIONS FOR SAFE HANDLING
AND USE

Spills: Isolate spill and restrict entry. Sweep up and package appropriately for disposal. Contact state, local and federal authorities as required.
Waste Disposal Method: Dispose of product in accordance with local, county, state and federal regulations.
Storage and Handling: Store tightly closed containers in a cool, dry, well ventilated area. Use good personal hygiene practices. Avoid product contact.

PERSONAL PROTECTION MEASURES

Respiratory: Use NIOSH approved filter-type respirator as needed.
Gloves: The use of gloves impermeable to the material is advised to prevent possible skin irritation.
Eyes: Approved eyes protection to safeguard against potential eye contact, irritation or injury is recommended.

DISCLAIMER

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and the product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.