

MATERIAL SAFETY DATA SHEET



Fire'z Off Fire Retardant is a fire retarding agent specially formulated to effectively and safely protect all Class A materials. **Fire'z Off Fire Retardant** is a unique and revolutionary product, which retards fires by stopping dangerous flames from spreading. **Fire'z Off Fire Retardant** also inhibits the development of hydrocarbon smoke. **Fire'z Off Fire Retardant** is non-flammable, safe to store, handle and use, leaves no residue, and is environmentally safe.

Capabilities

Retarding Power: After treatment of retardant on all Class A type surfaces there is zero flame spread.

Applications Spray on Class A surfaces of all types (wood, paper, cotton, furnishing, all non-polymer surfaces).

Cleanup: None needed. Leaves no residue.

Characteristics

pH: pH of concentrate is 7.0.

Flash Point: Negligible.

Boiling Point: 212° F.

Odor: Mild fresh scent. Does not contain d-limonenes. Clear color.

Water Solubility: Complete.

Shelf Life: Indefinite when stored in closed containers between 32°F and 120°F.

Dilution Strength: Do not dilute.

Residue: Product leaves little to no residue.

Environmental & Safety Considerations

Biodegradability: 100% in 21 days under ideal conditions.

Hazardous Components: No components are listed in the NIOSH Recommendations for Occupational Health Standards, 1988, or are defined as hazardous by SARA, CERCLA, or RCRA. No OSHA PEL's are established for other ingredients.

Handling: Retardant is neutral. It will remove oil from the skin and will irritate the eyes if sprayed directly into them. When handling bulk concentrate, eye protection, gloves, and impervious clothing should be worn when there is danger of splashing, prolonged exposure to vapor, or prolonged skin contact, as with all chemicals. Do not ingest, splash into eyes, or inhale for prolonged periods.

Disposal: Retardant itself may be disposed through municipal systems.

IDENTIFICATION

Date Prepared: December 10, 1999

Formulation Number: JG302R

Trade Name: Fire'z Off

Product: Class A Fire Retardant

Distributor: RDR Technologies

Phone: (405) 702-0055

INGREDIENTS AND HAZARD CLASSIFICATION

No components are believed to be hazardous, or listed in the NIOSH Recommendations for Occupational Safety and Health Standards, 1988, or are listed as hazardous by SARA, CERCLA, or RCRA. No OSHA PEL's are established for any of the other ingredients.

PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 212° F.

Vapor Pressure (mm Hg): Same as water.

Solubility in water: 100%

Specific Gravity: 1.09 @ 60° F.

pH: 7.0

Appearance and Odor: Straw colored liquid, mild smell.

FIRE AND EXPLOSION DATA

Flash Point: Not applicable.

Flammable Limits: Non-flammable.

LEL: Not applicable.

UEL: Not applicable.

Extinguishing Media: Not applicable.

Special Fire Fighting Procedures: None.

Unusual Fire and Explosion Hazards: None.

REACTIVITY DATA

Stability: Stable.

Incompatibility: None.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

HEALTH HAZARD DATA

Exposure Limits

OSHA PEL: Not established.

ACGIH TLV: Not established.

Routes of Entry

Inhalation: Yes.

Skin: Yes.

Ingestion: Yes.

Signs and Symptoms of Exposure

Skin: Negligible hazard. Not a primary skin irritant.

Eyes: Not a primary ocular irritant.

Inhalation: Negligible.

Ingestion: Hazard is extremely low. Material is considered non-toxic.

First Aid

Eyes: Immediately flush eyes with water for 15 minutes. Seek medical aid if irritation persists.

Skin: Flush affected area and rinse with water.

Inhalation: Negligible. Remove to fresh air.

Ingestion: Drink water. Obtain medical attention if necessary.

Carcinogenicity

NTP? No.

IARC? No.

OSHA Regulated? No

PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or Leak Procedures: Rinse affected area with water. Will not harm the environment.

Waste Disposal Method: Dispose as non-hazardous waste in accordance with local regulations.

Storage and Handling Precautions: Store in temperatures from 32° F to 120° F in closed containers to prevent evaporation and deterioration. Freezing will not damage material as long as container remains intact.

Other Precautions: Although components have low hazard levels, the product will remove oils from the skin like common soap. Avoid prolonged skin contact.

CONTROL MEASURES

Respiratory Protection: Not required.

Ventilation: No special ventilation is required.

Protective Gloves: Wear if there is prolonged skin contact.

Eye Protection: Wear if needed to prevent reasonable probability of eye contact.

Work/Hygenic Practices: Do not ingest, splash into eyes, do not inhale for prolonged periods.

HAZARD CLASSIFICATION

IMO Hazard Class and Number: Non-hazardous.

UN Number: Not applicable.

US DOT Hazard Class: Not regulated by DOT.

US DOT Identification Number: Not applicable.

ENVIRONMENTAL DATA

Biodegradability: Product is 100% biodegradable in an active environment within 21 days.

Toxicity: In accordance with U.S. EPA Office of Pollution Prevention and Toxics criteria for ranking the acute toxicity of chemicals, Fire'z Off is considered to be of low concern.

The information presented in this MSDS is believed to be factual. However, nothing contained in this information is to be taken as a warranty of any kind by RDR Technologies. The user should review any recommendations, in the specific context of the intended use, to determine whether they are appropriate.