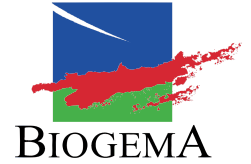


FF103B



CLASS A FOAM CONCENTRATE

DESCRIPTION

BIOGEMA® FIRE-TROL® FIREFOAM® FF103B Class A Foam Concentrate is specially formulated for aerial and ground applications. Class A foams are used in direct initial aerial attack, for mop up, and for suppression of deep seated fires. The basic action of the foaming agents is physical. Foaming agents improve and extend the cooling effect of water and reduce the gaseous exchanges delaying moisture loss around the fuel cell producing a progressive release of water and wetting agent. They form a thin insulating layer which produces a better coating on the fuel.

Class A foams have been shown to significantly improve the effectiveness of water through reduced surface tension allowing the water to penetrate deeper into the ground. Use of Class A foam results in faster knockdown and reduced risk of reignition. Class A foams are ideal for use in Compressed Air Foam Systems (CAFS).



APPLICATION	Long-Term Retardant	Gel	Class A Foam	Water
Indirect Attack	✓✓✓✓	✓✓	✓	
Direct/Parallel Attack	✓✓✓✓	✓✓✓✓	✓✓	✓
Interior Structure Attack		✓✓	✓✓✓✓	✓
Structure Protection-Indirect Application	✓✓✓✓	✓✓✓✓	✓✓	✓
Structure Protection-Direct Application		✓✓✓✓	✓✓✓✓	✓
Mop Up	✓✓	✓✓	✓✓✓✓	✓
Prescribed Burn Control	✓✓✓✓	✓✓✓✓	✓✓	✓

✓✓✓✓ = Superior Effectiveness

✓✓ = Good Effectiveness

✓✓✓ = Excellent Effectiveness

✓ = Baseline Effectiveness

SATURATION AND VISIBILITY

BIOGEMA FIRE-TROL FIREFOAM FF103B forms a layer of foam which is readily identifiable whether applied from the air or from the ground. The solution provides excellent coverage of tree canopy and shrubs. It provides deep penetration into crowns, surface and ground fuels.

Wetting Rate: 11 to 30 mg/cm² at 0.6% 9 to 18 mg/cm² at 0.3%

COMPOSITION

High efficiency surfactants, foaming/wetting agents, corrosion inhibitor.

PRODUCT CHARACTERISTICS

Aspect	A low density, amber liquid
Specific Gravity (concentrate)	1.03 kg/dm ³ at 77 °F (25 °C)
pH (concentrate) (10%)	9 to 9.5 @ 68 °F (20 °C)
pH (solution at 0.6%)	6.6 @ 68 °F (20 °C)
Mix Ratio	0.2% – 0.6% vol
Viscosity (concentrate)	<200 cps @ 32 °F (0 °C)
Viscosity (aqueous solution 0.6%)	-40 @ 77 °F (25 °C)
Flash Point	>212 °F (100 °C) (NF T60-103)
Freezing Point	4 °F (-15.6 °C) (CEREN 10/2008)
Melting Point	20 °F (-7 °C)
Surface Tension (mN/m at 20 °C)	Solution 0.6%: 33.1 (CEREN 10/2008)

For more information, contact any of our worldwide Perimeter Solutions Fire Safety offices or visit us at Biogema.com or Perimeter-Solutions.com

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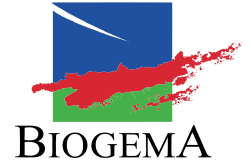
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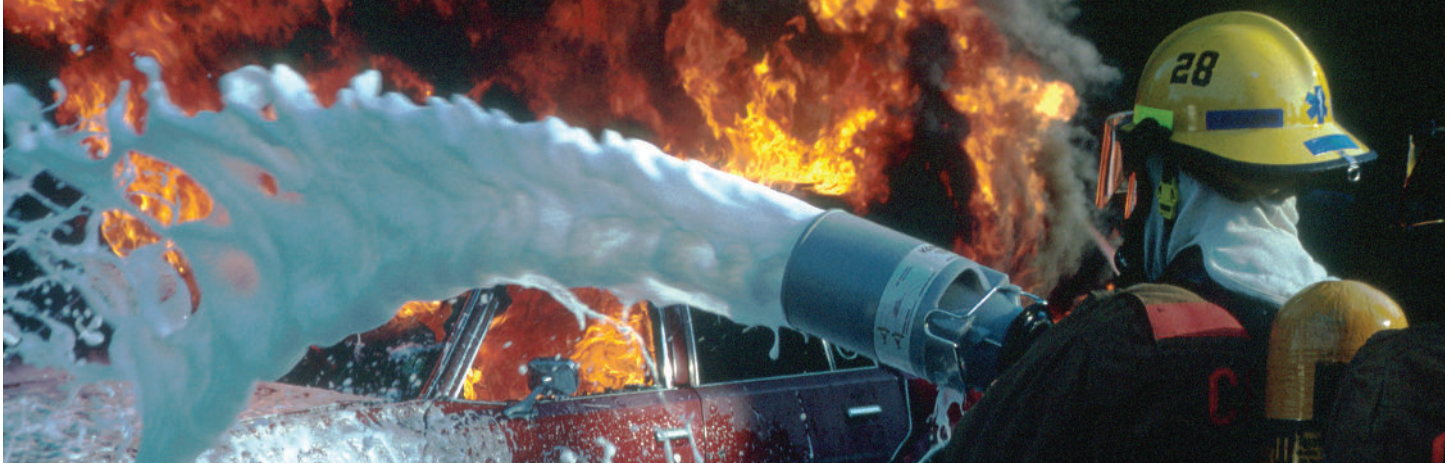
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FF103B



CLASS A FOAM CONCENTRATE



CORROSION

No corrosion on tested alloys (Alu 2024, steel 25CD4, brass). Inspection under a metallurgical microscope failed to produce any indication of corrosive attack.

TOXICOLOGICAL PROPERTIES

The product is biodegradable. The product has no apparent effect on plant germination or growth. 96h LD 50 juvenile rainbow trout is 41.1 mg/l (concentrate) and 8220 mg/l (solution 0.5%) Liquid concentrate and a solution at 0.5% have passed toxicological and ecotoxicological tests in 2006 in compliance with the OECD guidelines and European Directives (2005).

ENVIRONMENTAL INFORMATION

BIOGEMA FIRE-TROL FIREFOAM FF103B Class A Foam Concentrate does not contain any PFAS ingredients commonly found in fluorinated Class B foam concentrates. Perimeter Solutions foam manufacturing process is intentionally separated between fluorinated and non-fluorinated concentrate types, thus eliminating the potential for cross contamination or residual contamination.

STORAGE

Concentrate must be stored in polyethylene-lined containers. Do not store above 151 °F (66 °C).

PACKAGING

BIOGEMA FIRE-TROL FIREFOAM FF103B packaging options include 20 litre pails, 200 litre drums, 1000 litre totes and bulk trucks. Contact your local authorized BIOGEMA distributor or factory representative for details. https://www.biogema.com/contact/fire-fighting_115.html

HANDLING PRECAUTIONS

- FOR DETAILED SAFETY INFORMATION, please refer to the SDS.
- WD881 concentrate is moderately irritating to eyes and slightly irritating to skin. Prolonged or repeated contact with concentrate may produce skin irritation and inhalation of mists can irritate the nose and upper respiratory system.
- Eye Protection: Goggles are recommended when handling concentrate. If in the eyes, flush immediately with plenty of water for at least 15 seconds.
- Skin Protection: Wear protective clothing and chemical resistant gloves when handling concentrate. Exposed skin should be washed as soon as possible.
- Respiratory Protection: None required. Avoid breathing mist of vapor.
- Other precautions: Keep container closed. Use with adequate ventilation.
- These precautions and practices are similar to those used with any heavy-duty detergent.
- For complete SDS, visit www.biogema.com



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