NATIONAL FOAM

ASSURANCE
NATIONAL FOAM

Responder®

Class "A" Foam Concentrate

NFC600

- Premix is stable for more than 30 days (using potable water)
- Compatible with class A/B systems and compressed air foam systems
- Can be used with fresh, brackish and sea water, plus exhibits good formability, even in cold water
- Contains NO alcohols
- Designed for Municipal fire fighters battling wildland fires
- Can also be used as a wetting agents
- Can be used as a training foam at 1%, 3% and 6% foam concentrate
- No intentionally added PFAS, PFOA or PFOS

Responder foam concentrate works in two ways. First, Responder improves the penetrating capability of water. It reduces the surface tension of plain water which allows it to penetrate surfaces where water might normally run off, to reach deep-seated fires. This helps reduce the amount of water required to extinguish the fire and also provides quicker knockdown. Secondly, Responder increases the heat absorbing capabilities of water. Foaming ingredients give water the ability to adhere to vertical surfaces which allows the water longer contact with the fuel. The longer the water is in contact with the fuel, the more heat it is able to absorb. A coating of Class A foam may also be used for exposure protection to prevent fuels from igniting by raising their moisture content and providing a tough protective barrier to an oncoming flame front.

Applications

- Structural Fire Fighting
- Forestry
- Mining
- Industrial
- Tire Fires
- Hydrocarbon Spill Control

Typical Physical Properties

Appearance	Colorless Liquid
Specific Gravity at 77°F(25°C)	1.04
pH	8.2
Viscosity @ 77°F (25°C)	5 cST
Viscosity @ 35°F (2°C)	10 cST
Min Usable Temperature	35°F(2°C)
Max Usable Temperature	120°F(49°C)
Freezing Point	12°F (49°C)
Flash Point:	
TAG Closed Cup Method	>200°F

Responder can also be used as a training foam for non-fire scenarios proportioned at 1%, 3% or 6% to provide foam expansion similar to AFFF foam concentrates.

Storage and Handling

Responder should be stored in its original shipping container or in tanks or other containers which have been designed for such foam storage. Recommended construction materials are stainless steel (Type 304L or 316), high density cross-linked polyethylene, or reinforced fiberglass polyester (isophthalic polyester resin) with a vinyl ester resin internal layer coating (50 -100 mils).

Foam concentrates are subject to evaporation which accelerates when the product is exposed to air. Storage tanks should be sealed and fitted with a pressure vacuum vent to prevent free

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exchange of air. The recommended storage temperature range for Responder concentrate is 35°F (2°C) to 120°F (49°C).

Refer to National Foam product data sheet NFC950 for further information.

Responder is freeze/thaw stable. Should the product freeze during shipment or storage, no performance loss is expected upon thawing.

Samples of Responder, premixed with potable municipal water supplies, have been shown to be stable and not suffer any significant loss of expansion or drainage properties after 30 days. Actual results may vary based on the water supply.

It is recommended that Responder not be mixed with any other type of foam concentrate in long term storage. Such mixing could lead to chemical changes in the product and a possible reduction in or loss of its firefighting capability. Most expanded foams are compatible for side-by-side application during an incident.

Shelf Life, Inspection, and Testing

The shelf life of any foam concentrate is maximized by proper storage conditions and maintenance. Factors affecting shelf life are wide temperature changes, extreme high or low temperatures, evaporation, dilution, and contamination by foreign materials. National Foam firefighting foam concentrates have been tested and have not shown significant loss of performance even after 10 years or more, provided annual testing and proper storage recommendations are followed. Refer to National Foam technical bulletin NFTB240 for recommendations on foam concentrate storage and preservation.

Annual testing of all firefighting foams is recommended by the National Fire Protection Association (NFPA). National Foam provides a Technical Service Program to conduct such tests. Refer to National Foam product data sheet NFC960 for further details on Technical Service Program, or contact your National Foam representative.

Environmental and Toxicological Information

Responder is biodegradable. However, as with any substance, care should be taken to prevent discharge from entering ground water, surface water, or storm drains. With advance notice, RESPONDER may be treated by local biological sewage treatment systems. Since facilities vary widely by location, disposal should be made in accordance with federal, state and local regulations.

Responder has not been tested for acute oral toxicity, primary skin and primary eye irritation. Repeated skin contact will remove oils from the skin and cause dryness. Responder is classified as a primary eye irritant, and contact with the eyes should be avoided. Users are advised to wear protective eyewear. If the foam concentrate enters the eyes, flush them well with water and seek immediate medical attention. For further details see the Responder Safety Data Sheet NMS600.

Ordering Information

Container	Shipping Weight	Shipping Dimensions	Part Number
5-Gallon Pails (19 liters)	46 lb. (20.9 kg)	1.13 cu. ft.^{3} (0.032 cu. m)	2170-0340-6
55-Gallon Drums (208 liters)	499 lb. (226.3 kg)	11.1 cu. ft.^{3} (0.314 cu. m)	2170-0481-6
275-Gallon IBC Reusable Tote Tank (1041 liters)	2519 lb. (1142.6 kg)	48.2 cu. ft.^{3} (1.365 cu. m)	2170-0725-6
330-Gallon IBC Reusable Tote Tank (1249 liters)	3016 lb. (1368.1 kg)	55.8 cu. ft.^{3} (1.580 cu. m)	2170-0033-6
Bulk	8.67 lb./gal. (1.04 kg/l)		2130-0001-6

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National Foam operates a continuous programme of product development. The right is therefore reserved to modify any specification without prior notice and National Foam should be contacted to ensure that the current issues of all technical data sheets are used.
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