

# USERS GUIDE



## PROPERTIES

**BLAZETAMER380™** is a milky white, non-toxic, non-corrosive, liquid concentrate polymeric elastomer. When mixed with water long-chain linear molecular bonds are created. When mixed product is applied to a fire an endothermic reaction occurs that significantly reduces heat, thus suppressing fires by affecting the fuel and heat legs of the fire triangle.

## SAFETY

**BLAZETAMER380™** is environmentally safe and proven harmless to humans, animals and vegetation when used appropriately in firefighting scenarios. It complies with Work Health Safety Regulations for firefighters. It is recommended that goggles/eye protection, gloves and long sleeved clothing is worn when working in areas where mixed product has been applied. If product contacts skin or eyes wash / flush with water.

**BLAZETAMER380™** can be slippery in both the concentrate and mixed state. Wear appropriate safety footwear for fireline operations. Slip and fall risks can be mitigated through briefings and on site assessments in areas of the fireline that contain rocks, logs, slope and smooth surfaces since they may remain slippery for up to an hour after application. While applied surfaces may be slippery and pose a hazard, an overall risk management assessment that includes the advantages gained; such as the reduction of acres burned, chains of required fireline, significant reduction in heat from the fire and the amount of energy required to suppress and mop-up fires, should also be considered.

## HANDLING

When handling containers of concentrate, it is recommended that gloves made of impervious material, such as neoprene are worn.

## MIXING

**BLAZETAMER380™** must be mixed at rates that are in accordance with agency policies.

Tank Size - gallons	BLAZETAMER380™			
	0.1%	0.2%	0.4%	0.65%
5	0.6oz.	1.3oz.	2.5oz.	4.1oz.
100	0.4qts	0.8qts	1.6qts	2.6qts
125	0.5qts	1.0qts	2.0qts	3.25qts
200	0.8qts	1.6qts	3.2qts	5.2qts
250	1.0qt	2.0qts	4.0qts	6.5qts
500	2.0qts	4.0qts	8.0qts	13.0qts
750	3.0qts	1.5gal	3.0gal	4.88gal

### 5-Gallon Tanks

1. Pour in proper volume of concentrate
2. Fill backpack tank or container with water and encourage agitation with water stream.
3. Recommend rates of 0.1–0.2% (a shot glass is 1-1.5 ounce). Do not exceed this rate or resultant increased viscosity may inhibit flow through nozzles.

### Equipment Tanks

1. Fill tank with water, start pump and begin recirculation
2. Pour in proper volume of concentrate
3. Recirculate for 2-5 minutes
4. OR – add concentrate to empty tank and add water, same as for 5-gal. tank
5. When adding water to partially filled tanks with residual mixed product
  - Use same procedure as above only add concentrate commensurate with added water volume
6. After every 4 loads, the next load can be recirculated without adding concentrate to take advantage of residual product and to flush the system.

### Aircraft

Several options are available for injecting concentrate into tanks or buckets for both helicopters and air tankers. Contact G5 BioSolutions, LLC for details and assistance.

## BLAZETAMER380™ CONTAINER SIZES

- 264-gallon (1,000 liter) totes
  - Tanker Bases / Helibases
- 5-gallon containers
  - Helicopters, portable aircraft bases
- 1-quart containers
  - Ground equipment tanks
  - Extra quart-sized containers and pouring spouts are available to conveniently transfer product from 5-gallon containers while in the controlled environment of a shop or fire cache.



North Carolina Forest Service ready for action with 5-gallon containers of **BLAZETAMER380** & **FF-PIU FastFiller**.

## MIXED BLAZETAMER380™

Can be tank mixed and stored in tanks for weeks or months without causing damage.

## NON-COMPATIBLE MATERIALS

**BLAZETAMER380™** is a polymer and may react with other like-materials, such as plasticized PVC or low density polyethylene, and may cause deflection after extended use with these materials. **BLAZETAMER380™** is most compatible with Viton. It is best if non-metal pump parts, seals or O-rings and fittings are made of compatible materials, such as Viton.

**Asphalt surfaces** will be damaged if **BLAZETAMER380™** concentrate is spilled on it and is not treated immediately and properly.

## MIXING BLAZETAMER380™ WITH GEL PRODUCTS, FOAM OR RETARDANT

There will be no negative affects if the tank of an aircraft contains residual amounts of another product, is filled with water and **BLAZETAMER380™**, and then dispensed through a door or gate system.

If **BLAZETAMER380™** is mixed with gel or foam in an injection system the products may coagulate and cause screens in the system to plug. This reaction could also cause hose nozzles to plug. To ensure this does not happen it is recommended that injection systems are thoroughly cleaned and tanks are rinsed before **BLAZETAMER380™** is introduced.



## THOROUGH CLEANING OF INJECTION SYSTEMS

can be achieved by flushing the system with **ELASTOKLEEN380™**, available through G5 BioSolutions, LLC.

1. Drain all product from the system.
2. Fill the system with **ELASTOKLEEN380™**
3. Pump all **ELASTOKLEEN380™** from the system into its original container.
4. Dispose of "contaminated" **ELASTOKLEEN380™** appropriately.



Pennsylvania Department of Conservation & Natural Resources set for SEAT operations with a tote of **BLAZETAMER380**, **FF15** with **FF5**

## BLAZETAMER380™ SPILLS

Care must be taken to limit spills onto unintended surfaces. Set up transfer operations on natural surfaces when possible. If a spill occurs on a smooth surface it will become slippery until treated properly. If spills occur use absorbent materials to cover the area then dispose according to local regulations and agency policies.

1. Secure container that is causing spill
2. Cover concentrate with absorbent material (floor-dry, kitty litter, soil)
3. Dispose of saturated material appropriately
4. After concentrate is removed the area can be flushed with water – doing so prior to absorbing concentrate will result in a slippery surface.

### **IT IS RECOMMENDED THAT SPILL CONTAINMENT TRAYS AND/OR ABSORBENT MATERIALS ARE READILY AVAILABLE**

and in place to limit negative effects from spills. To minimize the chance of spilling concentrate the appropriate size of container should be used to fill tanks or hoppers.

**IF A SPILL OCCURS ON AN ASPHALT SURFACE** it is recommended that it is covered with ferrous iron sulfate, if available, since it will neutralize the effects of long-term contact between **BLAZETAMER380™** and asphalt. After absorption occurs the saturated material can be spread evenly over a natural surface, then watered in thoroughly. Clean up procedures are the same as above.

**FERROUS IRON SULFATE** is an organic salt with several commercial uses, the most common as a soil fertilizer for alkaline soils. It is harmful if swallowed and causes eye and skin irritation. Follow label directions.

**NOTE:** Ferrous iron sulfate may stain concrete, masonry and painted surfaces. Be careful not to allow contact with these materials.

## CONCENTRATE MAINTENANCE

**BLAZETAMER380™** as well as other fire suppressants, require periodic maintenance to ensure they will perform effectively, such as long-term retardants that require weekly recirculation and fire extinguishers that require annual maintenance and inspection. **BLAZETAMER380™** must be thoroughly mixed / blended at least once annually, prior to the fire season. It is also recommended that concentrate is collected and mixed at the end of fire season and mixed/blended before being put into long-term storage. G5 BioSolutions, LLC will work with agencies to ensure annual mixing is completed.

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2017												
2018												
2019												
2020												
2021												

*Placards are available for totes to document mixing*

### **LONG-TERM STORAGE**

Concentrate containers must be stored in a cool, dry, well-ventilated area so they are protected from weather, direct sunlight and punctures. Securely fastened tarps may provide adequate protection. Caps must be sealed tightly to prevent moisture from entering the containers.

### **SHORT-TERM STORAGE**

Concentrate containers must be stored so moisture is not introduced to the concentrate. If containers become contaminated with water or other materials the concentrate will become unusable.

***Follow directions to ensure safe and effective results. Consult SDS for more information.***

[www.blazetamer.com](http://www.blazetamer.com)

**BLAZETAMER380™ INJECTION SYSTEMS  
FOR GROUND-BASED OPERATIONS**

**FF-15 – SEAT Operations**



**FF-PIU – Portable Injection Unit**



**FF-35 – Large AirTankers, including VLAT**



*Control Panel has  
mixing ratio/LED  
light system for  
various Multi-  
Engine AirTankers*

**BLAZETAMER380™ INJECTION SYSTEMS  
FOR IN-FLIGHT OPERATIONS**

***PAYS DELIVERY SYSTEM – FIREBOSS***



***HELICOPTER BUCKET OPERATIONS***



***HELICOPTER FIXED TANK OPERATIONS***

