

PURPOSE

To provide a standard process in which to handle single engine response to fuel spills.

POLICY

SPILLS

- Flammable liquid spills include spills without fire and any remaining fuel after a fire has been extinguished. In both cases, the liquid must be protected to prevent ignition. For our purposes spills will be divided into two categories.
 - Small--- less than 10 gallons (this can be handled with one engine).
 - Large---more than 10 gallons (requires a hazmat response).

In order to manage small spills, each engine will be equipped with a PW can containing a mixture of Micro-Blaze and water (there is a 12 month shelf life of mixed Micro-Blaze). Micro-Blaze is an enzyme that breaks down hydrocarbons into biodegradable elements and reduces or eliminates flammable vapors. After proper mixing/agitation between the spill and the Micro-Blaze mixture no further action is required. The key to a successful operation is to aggressively and thoroughly mix the products together.

Micro-Blaze Emergency Liquid Spill Control can be used for petroleum products such as gasoline, diesel, fuel oil and other hydrocarbons, as well as industrial solvents such as, acetone or ethylene glycol (antifreeze). It is excellent for remediating benzene spills.

Mixing Procedures for PW can:

- One filled extinguisher with proper air charging will cover approximately 100 square feet (10'X10' area).
 - Completely discharge extinguisher.
 - Unscrew and remove nozzle assembly.
 - Fill with two (2) gallons of clear water. Add one pint (480 cc's) of Micro-Blaze® Emergency Liquid Spill Control slowly. (Always *add water first* to lessen foaming.) This creates a 6% mixture that works best for lighter end and volatile hydrocarbons, such as gasoline.
 - Reconnect nozzle assembly.
 - Charge with air to green mark on pressure valve.
 - Mark PW can with date it was filled (shelf life is 12 months).
 - Ready to use. Repeat Steps 1 – 7 as necessary for refilling and recharging the extinguisher.

Application Procedures:

- Do not permit the flammable liquid to run-off into storm drains, sewers, or drainage systems. Dam the run-off and cover drains and sewers pending disposal. Consider the use of plastic dike, charged hose lines, black plastic, or dirt to prevent the further spread of spilled material if it can be done safely.
- Control ignition sources in the area of the spill. Extinguish pilot lights, flares, open flames, etc. Prohibit smoking. Position vehicles to prevent contact of vapors with running

engines or exhaust. Disconnect electrical power from a remote location to prevent arc-caused ignition.

- Limit access into the area with Fireline tape.
- Apply Micro-Blaze aggressively to the fuel starting at the edges of the spill working into the middle; the use of a broom may also be used to thoroughly mix the two products.
- After the application of Micro-Blaze the surface will be slippery until the area is washed down with a red-line.

All personnel working around spills must wear full protective clothing to afford protection in case of possible ignition. SCBA must be used in vapor areas.

The Micro-Blaze emulsifies the hydrocarbons making them biodegradable. The spill can then be turned over to the RP of the property.

FS193 will have Micro-Blaze stored at the station to refill any used product. The PW can with Micro Blaze can still be used for all Class A fires.

Dilution rates:

- Usually, heavier weight oils like motor oils and hydraulic fluids use a 3% solution of Micro-Blaze® Emergency Liquid Spill Control mixed with water.
 - *Hint:* for every 10 gallons of concentrate, dilute to a 3% solution with 333 gallons of water (10 gallons / 3% = 333 gallons water).
 - *More is not better* – 3% allows the water to help cut up the hydrocarbon molecules.

The LELs of lighter weight and volatile fluids can be knocked down with an application of Micro-Blaze® Emergency Liquid Spill Control in a 6% solution. (Dilute every 10 gallons of concentrate with 167 gallons of water.)

Approved: _____



Thomas Solberg, Fire Chief

6/25/2010

Date