



## PHOS-CHEK® Flash 21 Fuel Gelling Agent



### Description

Ground and Heli-torches require gelled fuel. Flash 21 is a two-part liquid fuel gelling agent that reliably provides high quality gel, fast. Fuel thickened with Flash 21 achieves ideal viscosity with no settling. Flash 21 can be mixed with various fuels including straight gasoline, diesel, Jet A or Jet B if available. Using Jet A alone will produce a good gel but because of the low flash point of this type of fuel, you may need to add 20-30% straight gas to produce a better ignition point.

Flash 21 was developed to allow mixing with fuel regardless of temperature, ensuring a consistent gelled fuel mixture. Fuel treated with Flash 21 will not lose viscosity, allowing use during an entire burning operation. For additional information on safety and handling, please refer to the product labels and Material Safety Data Sheets which are available for both products. Studies have shown Flash 21 to be both stable and effective.

Flash 21 is designed to be added to fuel as two parts, A and B, one liter of each. One box of Flash 21 has 12 liters of product, six of Flash 21 A and six of Flash 21 B. One liter of A and one liter of B will gel 55 U.S. gallons of fuel. Freezing does not adversely affect either part A or B; once the product thaws it can effectively be used. Under cold weather conditions it is recommended that a 10-25% blend of regular gasoline is used when mixing Jet A, Jet B or diesel fuel. High temperature has no impact on any of the standard fuels.

Flash 21 is distributed in the U.S. by Type One Incident Support Inc, by PC Australasia Ltd in Australia and by ICL Performance Products Canada in Canada. To place an order with Type One in the US, please call (541) 330-4340.



### Advantages of Flash 21

- Ease of mixing and superior long-term viscosity stability makes Flash 21 the preferred gelling agent in today's market.
- No noticeable effects from either cold or warm temperatures provide burn specialists a maximum window of operations.
- Flash 21 provides the user with a high consistent fuel gel mixture; it eliminates the problems of product lumping and viscosity loss commonly experienced with other available products. Flash 21 is effective with fuels containing ethanol. (See reverse.)

### Packaging

Flash 21A and Flash 21B are packaged in one liter (33.8 fl. oz.) plastic bottles. There are 6 bottles of each component in a case. Each case weights 15.66 kg. (34.45 lbs.)



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### Mixing Instructions Using Ethanol Fuels

When using Flash 21 in conjunction with ethanol blended fuels, it is essential that the user be aware that ethanol will inhibit the gelling process. This can be overcome by following the simple steps outlined below:

1. Determine the amount of ethanol blended fuel (EBF) present in the volume of fuel to be gelled, i.e. A normal 200 liter drum of fuel containing a blend of 50% diesel mixed with 50% EBF would contain 100 liters of ethanol blended fuel.
2. Take a volume of water equal to 5% of the volume of EBF present in the mix (5% of 100 liters = 5 liters of water required), and add it to the fuel volume to be gelled.
3. Add the Flash 21A component, and stir for approximately 1 minute. Then add the Flash 21B component, and continue to stir the blend. Gelling should take place in less than 5 minutes.

The ethanol present in ethanol/gasoline blends actually sets up a chemical barrier between the Flash 21 components in the mixture, and the hydrocarbon fuels that it must act upon to create the gelled fuel. The water, when added to the fuel blend, serves to “tie” the ethanol component, which then allows the Flash 21 to access the hydrocarbon molecules, and gelling action can take place.

The “tied” blend of water and ethanol will begin to percolate through the gelled fuel, and will collect at the bottom of the

mixture as a thin, brownish liquid. This process will begin quickly, and should normally be completed in less than 12 hours. If gel from an EBF mixture has been left for any length of time prior to commencing operations, this brownish liquid can be readily mixed back into the gel structure by simply stirring the gel, rolling the barrel if practical, etc. No reports of impaired ignition have been noted, and burning should proceed as normal.

The gel produced using EBF tends to be thinner than gels produced using non-EBF types. If EBF use is necessary, but a thicker gel is needed, consider the option below:

- **Blending the EBF with a higher carbon fuel, such as diesel.** Gel produced by ethanol blended fuel may exhibit a lower blending in a higher carbon fuel such as diesel to achieve a thicker gel.
- **Equipment Cleanliness.** Prior to use, it is essential to flush the equipment with raw fuel to remove contaminants from all plumbing and surfaces before mixing with Flash 21.

Residual amounts of other gelling agents may negatively affect the ability of Flash 21 to work as intended, even in minute quantities.

For additional troubleshooting help, please see the Flash 21 Troubleshooting Guide at [www.phoschek.com](http://www.phoschek.com).

For more information, contact us:

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