

## Green Fire

### How do you make green fire?

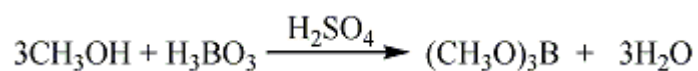
Answer

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Boric acid esterification reaction and flame test.

Pour some isopropanol antifreeze (such as HEET, normally sold with automotive chemicals and is a relatively safe household substance) into a metallic container, add some of boric acid into the liquid and agitate it to mix up. It is not completely soluble. Set the container on a safe surface and ignite it with a lighter, and watch...

This is the reaction behind the process:



Trimethyl borate is highly flammable and can be ignited with a Bunsen burner or lighter.

This green colored flame originates from substances that contain boron atom (**Flame test**):

Excitation of atoms or ions by heat and absorption of energy and transitions between ground and excited states and returning back, emitting light specific for each element.