

# FUEL

## BIOETHANOL



### Bioethanol - The Green Alternative

Bioethanol – or simply ‘ethanol’ is a renewable energy source made by fermenting the sugar and starch components of organic materials – mainly sugarcane, potatoes, and crops. Depending on the agricultural structure of the producing country, it might also be made from corn, rice, banana, grapes or even dates.

Today, bioethanol has many uses: Blended with petrol it makes transport fuel more sustainable, the cosmetics-, medical- and food industries use it in their production processes. By adding a high alcohol percentage and non-consumable additive, the bioethanol can be used in Decoflame’s biofireplaces, creating a beautiful dancing flame with a clean combustion.

### Clean Emission

When burning, bioethanol is dissolved into water and vapour carbon dioxide (CO<sub>2</sub>). Carbon dioxide is absorbed by plants. It is then processed via photosynthesis to help the plant grow. This infinite cycle of creation and combustion of energy – in a way a recycling of energy – makes bioethanol an almost carbon-neutral fuel.

### Ethanol Vs. Denatured Ethanol

In line with various global regulations bioethanol of 100% purity cannot be sold in order to avoid human consumption. Ethanol is therefore denatured with varying substances for retail purposes. It might be traded under names like Denatured Ethanol, Methylated Spirits, Denatured Alcohol, and others.

### Storage And Handling

Bioethanol is classified as a UN1170 Flammable Liquid Class 1B (for Flammability) and Class 3 PGII (for Transportation) and is regulated by various standards around the world.

Before operating a Decoflame bioethanol fire, please familiarise yourself and comply with these, national and local regulations in order to safely and legally store, handle, decant and use this fuel.

### Bioethanol and Decoflame Bioethanol fireplaces

All Decoflame bioethanol fireplaces can be operated only with bioethanol of at least 96.5% alcohol but max. 97.5% purity. We recommend using Decoflame bioethanol, which has an alcohol percentage of of 96.5% to 97.5% and without acetone.

