

# The best HHO Electrolyte (catalyst) for HHO Gas Generator?

Use an electrolyte that suits the best to you HHO Gas generator design. The distance between the electrode plates does really matter.

1. For electrodes with little distance between the plates you could use: tap water or distilled- rain- or demi water with a very little of any of the catalysts mentioned below.
2. For electrodes with more space between the plates tap water won't work. So use distilled- rain- or demi water with a little of the catalysts mentioned below.
3. For electrodes with a lot of space between the plates tap water won't work. Use distilled- rain- or demi water with a one of the catalysts mentioned below.

## 1. Tap Water - H<sub>2</sub>O (containing minerals, salts etc.)

Advantages:

- Available everywhere
- Cheap
- Safe

Disadvantages:

- Water might turn brown with smudge on the electrodes
- Water that contains chlorine should not be used

## 2. White Vinegar - acetic acid – H<sub>3</sub>C-COOH

Advantages:

- Stainless electrodes stay clean
- Available everywhere
- Cheap
- Safe

Disadvantages:

- Smells

Available at your local grocery store.

A good mix for medium distance electrodes: 100% vinegar with (only if necessary) some baking soda. (If do so be careful, because the reaction will produce CO<sub>2</sub> and some other gasses!)

## 3. Baking Soda ( Natriumbicarbonate ) NaHCO<sub>3</sub>

Advantages:

- Available everywhere
- Cheap

Disadvantages:

- Electrodes and water might turn brown
- Produces CO<sub>2</sub> (30%) and CO (4%).
- For this reason not recommended

Pure Baking Soda might leave a brown tinted residu.

#### 4. Sodium Hydroxide also called Lye = NaOH

Advantages:

- Electrodes stay clean
- Cheap
- 95 - 100% pure HHO (oxygen hydrogen) Gas production with right generator design
- Available in the Grocery store

Disadvantages:

- Limited dangerous to work with
- Too much heat causes corrosion

Pure sodium hydroxide is a white solid; available in pellets, flakes, granules and as a 50% saturated solution. It is deliquescent and readily absorbs carbon dioxide from the air, so it should be stored in an airtight container. It is very soluble in water with liberation of heat. Use with distilled water.

**Not recommended**

#### 5. KOH (pottassium hydroxide)

Advantages:

- Electrodes stay clean
- 95 - 100% pure HHO gas production along with the right generator design
- strong and pure electrolyte

Disadvantages:

- Not available everywhere
- dangerous to work with

**Recommended as very good electrolyte (recommended by Honda in 2001)**

#### 6. K<sub>2</sub>CO<sub>3</sub> (Pottassium Carbonate)

Advantages:

- Maximum HHO gas production
- Very pure HHO gas production along with the right generator design
- Efficient
- Safe to work with

Disadvantages:

- It is possible (sometimes necessary) to mix it with a little Naoh to draw more amps.