

CLEAN

Cleaning with Sanera ECA Sodium Hydroxide

What is ECA

Sodium Hydroxide (NaOH) produced using the electrochemical reaction between salt, water and electricity is an ECA solution.

Sodium Hydroxide (NaOH)

Sodium Hydroxide is a compound used in many industrial applications to effectively dissolve grease, fats and other organic deposits.

Deep Cleaning can be difficult

Whether it is cleaning or disinfecting the challenge is always to get it done correctly, safely and to not disrupt the operation of the business nor destroy the infrastructure.

Deep Cleaning on a frequent basis can be disruptive and using high doses of chemicals to avoid frequent cleaning can pose a safety / health risk to the custodial team as well as the environment.



A Better Way to Clean

When selecting a cleaning agent or chemistry we ideally choose a product and process that will get the job done well, without harming our people, our buildings and our environment. Now if that can be done with a product that satisfies the ideals and costs less than the “we have always done it this way” method we would truly have a premium solution. Remove the dirt, grime and do it safely and at lower cost. Perfect, how do we do that?

Sodium Hydroxide - Sanera C-12 Catholyte

Sodium Hydroxide (NaOH) is a chemical compound that is widely used in industry and as a cleaning product because of its

 <p>REPLACE Harsh Chemicals</p>	 <p>PROFITS Increased</p>
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Radical Waters

Radical Waters, LLC is a world leader in Electrochemically Activated (ECA) technology. With multiple patents for cleaning chemistry and processes Radical Waters has the science backing and experience to produce the chemistry for your application.

The Radical Waters family of generators can produce product in quantities and concentrations for everyone from a small manufacturer to a municipal water supply.

- ECA generators produce two beneficial chemical compounds, separately or as a dual function generator.
 - Catholyte (NaOH)
 - Anolyte (HOCL or Hypochlorous Acid)

Water, salt* and electricity pass through a specially designed cell where the hydrogen and oxygen in the water react with the chlorine of the salt to produce the two compounds. Chemistry ideal for cleaning and disinfecting.

* - In the case of Catholyte only generators we use sodium bicarbonate.

effectiveness at breaking down grease, fat and other organic compounds. NaOH is water soluble making it easier to transport as a concentrate for industrial uses and then have it diluted on site, as needed. NaOH is common in many general purpose cleaners found everywhere from industry, commercial and even residential applications. These applications can include more specialized, unique cleaning needs but you will see NaOH used for cleaning the basics as well - bathrooms, kitchens, carpets and even windows.

You might know Sodium Hydroxide as caustic soda or lye. It is an alkali salt and can be very corrosive on animal and plant tissue. It can be toxic.

Scary stuff when used incorrectly or in high concentrations.

The key is to use a lower concentration and use it correctly. More to the point all NAOH is not created equally. The Sanera C-12 Catholyte is designed to work extremely well but at a lower risk than is associated with other Sodium Hydroxide products. Sanera Canada uses the technology of Radical Waters, LLC, a world renowned producer of ECA water generators.



What is special about Sanera C-12 Catholyte?

A number of points come to mind in response to this question.

1. Sanera C-12 Catholyte is an effective cleaner at lower concentrations than traditional NaOH.
2. We can produce the NaOH on site, eliminating all transportation costs.
3. When produced on site we produce it on demand further reducing storage and inventory costs.
4. Sanera C-12 Catholyte can be disposed of directly to the drain with no environmental impact and reducing disposal.
5. Multiple uses for Sanera C-12 include cleaning of almost any surface - tile, concrete, glass, stainless steel, carpets and linens. This will help reduce the number of chemistries used and because there is not a middle man the bottom line is, you save money, increasing profits.

Sanera C-12 Catholyte is produced at a concentration of 800 - 1000 parts per million, compared to other producers where their caustic solutions have as much as 4,000 parts per million of NaOH. Despite the lower concentration Sanera C-12 Catholyte is as effective as these other "cleaner" and it is much safer to use, better for the environment and it costs much less to produce.

Catholyte, is the generic term for the ECA solution produced from the cathode chamber in the ECA cell. Catholyte is a negatively (-) charged, anti-oxidant with the primary ingredient being Sodium Hydroxide (NaOH) at a concentration of 800- 1000ppm. Specialized Catholyte generators are available upon special request, with concentrations up to 3000 ppm of NaOH.

Catholyte is an alkaline detergent solution with a pH of >12.5 and a negative Oxidation Reduction Potential (ORP) of <-800mV when freshly produced. Catholyte reduces the surface tension of water and can be used as a mild surfactant..

The Catholyte solution consists of smaller water clusters that penetrate grease and grime easily, increasing its cleaning effect, making Catholyte ideal for cleaning applications to remove biofilm and food residues from processing equipment.

The Radical Waters dedicated Catholyte only ECA Generators produce Catholyte exclusively from Sodium bicarbonate (NaHCO₃). By doing so, Radical Waters avoid the production of acid water waste associated with the production of Catholyte from salt (NaCl). In addition, our specialized process developed with our OEM partner ensure that less NaHCO₃ is required to produce a similar concentration of NaOH than when using NaCl and it does so with a higher pH, this ensures no cost penalty when using NaHCO₃ instead of NaCl. This technology is exclusive to our dedicated Catholyte only Generators but can also be applied to our dual stream ECA Generators upon request.

The Green Clean Safe Detergent

CATHOLYTE PRODUCTION

Radical Waters ECA Generators Produce Green Clean Catholyte in two ways:

1. **As a primary product from the dual stream NOW ECA Generators when configured to use sodium Bicarbonate for Catholyte production.** The Catholyte production from the dual stream NOW Compact/Impact devices are equal to the Anolyte production and comes in configurations of either 20, 40, 100, 200 and 300 litres per hour of both Anolyte and Catholyte production. The concentration of Sodium Hydroxide (NaOH) from these generators are normally set to ~800 ppm, but the NaOH concentration can be increased to ~1600 ppm should the customer so require. These units were specifically designed for use in the beverage industry. Special dual stream ECA generators are available that can produce Anolyte with an FAC of 3000 ppm and Catholyte with an NaOH concentration of 3000 ppm. These are specifically designed for CIP applications in the Food industry where higher concentrations are required to deal with fats and proteins.
2. **A dedicated Compact/Impact Catholyte Generator (CG).** The Catholyte production from the NOW Compact/Impact CG Catholyte only Generators range from 20 litres an hour up to 4000 litres an hour of dedicated, Catholyte-only production. Catholyte only generators are available with Sodium Hydroxide (NaOH) concentrations from 1000 ppm to 3000 ppm and pH > 12.5.



**Sanera C-12 Catholyte can benefit you.
Contact us today to see how.**

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