

# Sodium Hydroxide VS. Potassium Hydroxide

*What is the difference?*

By Linda Chambers, Brand & Sales Manager,  
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For the kitchen exhaust cleaning contractor, almost any cleaner you would want to use on the market today will be based on one or the other of these chemicals, or be a combination of the two.

You need to understand their differences,

pros and cons, to be able to best choose a product to fit your needs.

**Sodium Hydroxide (NaOH)** and **Potassium Hydroxide (KOH)** are almost interchangeable. They are the most chemically similar of the hydroxides. They are both a white, strong alkaline, corrosive solid or powder. Sodium Hydroxide is more commonly known as lye or caustic soda where Potassium Hydroxide is known as potash.

Both are used to change fats into soap in a process called saponification. Even though their solubility in room temperature water is about the same, products made with potassium hydroxide exhibit a greater solubility, especially as you increase the temperature of the water. Like all strong bases, the reaction of both Potassium Hydroxide and Sodium Hydroxide with water is strongly exothermic; in other words, they generate heat and give off hydrogen. But the reaction with Sodium Hydroxide is slightly more exothermic, which can make up for other more positive factors that Potassium Hydroxide possesses.

The biggest difference between them is in cost because of certain factors, such as their production process by electrolysis, where potassium chloride costs more than sodium chloride (table salt). In ton quantities, potassium hydroxide is about three times more expensive than sodium hydroxide.<sup>1</sup>

At the molecular level, potassium hydroxide

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is also slightly smaller than sodium hydroxide; therefore, it can penetrate oil molecules faster than sodium hydroxide, thus breaking the oil's hold on surfaces quicker. Since they are also more soluble, the oils can be rinsed away easier, especially when using hotter water or steam equipment.

If you need to clean a metal surface that is coated with a hard baked-on oil or grease, you would prefer to use a potassium hydroxide with a hot water rinse. A coating of thicker or softer oil or grease could be cleaned by using a sodium hydroxide for less of a cost with lower temperature water required because of the better exothermic reaction.

Using a product that contains both chemicals is like getting the best of both. You will be getting a lower priced product with a better exothermic reaction than with Potassium Hydroxide alone, but you will have a faster penetration and better rinsing product than if it just had Sodium Hydroxide.

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<sup>1</sup>[http://www.ehow.com/facts\\_6150994\\_sodium-hydroxide-vs\\_-potassium-hydroxide.html](http://www.ehow.com/facts_6150994_sodium-hydroxide-vs_-potassium-hydroxide.html)

## Former Facilitec Owner Launches New Nationwide KEC Company, Averus

by Allison Hester, Editor



Daryl Mirza

On April 1, well-known kitchen exhaust cleaning veteran Daryl Mirza and his business partner, Joe Harvey – who has worked with Daryl for over 20 years – announced that they will be working under a new business name and model – Averus. “Aver” is Latin for “truth,” while the “us” stands both for the U.S. and for “us” – as in the company – meaning that the staff will work with honesty and integrity.

Mirza started in the kitchen exhaust cleaning industry over 27 years ago after working for a Burger King franchisee, where he first saw the need for cleaning. He responded to a small ad in *Entrepreneur* magazine for a kitchen exhaust certification company called Black Magic, and Ducts Unlimited was born.

Over the years, Mirza grew his businesses through a number of acquisitions, the largest of which took place eight years ago when he purchased a national company called Facilitec. “It was a monster,” he admits looking back. “The Facilitec part was pretty challenging.”

At the time, Mirza had four vice presidents working with him, to whom he eventually sold regional portions of the Facilitec business, including the trucks, contracts and personnel. (He also invited

Michael Hinderliter, owner of PowerWash.com, into the investment.) The deal also included a non-compete clause, which recently expired.

Starting last year, Mirza and Harvey came up with a plan that would allow the company to be “self performing,” giving them more control for their customers. That plan is now moving into action with the launching of Averus. According to Mirza, Averus will be able to provide national coverage with local and regional pricing.

Averus is also investing in new technology that will allow them to provide customers with “up-to-the-minute data,” including pictures, videos, forms, and digitally captured employee signatures once the cleaning is completed.

They have also invested in over 35 new trucks this year, raising Averus’ modern fleet to over 100 trucks. With over 100 trucks and KEC crews already on the road, Mirza said Averus is able to service any local, regional, or national customer.

Mirza concluded, “We are very excited to introduce these new concepts to the KEC market and once again change the industry for the better.”