

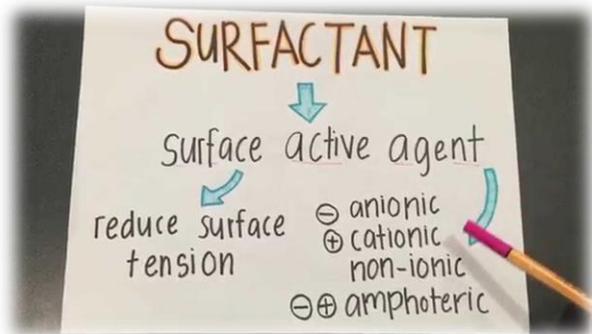
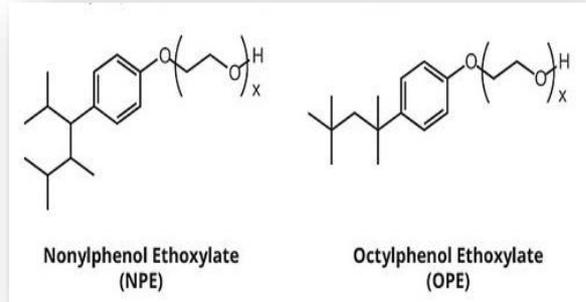
Ecwamix

Chemical Systems
Your Specialist Partner in Sustainable Chemical Solutions

Ethoxylates

Ethoxylates (typically Non-Ionic Surfactants), are the formulators friend when putting together cleaning products, as they perform a multitude of different, small tasks throughout the cleaning cycle.

The secret is in the amount used, which with a well-built cleaning product is surprisingly low, and whether-or-not it is used alone or in combination with other non-ionic surfactants in the formula. The idea is to use just enough for the highest dilution of the product that one expects a customer to make, without losing efficacy in the aspects most usually considered to be critically performed by the non-ionic surfactant or combination.



Ecwamix have found that through careful selection of surfactants/co-surfactants, one can lower the total non-ionic surfactant content in a cleaning product by as much as **50 – 70 %**. These can be either blended into the product independently of each other or supplied as a Special Surfactant Blends, like some of the products we already have off the shelf.

The first group of relevant Ethoxylates were what are known as **Alkyl Phenol Ethoxylates**, a group of products that include such well known products as **NP9**. These were the workhorse surfactants in the synthetic soap world for over 100 years. What sent them into an out-of-favour tail-spin was the discovery that a number of their biodegradation semi-metabolites were interfering with the breeding patterns of Fish by causing Males to show Female tendencies (Estrogenic Effect), in that they stopped usual spawning patterns and egg-fertilization.

~~NONYLPHENOLS~~



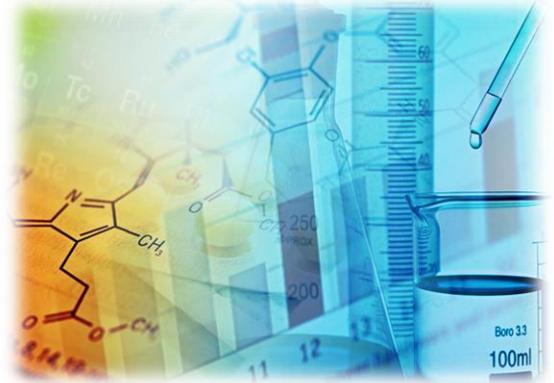
In South Africa, **Ecwamix** pioneered the practise of **Blending Ethoxylates** from different Hydrophobe Families to make single mixed products available to people who have thus far relied specifically on the magic of NP9 and the other APE's. By having done this we save the average (and even highly professional),

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formulator from needing to reinvent their formulae, by simply “**dropping in**” an **Ecwamix** Blend to save the day.

Besides selling individual Fatty Alcohol Ethoxylates and our well known **signature Blends**, we can also make **Specialised Blends** of products for discerning customers and when we find that our drop-ins don’t perform perfectly, we can rework your formulae where needed to tweak them upwards towards better, greener, more cost effective operating.



Please check out our website, www.ecwamix.co.za to get a really good overview of the **Ecwamix** picture and to see how we can partner with you to improve your business.

You be the star. We’ll be happy to support you!

Ecwa - NS 908	NP9 Substitute - Non-ionic Alcohol Ethoxylate Blend (80% Active)
Ecwa - NS 906	NP9 Substitute - Non-ionic Alcohol Ethoxylate Blend (60% Active)
Ecwa - NS 60	NP6 Substitute - Non-ionic Alcohol Ethoxylate Blend
Ecwa - NS 40	NP4 Substitute - Non-ionic Alcohol Ethoxylate Blend
EcwaSURF 226	Optimized Non-ionic Alcohol Ethoxylate Blend
EcwaSURF 91 - 2.5	C9 - C11 Non-ionic Alcohol Ethoxylate: 2.5 EO (mol)
EcwaSURF 91 - 4	C9 - C11 Non-ionic Alcohol Ethoxylate: 4 EO (mol)
EcwaSURF 91 - 6	C9 - C11 Non-ionic Alcohol Ethoxylate: 6 EO (mol)
EcwaSURF 91 - 8	C9 - C11 Non-ionic Alcohol Ethoxylate: 8 EO (mol)
EcwaSURF LA 9	C12 - C14 Lauryl Alcohol Ethoxylate: 9 EO (mol)
EcwaSURF ON 60	C10 Iso-Decyl Alcohol Ethoxylate: 6 EO (mol)
EcwaSURF TO 5	C13 Iso-Tridecyl Alcohol Ethoxylate: 5 EO (mol)
EcwaSURF TO 8	C13 Iso-Tridecyl Alcohol Ethoxylate: 8 EO (mol)