

South Africa's **used oil re-refining challenges**



The used oil industry in South Africa is thriving – out of 243 million litres of new oil sold per annum, 120 million litres is collected for recycling. However, currently only 10 percent of the used oil collected is re-refined back into base oil, with most being partially processed for fuel oil, to be used in furnaces, kilns and burners. The lubricants industry's recycling organisation, the ROSE Foundation (Recycling Oil Saves The Environment) would ideally like to see South Africa follow in the footsteps of the global movement towards re-refining most used oil collected back to base oil.

ROSE CEO Bubele Nyiba explains: 'Re-refining means less utilisation of natural resources; emissions of carcinogenic compounds through re-refining are 15 times lower; there is a very low production of pollutants; CO2 emissions from re-refining are two times lower; and re-refining offers an effective conservation of synthetic base oil compounds.'

'We have world class re-refining plants already operating in South Africa, but even they have to import used oil from neighbouring countries to sustain a steady supply to their plants. Europe has a very high

level of environmental awareness – they label their re-refined base oil with environmental endorsements. Our market is primarily driven on price and re-refined oil needs to compete on price with virgin oil.'

Nyiba explains that the European Union's Waste Directive strongly favours re-refining over burning for energy recovery. As a result, it is thought re-refined base oils could meet nearly a quarter of Europe's base oil demand by 2020. 'The international trend of refining the majority of used oil back to base oil is exciting, but unfortunately it is premature for a developing country like South Africa because

of the prohibitive cost of the technology and developing the necessary processes.'

'While South Africa may not yet be able to adopt a European approach to used oil, a future imagined sees a focus on a closed loop and circular economy, which will see all used oil, emulsions and used ethylene glycol being collected for processing back into base oils, flux oils and fuel oils, which will be mixed, blended and filled into finished lubricant products for various uses,' concludes Nyiba. ⚙️

The ROSE Foundation
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