

# What Happens to Used Lubricating Oil in South Africa?

Global warming and environmental pollution has intensified the need to recycle our limited natural resources and to extend the lifespan of the manufactured products we use. The lubricants industry is no exception.

Internationally there is a significant trend in the larger refineries towards re-refining used oil back to base oil. The European Union's Waste Directive, for instance, strongly favours re-refining over burning for energy recovery, and as a result, it is thought that re-refined base oils could meet nearly a quarter of Europe's base oil demand by 2020.

According to Bubele Nyiba, the CEO of the ROSE Foundation (Recycling Oil Saves The Environment), in SA less than 20% of used oil is re-refined to base oil, with most majority being used as heating fuel.

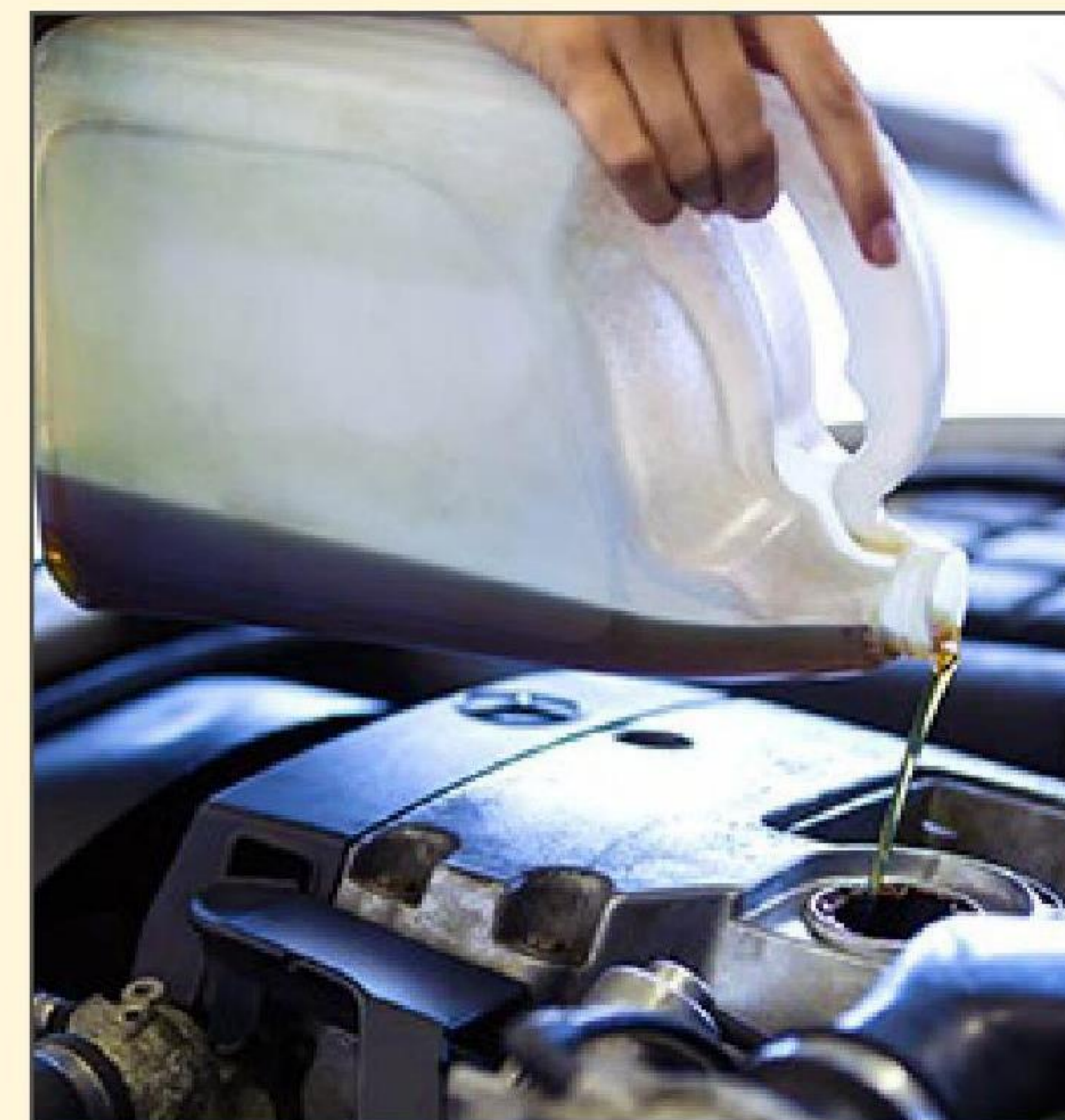
"The international trend of refining the majority of used oil back to base oil is exciting, but premature for a developing country like South Africa because of the prohibitive cost of the technology and developing the necessary processes," said Nyiba.

There is a major difference between recycling and re-refining.

"Recycling used oil generally means to take used motor oil and use it for a different purpose, most commonly to be burnt as fuel. In the lubrication oil industry, recycling oil or reconditioning oil most commonly refers to using commercial filtration systems to remove insoluble impurities. This method, however, does not remove any of the soluble contaminants and the resulting product is only good for one-time use. Reconditioned oil is not suitable for use in vehicles," Nyiba explained.

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"Re-refining of used oil, on the other hand, removes all impurities, both soluble and insoluble, and returns the oil to a quality suitable for use in vehicles. Re-refined oil has quality that is equal to or better than some virgin base oils and motor oils can be re-refined many times.



"Very few processors in South Africa have the capacity to re-refine back to base oil – FFS is the exception and has invested in equipment that enables them to produce a very high quality Group 1 SN 150 Base Oil (re-refined oil) that meets and exceeds international standards for this type of product," said Nyiba.

"Although local demand outstrips supply for burner fuel, this is still an issue in terms of air emissions as heavy and light furnace oils still contain impurities—the used oil industry ultimately needs to move towards re-refining back to cleaner fuels. The challenge is to make re-refining a sustainable option for processors," he concluded. ■