

Diesel users suffer more lung cancer; a simple solution is to hand

Those who work with and at close proximity to diesel engines, especially truckers, are at a higher risk of cancer according to a recent US study ⁽¹⁾. This is on top of the elevated risk of “heart disease and stroke, possibly resulting from enhanced coagulation and arterial thrombosis” such exposure gives⁽²⁾. The good news is that a British company has developed a fuel technology that is seen to reduce ultra fine particulate emissions by as much as 45% ⁽³⁾. Additone from ChemEcol is now available to all fleet operators in the UK.

Truckers endure such grave risks as lung cancers, heart disease and stroke every time they start their engines. But its not just the lorry drivers who are at risk. The American study also saw that those working with the trucks (fork truck drivers, warehousemen, mechanics, and even office clerks) are at elevated risk from these killers. Why?

Diesel exhaust carries particulate matter; this is what colours it a smoky black. Particulates are both created by and carriers of toxic substances called polycyclic aromatic hydrocarbons (PAHs). Many of these are known to be particularly carcinogenic, mutagenic. Some of these particles are small enough (100nm or less) to be classified as nanoparticles. These have been found to become distributed around the body via the blood supply once inhaled with notable deposits being found in the liver and heart. If ingested (settled on food or in drink) they will also pass into the gastrointestinal tract ⁽⁴⁾.

Its not just haulage workers who are at risk. Black carbon (again, part of the exhaust) exposure in city children has been shown to reduce development in terms of intelligence ⁽⁵⁾. The particulate matter we have been looking at is known also to exacerbate respiratory complaints such as asthma and allergies such as asthma and might agitate skin complaints also. Some studies have found that certain particulate constituents can be carcinogenic on the skin as well as when inhaled ⁽⁶⁾.

ChemEcol (UK) Ltd. makes the combustion enhancer Additone. The technology has been developed as a response to the grave threats posed by vehicle exhaust pollution. ChemEcol's products are not based on metal catalysts, nano-technology or otherwise, as that would contradict the goal of reducing particulate pollutant emissions. The technology is based on pure hydrocarbon formulations and maintains the physical properties of the diesel.

The technology modifies the combustion of the fuel inside the engine, reducing the particulates produced. This has a beneficial side-effect of reducing fuel consumption as the PAHs can be considered wasted fuel. This reduces also CO₂ emissions and costs by an average of 3%.

ChemEcol (UK) Ltd can be reached on +44 (0) 1707 330400, at www.chemecol.net and info@chemecol.net.

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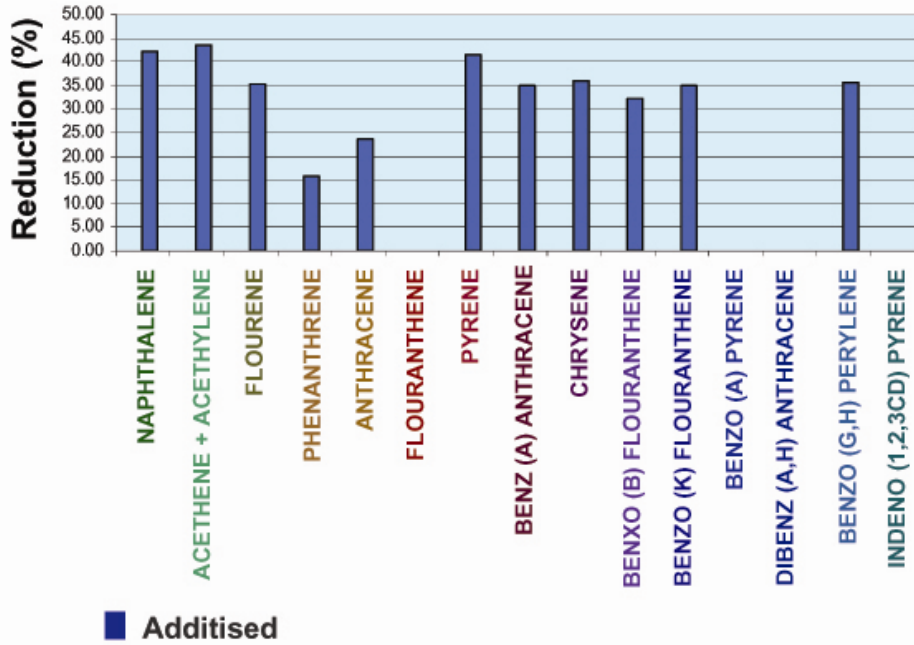
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Contacts

Contact Neil Faulkner on +44 (0) 1707 330400.

Neil can alternatively be reached on 07922 655156 and at neil@chemecol.net.

Percentage change in PAH with treated Fuel compared to Base



Poly Aromatic Hydrocarbon

US EPA:

Air Toxic Regulations has identified compounds produced from diesel vehicles that are particularly carcinogenic or mutagenic.

Effect on Ultra-fine Particles

