



# Fuel and Lubricant Additives

It's all about **the chemistry™**





## Creating value for customer and consumer

At SONGWON, we are passionate about people. Our committed teams work together with customers to drive new opportunities and set new trends that add value throughout the chain, from manufacturer to end user.

Our clients benefit from a global framework combined with readily accessible local organizations, including customer service offices and technical support centers in numerous different countries. Wherever they are in the world, our customers can reach us easily and count on our availability at all times.



## Providing the right solution at the right time

Long-standing expertise and ongoing research in additives for plastics, lubricants and fuels, coatings, electronics and more enable us to help our customers develop tailor-made solutions that meet their individual requirements and those of the end user.

## Combining innovation and sustainability

Responsibility towards people and the environment is a hallmark of SONGWON. Optimizing the sustainability and environmental acceptability of products and procedures is a priority in everything we do.



# Fuel and Lubricant Additives

Antioxidants protect lubricants and greases at high temperatures and extend engine oil drain intervals

Additives are essential for lubrication and prolonged use of oil in engines and gearboxes. Without them, the oil would become contaminated, break down, leak out, or fail to protect engine parts.

## Lubricant Additives

Lubricants are manufactured by refining and processing different crude oils or producing synthetic oils. These base stock oils are formulated with additives and used in the automobile, marine, aviation, railway and other industries.

Lubricants reduce friction in moving parts of machines and increase their durability and life span.

Aminic and phenolic antioxidants retard oxidation in the oil by reacting with radicals produced in the lubricant; in engine oils this helps to extend the drain interval. By maintaining the integrity of the oil for longer periods they help maintain viscosity, reduce deposit and foam formation, guard against the production of corrosion species, whilst protecting the oil at higher temperatures.

## Fuel Additives

Biofuels, which are plant based, are renewable resources that produce less nitrogen oxide, sulfur oxide and carbon dioxide than conventional fuels. As ever greater emphasis is placed on reducing reliance on crude oil, the use of ethanol and biodiesel blends is growing. Small amounts of antioxidant are added to biofuel to protect it against degradation.

SONGWON develops, manufactures and supplies antioxidants for fuels and lubricants for a wide range of industries and applications

SONGWON offers an extensive range of aminic and phenolic antioxidants for fuels and lubricants, mainly in liquid form, and works together with customers to develop ongoing solutions.

With economy-of-scale production units in Korea, SONGWON is the largest producer of phenolic antioxidants in Asia, currently the region with the strongest growth in fuel and lubricant additives.

Backward integration of the key raw materials for phenolic antioxidants ensures reliability of supply and adds value in the production chain.





For further information, please go to:

**[www.songwon.com](http://www.songwon.com)**

SONGWON provides customers with warranties and representations as to the chemical or technical specifications, compositions and/or the suitability for use for any particular purpose exclusively in individual written agreements.

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Version 2, March 2017