



SONGNOX® L670

Nonylated diphenylamine  
antioxidant  
for cutting edge  
protection and security

SONGWON is a leading manufacturer of nonylated diphenylamine antioxidant.

We have extended our range of antioxidants. Industry approved, nonylated diphenylamine antioxidant SONGNOX® L670 is now available from our Asian production facility, together with SONGNOX® L135 liquid phenolic antioxidant.

The production of both SONGNOX® L670 and SONGNOX® L135 by the same manufacturer at the same facility provides customers with a new value enhancing solution. Our broad portfolio of fuel and lubes antioxidants enables us to provide solutions for numerous applications.

Thanks to its excellent physical and technical properties, SONGNOX® L670 is widely used in automotive formulations as well as many other lubricant applications.

It's all about **the chemistry™**

 **SONGWON**

# SONGWON has established a range of industry standard aminic, phenolic, phosphite and thioester antioxidants to meet the needs of the lubricant industry.

## Wide range of antioxidants



Production and supply of industry standard automotive aminic, phenolic, phosphite and thioester antioxidants

Customized solutions for numerous applications

World class production facility in Asia

## Comprehensive technical knowhow



Continuous innovation to meet new industry standards and product requirements.

## Proven reliability



More than 50 years' manufacturing experience in South Korea.

Backward integration of key raw materials.

Global sales organization channels in Asia, Europe and North America.

## Strong commitment



Continued investment in production facilities for both the aminic and phenolic product ranges.

Local logistical supply.

## The synergistic effects of SONGNOX® antioxidants boost performance in automotive and industrial applications

SONGNOX® L670 and SONGNOX® L135 are used together in formulations to retard oxidation in engine oils, helping to extend drain intervals, maintain viscosity, reduce deposit and foam formation, safeguard against corrosion, and protect oil at high temperatures.

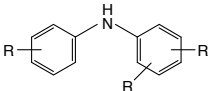
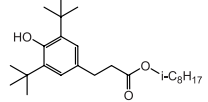
SONGNOX® L670 and SONGNOX® L135 are highly suitable for the stabilization of automotive formulations such as passenger car motor oils (PCMO), heavy duty diesel engine oils (HDDEO), automatic transmission fluids (ATF) and gear oils (GO).

Other applications include compressor, gear, turbine, metal-working oils and greases, for both mineral and synthetic oils.

SONGNOX® L670 meets the European Ecolabel criteria for lubricants and is featured on the Lubricant Substance Classification List (LuSc-list).

# Aminic and Phenolic Antioxidants

SONGNOX® antioxidants suitable for automotive and other lubricant applications

|   |   | Molecular Weight                | Automotive           |                    |     | Industrial       |                 |                | Specialty & fuels   |              |         |                     |                |       |
|---|---|---------------------------------|----------------------|--------------------|-----|------------------|-----------------|----------------|---------------------|--------------|---------|---------------------|----------------|-------|
|   |   |                                 | Gasoline engine oils | Diesel engine oils | ATF | Gear & axel oils | Compressor oils | Hydraulic oils | Metalworking fluids | Turbine oils | Greases | Synthetic base oils | Vegetable oils | Fuels |
| <b>SONGNOX® L670</b><br>Bis(nonylphenyl)amine<br>CAS No: 36878-20-3<br>LQ   |  | nonyl diphenylamine antioxidant | ■                    | ■                  | ■   | ■                | ■               | ■              | ■                   | ■            | ■       | ■                   | ■              | ■     |
| <b>SONGNOX® L135</b><br>Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters<br>CAS NO. 125643-61-0<br>LQ |  | 390                             | ■                    | ■                  | ■   | ■                | ■               | ■              | ■                   | ■            | ■       | ■                   | ■              | ■     |

■ Recommended    ■ Suitable

## Storage conditions



SONGNOX® L670 and SONGNOX® L135 antioxidants are supplied in liquid (LQ) form.

The materials should be stored indoors, in closed containers, in a dry place at temperatures between 5 and 40°C.

## Shelf life



SONGNOX® products are stable for 24 months, provided they are stored under the conditions described above.





For further information, please go to:

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

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