

# NAUGALUBE® 438

## Octylated Diphenylamine Antioxidant

NAUGALUBE® 438 is a solid antioxidant for use in a broad range of lubricants including turbine oils, gear oils, hydraulic fluids, compressor oils and greases. It provides excellent protection against high temperature oxidation and lubricant degradation in mineral and synthetic based fluids. Typical treat levels may range between 0.05% and 1.0%.

NAUGALUBE® 438 can also be used in combination with other alkylated diphenylamines, phenyl- $\alpha$ -naphthylamine, hindered phenolics and/or secondary peroxide decomposer antioxidants, as well as appropriate metal deactivators, for enhanced performance.

### Applications

● Primary Recommendation

● Alternative Recommendation

Industrial						Marine		Aviation		Automotive				Grease		
Gear Oil	Turbine Oil	Hydraulic Oil	Heat Transfer Oil	Chain Oil	Compressor Oil	Trunk Piston Engine Oil	System Oil	Turbine Oil	Hydraulic Oil	Gasoline Engine Oil	Diesel Engine Oil	Auto Transmission Fluid (ATF)	Differential Fluid	Automotive Grease	Industrial Grease	Aviation Grease
●	●	●		●	●		●	●		●	●	●	●	●	●	●



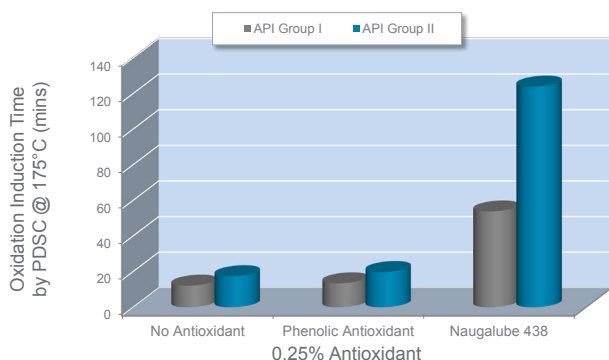
## Features

Ashless antioxidant  
 High molecular weight antioxidant  
 Excellent high temperature performance providing effective control against viscosity increase  
 High purity with low sludging characteristics

## Benefits

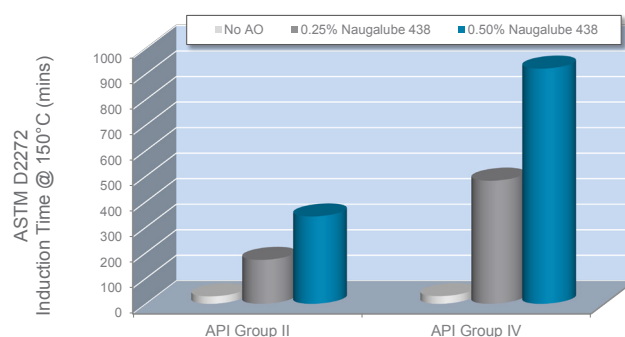
Compatibility with exhausts after treatment systems  
 Low antioxidant volatility yielding prolonged presence in finished formulations  
 Reduced oil oxidation and prolonged lubricant life  
 Decreased wear, plugging and mechanical seal damage

**Oxidation Stability by PDSC – SAE 10W-30 PCMO**



PDSC (Pressure Differential Scanning Calorimeter) testing highlighting the relative antioxidant performance of NAUGALUBE® 438 against phenolic antioxidant chemistry in fully formulated Passenger Car Motor Oil based on Group I and II base stocks. The results reveal a clear and significant boost in antioxidant properties by using NAUGALUBE® 438.

**Oxidation Stability Test by RPVOT – Turbine Oil**



RPVOT (Rotating Pressure Vessel Oxidation Test) performance testing showing the antioxidant performance of NAUGALUBE® 438 in Group I and II based turbine oil formulations at varying treat rates. These are referenced against formulations containing no antioxidant.

**Shipping Information:** 20kg bags

## CONTACT INFORMATION

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Please visit our website

[www.chemtura.com](http://www.chemtura.com) for

more information on this

product and to locate

the Product Data Sheet

(PDS) and Safety Data

Sheet (SDS).



### Storage and Handling

Please read the Safety Data Sheet (SDS) and container label before using any product. The SDS contains important information regarding the safety, handling and storage of this product. The information contained herein is correct to the best of our knowledge. Your attention is directed to the pertinent Safety Data Sheets for the products mentioned herein. All sales are subject to Chemtura's standard terms and conditions of sale, copies of which are available upon request and which are part of Chemtura's invoices and/or order acknowledgments. Except as expressly provided in Chemtura's standard terms and conditions of sale, no warranty, express or implied, including warranty of merchantability or fitness for a particular purpose, is made with respect to the products described herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent.

### Responsible Care®

Chemtura is dedicated to Responsible Care, the chemical industry's initiative to protect the environment; ensure the safety and security of our operations; and safeguard the health and safety of our employees and neighboring communities. Our goal is to make continuous progress towards the vision of no accidents, injuries or harm to the environment. We care about the future - for all of us. If you have any questions, or would like to comment on our Responsible Care Program, please send an email to RCMS@Chemtura.com

