



Mobil DTE™ Oil Named Series

Superior performance circulating lubricants

Description of the product

The Mobil DTE™ Oil Named Series is a line of premium performance lubricants for circulation systems designed for applications including steam and hydro turbines and other systems that require lubricants with a long service life. This series of lubricants is formulated from highly refined base materials and a system of additives that provide an extremely high level of chemical and thermal stability, as well as rapid and complete separation of water while effectively resisting the formation of emulsions. The oils offer excellent protection against rust and corrosion, including resistance to salt water, and provide good anti-wear properties. The oils in this range are very viscous, which means the film thickness varies minimally with temperature, keeping power loss during the heating period to a minimum. These grades possess excellent air release properties, allowing separation of the oil introduced into the system; this prevents pump cavitation and consequent erratic operation.

The Mobil DTE Oil Named Series is the range of lubricants of choice for many users because of its reputation for long life, excellent equipment protection properties and outstanding versatility across a wide range of industrial applications. The Mobil DTE Oil Named lubricants are widely used in steam and hydro turbines using splash, bath and ring oil-coating systems and other continuous circulation methods, including pumps, valves and auxiliary equipment. This product series is recommended for continuous service in lubricating rolling and flat bearings and parallel axle gears. It has also been successfully used in rotary air compressors and natural gas reciprocating compressors and vacuum pumps. The range's reputation is based on many decades of successful service and satisfied users.

Properties and benefits

The Mobil DTE Oil Named product range is well known worldwide thanks to its excellent performance and experience in R&D, and the technical support behind the brand. Its extremely versatile performance has made this range of oils the ideal choice for a great many industrial equipment applications worldwide.

The Mobil DTE Oil Named oils enjoy an excellent reputation for lubricating steam and hydro turbine circulation systems, including geared turbines, plus a wide variety of auxiliary equipment. As designs change and become increasingly demanding, our formulation scientists face the challenge of understanding the effect of these changes on the lubricant and of formulating these products so they continue to offer the wide versatility for which they are known.

For the Mobil DTE Named Oils, this process has led to the use of special base materials to provide excellent stability against oxidation with a unique combination of additives to ensure excellence and performance across a wide range of applications. Below are the properties, advantages and potential benefits of these products.

Properties	Advantages and potential benefits
Very high level of chemical and thermal stability and resistance to the formation of sludge and varnish	Long life of the oil in circulation systems and reduced oil change costs
Reduction of unplanned downtimes and maintenance costs	
Excellent water release properties	Improved operational efficiency
Very good wear protection	Longer equipment life, reduced maintenance and downtime
Long-term protection against corrosion and rust	Longer equipment life, reduced maintenance and

	downtime
High resistance to foaming and excellent air release	Avoidance of pump cavitation and noisy and erratic operation
Highly versatile - multiple applications	Rationalization of inventory, reduced inventory costs

Applications

The Mobil DTE Oil Named Series consists of superior performance lubricants for circulation designed for applications where lubricants require a long life. Specific applications include:

- Marine and onshore steam turbines, hydro turbines and some gas turbine circulation systems, including pumps, valves and other auxiliary equipment
- Continuous service in flat and roller bearings and parallel axle gears
- Turbines with splash, bath, ring or other mechanical coating methods
- Moderate-duty hydraulic pumps
- Compressors and vacuum pumps handling air, natural gas and inert gases, and with discharge temperatures not exceeding 150°C

Specifications and approvals

The Mobil DTE Oil Named Series meets and exceeds the requirements of:	Mobil DTE Light	Mobil DTE Medium	Mobil DTE Heavy Medium	Mobil DTE Heavy
DIN 515151:201002	X	X	X	X
DIN 515172:200906	X	X	X	X
DIN 515241:200609	X	X	X	X
JIS K-2213 Tipo 2 con aditivos (1983)	X	X	X	

The Mobil DTE Oil Named Series has the following approvals:	Mobil DTE Light	Mobil DTE Medium	Mobil DTE Heavy Medium	Mobil DTE Heavy
ABB Turbo HZTL 90617			X	
ABB Turbo HZTL 90572			X	

The Mobil DTE Oil series is recommended by ExxonMobil for use in applications:	Mobil DTE Light	Mobil DTE Medium	Mobil DTE Heavy Medium	Mobil DTE Heavy
GE GEK 46506D	X			
GE GEK 27070	X			
GE GEK 28143A	X	X		

Typical Properties

Mobil DTE Oil Named Series	Mobil DTE Light	Mobil DTE Medium	Mobil DTE Heavy Medium	Mobil DTE Heavy
ISO viscosity grade	32	46	68	100
Viscosity, ASTM D 445				

cSt @ 40° C	31	44.5	65.1	95.1
cSt @ 100° C	5.5	6.9	8.7	10.9
Viscosity index ASTM D 2270.	102	98	95	92
Pour point, °C, ASTM D 97	-18	-15	-15	-15
Flash point, °C, ASTM D 92	218	221	223	237
Density @15 ° C kg / l ASTM D 4052	0.85	0.86	0.87	0.88
TOST, ASTM D 943, hours at 2 NN	5000	4500	3500	2800
Rust prevention, ASTM D 665:				
Distilled water	Approval	Approval	Approval	Approval
Seawater	Approval	Approval	Approval	Approval
Water separation capacity, ASTM D 1401, Min. at 3 ml emulsion @ 54 °C	15	15	20	30
Copper strip corrosion, ASTM D 130.3 h @ 121 °C	1B	1B	1B	1B
Foam Test, ASTM D 892, Seq I Tendency / Stability, ml / ml	20/0	50/0	50/0	50/0
Air release, ASTM D 3427, 50 ° C, min.	2	3	4	8

Safety and health

Based on the available information, this product is not expected to cause adverse health effects when used as intended and in compliance with the recommendations provided in the Material Safety Data Sheet (MSDS). The MSDSs are available upon request through your local sales office or on the Internet. This product should not be used for purposes other than those recommended. When disposing of the used product, take the necessary steps to protect the environment.

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Typical properties are those commonly obtained under ordinary production tolerances and do not constitute a specification. It is expected that during ordinary manufacture, and at different blending locations, variations that do not affect product performance may occur. The information contained in this document is subject to change without notice. Not all products may be available locally. For more information, contact your local ExxonMobil office or visit www.exxonmobil.com

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