



### MCL 25, 40, 50, 70, 100

#### PRODUCT DESCRIPTION:

MCL is a range of alkaline marine cylinder lubricants for all low speed marine two stroke diesel engines, including low Sulphur applications, highly rated large bore engines and engines at optimized feed rates.

#### APPLICATION:

MCL is a range of high quality cylinder lubricants for low speed marine diesel crosshead engines running on residual fuel. The total alkaline content of the cylinder lubricant has to match the Sulphur content in the fuel and it might be necessary to adjust feed rate accordingly. MCL 25 is used for slow-speed engines running on ECA fuels below 0.1% Sulphur. MCL 40 & 50 is optimized for low Sulphur fuel with Sulphur content up to <2% wt. MCL 70 & 100 are optimized for fuel with Sulphur content >1.5%.

#### FEATURES & BENEFITS:

- Excellent thermal and oxidation stability and detergency
- Excellent deposit control
- Allows operation at optimized feed rates
- Excellent Anti-wear properties
- Reduced liner and ring wear
- Extended time between overhauls

#### MEETS OR EXCEEDS:

- MAN Diesel & Turbo
- MHI-MME and Wärtsilä
- Mitsubishi Heavy Industries

#### MEETS OEMs:

- MAN
- Wärtsilä
- MHI

#### TYPICAL PROPERTIES:

PARAMETERS	ASTM	UNIT	MCL 25	MCL 40	MCL 50	MCL 70	MCL 100
SAE Grade			50	50	50	50	50
Kinematic Viscosity @ 104°F/40°C	D445	cSt	TBR	TBR	TBR	TBR	TBR
Kinematic Viscosity @ 212°F/100°C	D445	cSt	19	19	19	19	19
Viscosity Index (min)	D2270	-	95	95	95	95	95
Density@ 60°F/15°C	D4052	g/cm <sup>3</sup>	TBR	TBR	TBR	TBR	TBR
Flash Point (min)	D92	°C	220	220	220	220	220
Pour Point (max)	D97	°C	-9	-9	-9	-9	-9
TBN	D2896	mg KOH/g	25	40	50	70	100

**DISCLAIMER:** The test data provided above is not a specification but is indicative and may vary within permissible production tolerances. Lubrex reserves the right to modify this test data. Updated information will supersede previous versions, so please refer to the latest version of this Technical Data Sheet (TDS).

#### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further information on Safety Guidelines please refer to MSDS available on our website [www.lubrex.net](http://www.lubrex.net)

#### HEALTH & SAFETY:

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet [www.lubrex.net](http://www.lubrex.net)

#### PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

#### STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

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