

# UNI LBR 2000.04

Diesel Oil Lubricity Improver

## Technical Information

### Physical Data

|                          |                     |
|--------------------------|---------------------|
| Appearance:              | Yellow Amber Liquid |
| Specific gravity @ 16°C: | 0.9                 |
| Flash point (PMCC):      | >100°C              |
| Active matter %:         | 100%                |

### Description

UNI LBR 2000.04 is a marine fuel lubricity improver blended to restore the natural lubricity of ultra desulfurized oils (sulfur less than 50 ppm). When used regularly, UNI LBR 2000.04 will reduce the wear of fuel pumps and the injection/distribution system occurring when low intrinsic lubricity fuels are adopted.

### Properties

- ▶ Improves fuel lubricity.
- ▶ Reduces wear of distribution systems and fuel pumps.
- ▶ Fully compatible with system and engine components.
- ▶ Fully compatible with marine fuels/diesels and lube oils.
- ▶ Metal-free high molecular organic acid.
- ▶ Reduces rust formation.
- ▶ Safe on rubber, light alloys, and copper.

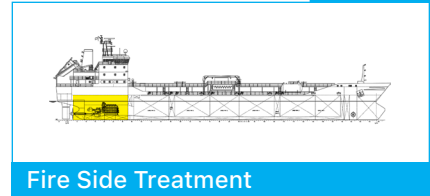
### Applications

UNI LBR 2000.04 can be dosed either "manually" right before bunkering in the main storage tank or during the transfer from the main storage tank to the service tank by means of a dosing pump.

### Dosage

The "perfect" dosage should be calculated based on the result of the HFRR (High-Frequency Reciprocating Rig) test done ashore by a laboratory because there is no direct link between the value of the Sulphur and the lubricity capability of the fuel. Considering the average value of HFRR found in several ULS (Ultra Low Sulphur) fuels analyzed by independent laboratories, the dosage rate may be set between 100 and 600 ppm in the worst cases. If we adopt a dosage of 200 ppm of UNI LBR 2000.04 without knowing the real HFRR value of the bunkered fuel, we will, for sure, limit any possible damage to the distribution system; this dosage expressed in liters is equal to 1 liter for each 5 tons of fuel. In any case, an eventual overdose of UNI LBR 2000.04 will not cause any problems. Since the lubricity of the fuel does not depend only and/or directly on the content of sulfur but is the result of the process of desulfurization of virgin naphtha, there is no fixed calculation for the dosage unless a specific fuel test is performed by a specialized laboratory.

#### USAGE AREAS



#### PACKAGING



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## Health Safety and Environment (HSE)

Uniservice Unisafe Srl have carefully developed their products to minimize the safety risks and environmental impact of using their products. However, Uniservice advises that, prior to using its products, users should read in detail the accompanying Safety Data Sheet and ensure that its products are applied within the required HSE regulations of the country in which the user operates. Best practice and safety requirements should be followed which will likely include method statements and risk assessments, together with any specific requirements of the user's own company HSE requirements.

## Important Notice


While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, this information is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you do a test to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by Uniservice Unisafe Srl hereunder are given gratis, and Uniservice Unisafe Srl assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk. Product images are for reference purposes only.

## Contact

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