



Wirelife® Low Tox® Penetrating Lubricant (2011)

Load-Carrying Oil Is Tough on Rust, Gentle on Environment

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Designed for marine environments and other applications where environmental concerns require the use of a very low toxicity wire rope and chain lubricant, LE's Wirelife® Low Tox® Penetrating Lubricant (2011) has excellent load-carrying capability and provides outstanding protection against rust, while having the lowest possible toxic effect on the environment.



Beneficial Qualities

Environmental Sensitivity

- Is ideal for use in aquatic or other environmentally sensitive areas
- Exhibits up to a tenfold reduction in eco-toxicity while maintaining good lubricant performance
- Has a lower toxic effect on aquatic organisms than conventional competitive products
- Unlike other biodegradable oils that break down quickly but with relatively high toxicity, Wirelife Low Tox Penetrating Lubricant biodegrades slowly but with less toxicity, minimizing environmental impact and posing less danger to aquatic life

Penetrating Ability

- Contains a petroleum solvent to enhance penetration into the core of the rope

High Load-Carrying Capacity

- Excellent for heavily loaded standing or running wire ropes
- Causes less rope fatigue, which leads to extended wire rope life

Rust & Corrosion Protection

- Performs extremely well in marine environments
- Resists rust and corrosion

Easy Application

- Can be dipped, sprayed on with automatic equipment or hand-applied with a brush

Why Low Toxicity?

One question confronting scientists in environmental risk assessment is whether it is better for a material to be quickly biodegraded and possess relatively high toxicity or be low in toxicity and biodegrade at a slightly slower rate.

Lubrication Engineers believes that the latter option provides the best protection for the environment because it minimizes overall impact on the ecosystem.



Wirelife® Low Tox® Penetrating Lubricant

	<u>2011</u>
Color	Amber
Viscosity @ 40°C (104°F) as applied, cSt, ASTM D445	68.30
Flash Point °C (°F) as applied, ASTM D92	140 (284)
Pour Point °C (°F) as applied, ASTM D97	-18 (-0.4)
Viscosity @ 40°C (104°F), cSt, ASTM D445	156.0
Four-Ball EP Weld Point kgf, ASTM D2783	250
Four-Ball Wear @ 75°C (167°F), 1,200 rpm, 40 kgf, 60 minutes, mm wear, ASTM D4172	0.39
Salt Spray hrs, ASTM B117	7+
Microtox® (eco-toxicity) mg/L	EC ₅₀ > 100,000
Rust Test 4 hrs @ 60° (140°F), Sea H₂O, ASTM D665B	Pass

Typical Applications

- For wire rope, cable and chain applications with frequent exposure to the environment, particularly those near water.

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