

TECHNICAL DATA SHEET

HOUGHTO-SAFE® NL1 LV

A SOLUTION FOR DIRECT ACTING TENSIONERS IN VERY COLD CLIMATES

HOUGHTO-SAFE® NL1LV has been designed as a lower viscosity partner to HOUGHTO-SAFE® NL1, for use in cold climates. It has an identical additive package and will operate at similar viscosity in use. It is an ISO 22 viscosity, able to operate in the coldest environments, in direct acting tensioner systems.

It has the same high levels of mixed hydrodynamic and boundary lubrication properties that were validated in long-term cylinder tests with NL1, having superior properties compared to other currently available water-glycol fluids at the same or similar viscosity.

HOUGHTO-SAFE® NL1 LV will have OCNS rating of "D" when testing is complete and it is also registered on the NEMs database for Norway with reduced "red" content, compared to the standard grades.

Applications

HOUGHTO-SAFE® NL1 LV is designed to provide high lubrication, corrosion inhibition and long life, particularly in the demanding conditions where direct acting tensioners are used to provide a constant tension to the riser. It is specifically designed for use in very cold climates where operating temperatures can drop to minus 25°C.

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Please be aware that the pink dye can fade if stored outdoors, in daylight for prolonged periods, this is a cosmetic effect and does not impact on the product's properties.

Benefits

- Passes Def Stan 91-110 Annex D for compression ignition at a 40:1 ratio
- Excellent pH stability for 5 years plus in demanding environments
- Compatible with most commonly used elastomers
- Avoid PU and FKM/FPM
- Cefas D OCNS Rating
- Corrosion resistant in liquid and vapor phase
- Can be used as a preservation fluid for up to 5 years
- Compliant with Global environmental regulations

Properties

| PROPERTY | TYPICAL VALUE | UNIT |
|---------------------|--|------|
| Appearance | Fluorescent Pink Transparent Liquid | |
| Odor | Mild | |
| Specific Gravity | 1.07 | |
| pH | 10 | |
| Kinematic Viscosity | | |
| at 40°C | 20 | cSt |
| at 20°C | 40 | |
| at 0°C | 100 | |
| at -20°C | 350 | |

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