



# LENIUM<sup>®</sup> FHD

## Technical Data Sheet

LENIUM FHD is a high performance solvent cleaner designed to operate in open-top and vacuum vapor degreasers. This proprietary solvent cleaner is a mixture based on hydrofluorocarbons (HFCs).

LENIUM FHD is a heavy duty solvent degreaser, selected to remove difficult soils such as fluorinated fluids, greases, hydraulic oils, metalworking fluids and polishing compounds. It is highly stable, non-flammable and does not contain hazardous air pollutants (HAPs).

LENIUM FHD does not contribute to ozone depletion and its components are approved by the EPA's Significant New Alternatives Policy (SNAP) as an alternative to ozone depleting substances.

LENIUM FHD is a drop-in replacement for trichloroethylene (TCE), HCFC-141b, HCFC-225, perchloroethylene (PCE), methylene chloride (MeCl) and n-propyl bromide (nPB).

LENIUM FHD effectively removes adhesives, buffing compounds, drawing oils, fluxes, pastes, greases, hydraulic oils, lapping compounds, resins, inks and silicone oils.

LENIUM FHD leaves low surface residue and is safe for use with ferrous and non-ferrous alloys such as aluminum, copper and copper alloys, magnesium, nickel, steel, stainless steel, titanium and zinc. It is also compatible with many polymeric substrates and elastomers.

LENIUM FHD is supported by a global network of technical representatives, capable of solving the industries most difficult cleaning applications.

LENIUM is a registered trademark of Petroferm Inc.

### FEATURES & BENEFITS

- Zero Ozone Depleting Potential
- Drop-In Replacement
- Excellent Stability
- SNAP Approved Components
- No HAPs
- Replaces TCE, nPB, etc
- Fast Dry Time
- Non-Flammable
- Good Material Compatibility
- Low Surface Residue/NVR

### PROPERTIES

Appearance.....	Clear liquid
Flash Point.....	None
Boiling Point.....	106°F (41°C)
Specific Gravity (25°C).....	1.33
Viscosity (25°C).....	0.56 cps
Vapor Pressure (20°C).....	496 mm Hg
Vapor Density (20°C).....	3.4
Specific Heat (25°C).....	0.31
Heat of Vaporization.....	48.0 cal/g
Kauri-Butanol (KB) Value.....	60
Flammability Limits (vol %).....	6.5-11.0
Solubility in Water.....	0.4%
Evaporation Rate (Ether=1).....	>1.0

### PROCESS

Add LENIUM FHD at full concentration to the tank reservoir(s). See Vapor Degreasing Operating Manual for more information.

#### Controller Settings

Liquid Temperature Controller/Sensor (LTC).....	116°F (47°C)
High Temperature Controller (HTC).....	121°F (49°C)
Safety Vapor Controller (SVC).....	96°F (36°C)
Vapor Up Temperature (VU).....	96°F (36°C)
Primary Refrigeration Temperature.....	35-40°F (2-5°C)

### SOILS REMOVED

- Adhesives
- Buffing Compounds
- Drawing Oils
- Fluxes & Pastes
- Fluorinated Fluids
- Greases
- Hydraulic Oils
- Lapping Compounds
- Resins & Inks
- Silicone Oils

# LENIUM FHD

## EQUIPMENT

- LENIUM FHD is suitable for use in a variety of commercially available cleaning equipment including open-top and vacuum vapor degreasers.
- Companies requiring new equipment may contact Petroferm for supplier recommendations.

## APPROVALS & TESTING

### Approvals

Conforms to Boeing D6-17487

Conforms to Douglas CSD #1 (*except: Stress Cracking on Acrylics*)

### Testing

ASTM F-483, F-485, F-502, D-519, F-945, F-1110, SAE ARP 1755B

## SHELF LIFE

The shelf life for this product is thirty-six (36) months when it is stored in its original, sealed container at room temperature.

However, the product should be inspected after thirty-six (36) months from the date of manufacture prior to customer use.

Typical property data is not intended for specification purposes. Petroferm, its sales agents and distributors make no warranty of merchantability of the product or of product fitness for any particular purpose. This product and all information supplied are used at the purchaser's own risk. The purchaser assumes all risk of use or handling of the product, whether in accordance with directions or not.

## ENVIRONMENTAL/REGULATORY

Ozone Depletion Potential (ODP).....	Zero
Global Warming Potential (GWP).....	990
Volatile Organic Compound (VOC).....	589 g/l
Significant New Alternatives Program (SNAP).....	*Approved
Hazardous Air Pollutant (HAP).....	No
National Emission Standards for Hazardous Air Pollutants (NESHAPs).....	Not regulated
Superfund Amendments and Reauthorization Act (SARA).....	Not regulated
Resource Conservation and Recovery Act (RCRA).....	Not regulated

\*LENIUM FHD components

## DISPOSAL/SAFETY

**Disposal:** Petroferm recommends contacting your current or local environmental service company for disposal of this product.

**Safety:** Please see Material Safety Data Sheet for further information.

**Storage:** LENIUM FHD should be stored in the original container, preferably above 50°F (10°C), in a ventilated, fire-resistant building.

**Packaging:** LENIUM FHD is available in 50 lb (23 kg) pails and 500 lb (227 kg) drums.



## Petroferm

*Advanced Products for Advanced Cleaning*

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