



Better Chemistry. **Better Business.**

Hubtron HDS

Product Code: 0321601
Revised Date: 08/18/2010

Hubtron HDS

DESCRIPTION

Hubtron HDS is a heavy duty degreasing solvent suited for use in vapor degreasing and “cold cleaning” applications including hydraulic lines. It is ideal for replacing HCFC-141b and perfluorocarbons in many applications due to a “zero” ozone depletion and low global warming potential.

Hubtron HDS consists of Vertrel[®] XF (2,3-dihydrodecafluoropentane) and HFC-365 (pentafluorobutane) with trans-1,2-dichloroethylene.

Vertrel[®] is the registered trademark of E.I. du Pont de Nemours and Company.

FEATURES AND BENEFITS

- SNAP Approved
- No Ingredients classified as Hazardous Air Pollutants (HAP), therefore not subject to NESHP
- Not subject to SARA Title III reporting
- “Zero” ozone depleting potential
- Low global warming potential
- Enhanced solvency for hydrocarbon soils

TYPICAL APPLICATIONS

- Vapor degreasing
- “Cold Cleaning”
- Precision cleaning applications
- May be used as a carrier fluid for silicone and other materials of lubrication and mold release applications



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PHYSICAL AND CHEMICAL PROPERTIES

Odor: Slight Ethereal
Boiling Point: 41o C / 106o F estimated
Solubility in Water: 0.4%
% Volatile by Weight: 100
Vapor Density (air=1): 3.4
Evaporation Rate (Ether = 1): >1
Molecular Weight: 138
Liquid Density, g/cc (lb/gal): 1.34 (11.1)
Vapor Pressure, mm Hg (psia): 488 (9.4) estimated
Surface Tension, dyn/cm: 18.8
Freezing Point, oC(oF): -35 (-31)
Heat of Vaporization at
Boiling Point, cal/goC(Btu/lboF): 47 (85) estimated
Viscosity, cPs: 0.57
Flash Point:
Closed Cup (ASTMD 93): None
Open Cup (ASTMD 1310-86): None

APPLICATION METHODS

Composition and specifications are shown below. All components are listed in the TSCA inventory.

Vertrel XF, wt%: 25.0 +/-1.0
HFC 365mfc, wt%: 25.0 +/-1.0
Trans-1,2-Dichloroethylene, wt%: 50.0 +/-1.0
Acidity (as HCl), ppm wt.: 1.0 max
Appearance: Clear, colorless
Moisture ppm wt : 200 max.
Nonvolatile Residue, ppm wt.: 50 max.



Product Bulletin

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RECOVERY

Due to the azeotropic nature of this formula, this material is easily recoverable by off-line or in-line distillation equipment such as a vapor degreaser or still. The presence of soil, however, may alter the characteristics of the material during the recovery operation.

Recovery should be closely monitored to ensure that the operating levels are maintained. Users should test the spent ingredients to ensure proper classification for waste disposal.

WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.