Hubtron CF

Product Code: 0321600
Revised Date: 08/24/2010

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DESCRIPTION

Hubtron CF Specialty Solvent is patented blend of hydrofluorocarbons Vertrel® XF (2,3 dihydrodecafluoropentane) and HFC-365mfc (1,1,1,3,3-pentafluorobutane). It has "zero" ozone depletion potential, and low global warming potential, making it an ideal replacement for perfluorocarbons (PFCs) in many applications.

Hubtron CF Solvent is intended for use as a carrier solvent for fluorocarbon lubricants, such as DuPont's Krytox fluorolubricants. It provides a non-flammable, fast drying medium that quickly deposits uniform, thin layer of lubricant.

FEATURES AND BENEFITS

- Mild Solvency
- Excellent compositional stability
- Not photochemically reactive
- SNAP Approved
- Not a Hazardous Air Pollutants (HAP), therefore not subject to NESAHP
- Not subject to SARA Title III reporting
- "Zero" ozone depleting potential
- Low global warming potential
- Exempt from VOC classification

TYPICAL APPLICATIONS

- Carrier solvent for fluorocarbon lubricants
- May be used as a rinsing agent or flushing solvent for micro particulate removal
- Suitable for use in boiling systems, including vapor degreasers

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PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight: 197
Boiling Point, °C (°F): 45 (113)
Liquid Density, g/cc (lb/gal): 1.44 (12.0)
Vapor Pressure, mm Hg (psia): 347 (6.7)
Surface Tension, dyn/cm: 15.9
Freezing Point, °C (°F): –21 (–6)
Heat of Vaporization at:
    Boiling Point, cal/g (Btu/lb): 36 (65)
Heat Capacity, cal/g°C (Btu/lb°F): 0.3 (0.3)
Viscosity, cPs: 0.63
Flash Point, °C (°F):
    Closed Cup[b]: None
    Open Cup[c]: None
Vapor Flammability in Air, vol%:
    Lower Limit: 7
    Upper Limit: 8

Properties at 25°C (77°F), except where indicated.
[b] Pensky Martens Closed Cup Tester (ASTM D 93)
[c] Tag Open Cup Tester (ASTM D 1310-86)

SUBSTRATE COMPATIBILITY

Most plastics can be safely cleaned in **Hubtron CF** Solvent Acrylic, ABS, and polycarbonate parts, particularly if under stress, may show slight cracking or crazing damage and should be tested. EPDM, butyl rubber, Buna-S, and neoprene are recommended for elastomeric parts.

Elastomer swelling and shrinking will, in most cases, revert to within a few percent of original size after air drying. Swell, shrinkage, and extractables are strongly affected by the compounding agents, plasticizers, and curing used in the manufacture of plastics and elastomers. Therefore, prior in-use testing is particularly important

Hubtron CF Solvent was found compatible with aluminum, copper, and iron. **Hubtron CF** Solvent is not compatible with strong bases; therefore, contact with highly basic process materials is not recommended.

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STORAGE/HANDLING

Hubtron CF Solvent is thermally stable and does not oxidize or degrade during storage. Store in a clean, dry area. Protect from freezing temperatures. Do not allow stored product to exceed 52°C (125°F) to prevent leakage or potential rupture of container from pressure and expansion. Consideration should be given to retrofit of existing, or purchase of new, vapor degreasing equipment to provide vapor containment technology that enables safe and economical use of **Hubtron CF** Solvent. Although **Hubtron CF** Solvent is not classified as a flammable liquid by DOT/NFPA, it does have flammable limits in air. A drum pump is recommended to dispense the product from its container. If an electric drum pump is used, avoid operation near open equipment or when solvent vapors are present.

In these cases, consideration should be given to the use of a flammable-rated drum pump. If a large release of vapors occurs, such as from a large leak or spill, the vapors may concentrate near the floor or in subfloor areas and displace the oxygen available for breathing, causing suffocation. Evacuate everyone until the area has been well ventilated. Do not re-enter the affected areas without self-contained breathing apparatus unless the **Hubtron CF** Solvent concentration is below the AEL.

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.

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