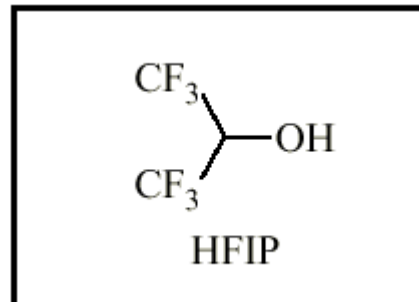




DuPont Chemical Solutions Enterprise

## Technical Information



## Hexafluoroisopropanol

Hexafluoroisopropanol (HFIP) is a water-white liquid available in two grades to meet your needs. HFIP technical is a high purity grade suitable for most chemical formulating. HFIP Specialty Solvent is especially designed for laboratory solvent applications. HFIP is highly polar, miscible with water and many organic solvents, thermally stable, and transparent to UV light. These properties make it ideal as a solvent in many polymer systems. Additional information on uses is given below.

### Specifications

#### *Hexafluoroisopropanol Technical*

<u>Property</u>	<u>Limit</u>
Purity, %	99.0 min
Water, %	0.1 max.
Pentafluoroisopropanol, ppm	1000 max.
Hexafluoropropane, ppm	1000 max.
Hexafluoropropene, ppm	1000 max.
Trifluoroethanol, ppm	1000 max.
Trifluoropropanol, ppm	1000 max.
Hexafluoroisopropyl perfluoropropionate, ppm	2000 max.
Other impurities, ppm	3000 max.

#### *Hexafluoroisopropanol Specialty Solvent*

<u>Property</u>	<u>Limit</u>
Purity, %	99.97 min.
Water, ppm	100 max.
Pentafluoroisopropanol, ppm	50 max.
Hexafluoroacetone, ppm	40 max.

### Uses

HFIP is used as an intermediate for pharmaceuticals and agrochemicals, as solvent or cleaner in electronics. In addition, HFIP finds use in analytical applications due to its ability to dissolve a variety of polymers including polyesters, polyamides, polyacrylonitriles, polyacetals, and hydrolyzed polyvinyl esters.

HFIP is a volatile and polar material, with high density, low viscosity and low surface tension. It is transparent to UV light (<2000 Å), and has a low refractive index.

### Solvent Properties

Hexafluoroisopropanol exhibits strong hydrogen bonding and will associate with and dissolve most molecules with receptive sites such as oxygen, double bonds, or amine groups. Stable distillable complexes are formed with many ethers and amines due to strong hydrogen bonding. HFIP is soluble in water and most organic solvents, but immiscible with long chain alkanes.

### Handling

HFIP is corrosive to eyes on contact, and a strong skin and respiratory irritant. Care should be taken to avoid contact by wearing appropriate gloves, safety glasses and other protective equipment as needed.

Refer to the MSDS for further handling information. This product may also contain a very low level of hexafluoroacetone, which is a potential reproductive hazard.

### Typical Physical Properties\*

Property	Value
CAS Name	1,1,1,3,3,3-Hexafluoro-2-propanol
CAS Number	920-66-1
Formula	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub> O
Molecular weight	168.05
Form	Water-white liquid
Boiling point, 760 mm Hg	58.2 C (136.8 F)
Melting point	-3.3 C (26 F)
Density, 25 C (77 F)	1.6047 g/ml, 13.3 lb/gal
Refractive index, nd <sub>25</sub>	1.2752
Surface tension, 25 C (77 F)	16.14 dyn/cm
Viscosity at 25 C (77 F)	1.021 cs
Viscosity at 38 C (100 F)	0.670 cs
Coefficient of expansion	0.0018/deg C (0.0010/deg F)
Latent heat of vaporization	52 cal/g (93 Btu/lb)
Vapor pressure	120 mm Hg at 20 C (68 F)

\*This table gives typical properties based on historical production performance. DuPont does not make any express or implied warranty that these products will continue to have these typical properties.

### Packages

HFIP Technical is supplied in 160 kg (352.7 lb) net steel drums and in isotanks. HFIP Specialty Solvent is available in 5.44 kg (12 lb) pails. Samples of 401 g (250 mL) are also available.

### Contact Us

Please contact us to place an order, receive samples, or discuss with us a custom product.

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