

DuPont FluoroIntermediates

HFIBO

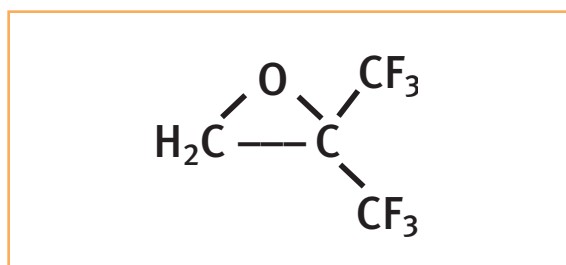
Hexafluoroisobutylene epoxide



Brief Description and Uses

HFIBO is the epoxide of hexafluoroisobutylene. It is a stable, colorless liquid useful as an intermediate in chemical synthesis and in specialty polymers. Hexafluoroisobutylene epoxide (HFIBO) is a versatile intermediate for introducing a hydroxy-substituted hexafluoropropyl group into a variety of substrates. The epoxide ring may be opened with nucleophiles such as alkyl or aromatic alcohols, thiols, or amines and by reaction with acids, HX where X is halogen, carboxylate, or sulfonate, to give compounds of the type NuCH₂C(CF₃)₂OH and XCH₂C(CF₃)₂OH, respectively. The latter compound may be dilithiated and reacted selectively with a number of electrophiles. In addition, HFIBO can also alkylate aromatic substrates to give the corresponding alcohol, ArCH₂C(CF₃)₂OH, with C-C bond formation.

HFIBO-functionalized materials have found application in such diverse fields as electroluminescent devices, photoresist polymers, and transition metal and non-transition metal chemistry.



Product Data

Chemical name	Oxirane, 2,2-bis(trifluoromethyl)
CAS number	31898-68-7
EINECS number	Not listed
TSCA	Not listed
Shipping UN number	UN2810
Shipping Hazard Class, Packing Group	Haz 6.1, Packing Group II
Toxicity	See MSDS
Molecular weight	180 g/mole
Boiling point at 1 atm.	41°C (106°F)
Purity	>99 wt%
Vapor pressure at 20°C	6.3 psia
Liquid density at 20°C	1.493 g/ml

* For research purposes only.



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