

- (2) **Perfluoroisobutylene**
1,1,3,3,3 - pentafluoro-2-trifluoromethyl-1-propene
CAS No. 382-21-8
HS No. 29.03.30.90

Synthesis: It is a by-product of the production of tetrafluoroethylene in the pyrolysis of chlorodifluoromethane. The reaction conditions chosen to prepare tetrafluoroethylene lead to the formation of perfluoroisobutylene (PFIB) to the extent of 0.1% of the pyrolysis product. Another product of the pyrolysis is hexafluoropropene which can also be pyrolyzed at 700-800°C when PFIB is obtained in yields of up to 30% (CD/CW/WP.239, 1989).

Toxicology: PFIB has approximately the same toxicity as hydrogen cyanide (See Schedule 3).

Uses: There are no known industrial applications of PFIB.

Literature Survey:

Examination of Chemical Abstracts from 1986 till May 1992 produced 55 references from five countries; Russia (34), USA (15), UK (3), Japan (21) and Germany (1). (Annex 1).