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(54) Title: 1,1,1,3,3-PENTAFLUOROBUTANE REFRIGERANT OR HEAT TRANSFER FLUID COMPOSITIONS COMPRISING HYDROFLUOROCARBON AND USES THEREOF

(57) Abstract: Disclosed herein are 1,1,1,3,3-pentafluorobutane refrigerant or heat transfer fluid compositions further comprising hydrofluorocarbon, , N-(difluoromethyl)-N,N-dimethylamine, 1,1,1,2,2-pentafluoro-2-[(pentafluoroethyl)thio]ethane or mixtures thereof, which are useful in refrigerain or air conditioning apparatus or as heat transfer fluids. The compositions of the present invention are also useful in centrifugal compressor apparatus that employ two-stage compressors or single slab.single pass heat exchangers.