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## (54)Refrigerator oil composition and fluid composition for refrigerator

- A refrigerator oil for use with an HFC refrigerant containing HFC-134a and/or HFC-125, which comprises:
  - (A) 70 to 99% by weight of an alkylbenzene oil containing at least 60% by weight (based on the total weight of the component (A)) of alkylbenzenes having a molecular weight of 200 to 350 and
- (B) 30 to 1% by weight of a synthetic oil containing oxygen. There is also proposed a refrigerator fluid composition comprising the above-mentioned refrigerator oil and an HFC refrigerant containing HFC-134a and/or HFC-125, together with or without an additive such as a phosuphorus compound.

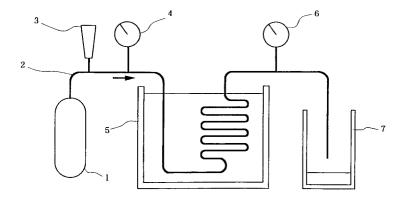


FIG. 1



## EUROPEAN SEARCH REPORT

Application Number EP 95 11 2085

DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document with indication, where appropriate, Relevant			CLASSIFICATION OF THE		
ategory	of relevant pa		to claim	APPLICATION (Int.Cl.6)	
	EP-A-0 693 546 (NIP January 1996 * example 7 *	PON OIL CO LTD) 24	1-4	C10M171/00 C10M169/04 C09K5/04 //(C10M169/04, 105:06,105:08, 137:00), C10N20:04, C10N30:06, C10N40:30	
(	EP-A-0 496 937 (HIT * claims 1-5 *	ACHI LTD) 5 August 1992	1-4		
(	EP-A-0 557 796 (IDE September 1993 Comparative example	,	1,3		
(	WO-A-90 05172 (ASAH 1990 * page 8, line 27 - claims 1-4 *	I GLASS CO LTD) 17 May page 10, line 8;	1-4		
(	DE-A-28 05 604 (CHE 1978 * claims 1-8 *	VRON RES) 17 August	1-4		
(	13 October 1992	MAS RAYMOND H P ET AL) -52; claims 1-11,19;	1-4	TECHNICAL FIELDS SEARCHED (Int.Cl.6) C10M C09K	
	US-A-3 092 981 (GEN June 1963	ERAL MOTORS CORP.) 11			
	The present search report has b	een drawn up for all claims			
	Place of search	Date of completion of the search		Examiner	
	MUNICH	15 March 1996	Kil	iaan, S	
X : part Y : part doct	CATEGORY OF CITED DOCUMER  icularly relevant if taken alone icularly relevant if combined with and ument of the same category unological background	E : earlier patent doc after the filing da	e underlying the nument, but publiste ate in the application	e invention lished on, or	