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C10M 159/12 , C10M 133/52
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C10M 133/54 , C10M 159/16
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C10M 149/12 , C10M 129/95
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C10L 1/18 , C10L 1/22 ,
//(C10M159/12,145:26,129:38,
133:52,133:54,133:56,133:58,
159:16),C10N30:04,C10N40:00,
C10N40:04,C10N40:08,
C10N60:06,C10N60:14**

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(54) **Oil soluble dispersant additives useful in oleaginous compositions.**

(57) An oil soluble dispersant comprising the reaction products of:

(1) oil soluble salts, amides, imides, oxazolines, esters, or mixtures thereof of long chain hydrocarbyl substituted mono- and dicarboxylic acids or their anhydrides, (ii) long chain hydrocarbon having a polyamine attached directly thereto, and (iii) Mannich condensation product formed by condensing a long chain hydrocarbyl substituted hydroxy aromatic compound with an aldehyde and a polyalkylene polyamine, said adduct containing at least

one reactive group selected from reactive amino groups and reactive hydroxyl groups; and
(2) at least one polyepoxide.

EP 0 317 353 A3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int Cl 4)
X	US-A- 3 378 503 (G.P. SPERANZA et al.) * Abstract; column 1, line 29 - column 2, line 13, lines 41-67; column 3, lines 72-74; column 4, lines 13-16 ; claims 8-10 *	1,12,13,14-16	C 08 G 59/64 C 08 G 59/62 C 10 M 159/12 C 10 M 133/52 C 10 M 133/54 C 10 M 159/16
Y	* Abstract; claim 8 *	2,17,18	C 10 M 149/12 C 10 M 129/95 C 10 L 1/18
Y	EP-A-0 002 517 (BASF AG) * Abstract; page 3, line 1 - page 4, line 1; page 14, line 8 - page 15, line 22 *	2	C 10 L 1/22// C 10 N 30:04, 40:00 40:04, 40:08, 60:06, 60:14
A	--	12,14-16	(C 10 M 159/12, 145:26, 129:38, ./.)
Y	EP-A-0 208 560 (EXXON CHEMICAL PATENTS INC.) * Abstract; page 1, lines 1-34; page 6, line 6 - page 12, line 2 *	2	
A	* Abstract; page 1, line 1 - page 3, line 34; page 6, line 7 - page 8, line 5; page 8, line 25 - page 9, line 29; page 9, line 25 - page 12, line 2; claims 1-13 *	1,3,4,5-11	TECHNICAL FIELDS SEARCHED (Int Cl 4) C 10 M C 10 L C 08 G
X	EP-A-0 043 934 (BASF AG) * Abstract; page 3, line 10 - page 5, line 24, line 31 - page 12, line 17; page 13, line 31 - page 14, line 8, line 28 - page 15, line 19, line 26 - page 16, line 18; examples 1,2,5-7; claims 1,3-7 *	1,3,12,14-16	
Y	--	2	
The present search report has been drawn up for all claims		./.	
Place of search The Hague		Date of completion of the search 25-09-1989	Examiner FISCHER
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid.
- namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

X LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions.

namely:

1. Claims 1-3, 12, 14-16
2. Claim 4
3. Claims 5-11
4. Claim 13
5. Claims 17, 18

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid.
- namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.
- namely claims:



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	EP-A-0 43 935 (BASF AG) * Abstract, page 1, line 10 - page 6, line 21; page 7, lines 12-26; page 8, line 14 - page 16, line 18; claims 1,3 *	1,3,12, 14-16	C 10 M 133:52, 133:54, 133:56, 133:58, 159:16)
Y			
A	* Abstract *	2 4,5	
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X	US-A-3 386 953 (H.N DUNNING et al.) * Abstract; column 3, line 5 - column 4, line 24; column 5, lines 42-63; column 10, line 72- column 13, line 37 *	1,12, 14-16	
Y		2	
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Y	EP-A-74 618 (HOECHST AG.) * Abstract; claim 8 *	17,18	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
A	* Abstract; page 4, lines 1-3 *	1	
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Y	EP-A-0 062 714 (EDWIN COOPER & CO. LTD.) * Abstract; page 1, line 1 - page 4, line 5; page 5, lines 7-21 *	2	
A	* Abstract; page 1, line 1 - page 5, line 25; example 1, claims 1,3-5,7 *	1,3,4, 5-11	
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Y	US-A-4 234 435 (N.A. MEINHARDT et al.) * Abstract; column 1, line 11 - column 5, line 32, line 55 - column 10, line 35; column 11,	2	
The present search report has been drawn up for all claims		./.	
Place of search		Date of completion of the search	Examiner
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A	line 55 - column 12, line 67 *	1, 3, 4, 5-11	
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Y	US-A-4 720 350 (B.H. ZOLESKI et al.) * Abstract; column 1, line 45 - column 2, line 12; column 5, lines 38-58 *	17, 18	
A	* Abstract; column 1, line 46 - column 2, line 56; tables I, II *	4	

The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
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O : non-written disclosure		L : document cited for other reasons	
P : intermediate document		& : member of the same patent family, corresponding document	