US006099636A

United States Patent [19]

Henning et al.

[11] **Patent Number: 6,099,636**

[45] **Date of Patent: Aug. 8, 2000**

[54] **N,N'-DIMETHYLPERYLENE-3,4,9,10-TETRACARBOXYLIC ACID DIIMIDE PIGMENTS SUITABLE FOR WATER-BASED PAINTS**

[75] Inventors: **Georg Henning**; **Peter Blaschka**, both of Ludwigshafen; **Arno Böhm**, Mannheim, all of Germany

[73] Assignee: **BASF Aktiengesellschaft**, Ludwigshafen, Germany

[21] Appl. No.: **09/101,444**

[22] PCT Filed: **Jan. 9, 1997**

[86] PCT No.: **PCT/EP97/00064**

§ 371 Date: **Jul. 16, 1998**

§ 102(e) Date: **Jul. 16, 1998**

[87] PCT Pub. No.: **WO97/26301**

PCT Pub. Date: **Jul. 24, 1997**

[30] **Foreign Application Priority Data**

Jan. 19, 1996 [DE] Germany 196 01 752

[51] **Int. Cl.**[7] **C09B 67/22**; C09B 67/08; C09B 5/62; C09D 5/02

[52] **U.S. Cl.** **106/498**; 106/493; 546/37

[58] **Field of Search** 106/493, 498; 546/37

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,375,123	3/1968	Krocker et al.	106/419
3,615,800	10/1971	Spietschka et al.	106/493
3,628,976	12/1971	Stocker	106/278
3,976,649	8/1976	Fabian et al.	546/66
4,153,602	5/1979	Schiessler et al.	546/37
4,189,582	2/1980	Hoch et al.	546/37
4,301,049	11/1981	Funatsu et al.	524/190
4,431,806	2/1984	Spietschka et al.	546/37
4,450,273	5/1984	Graser	546/37
4,496,731	1/1985	Spietschka et al.	546/37
4,797,162	1/1989	Spietschka et al.	106/498
5,472,494	12/1995	Hetzenegger et al.	106/493

FOREIGN PATENT DOCUMENTS

662 638	10/1965	Belgium .	
679 457	10/1966	Belgium .	
0 636 666	2/1995	European Pat. Off. .	
1 576 477	8/1969	France .	
2 300 115	9/1976	France .	
30 16 717	11/1970	Germany .	
2504481	8/1976	Germany	106/493
3436206	4/1986	Germany	106/498
1 313 147	4/1973	United Kingdom .	
2029440	3/1980	United Kingdom	106/498

Primary Examiner—Anthony Green
Attorney, Agent, or Firm—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

[57] **ABSTRACT**

A N,N'-dimethylperylene-3,4,9,10-tetracarboxylic diimide pigment suitable for aqueous basecoats is obtainable by coating the diimide, suspended in an aqueous medium, with a carboxyl-carrying resin in the presence of 3,4-dicarboximidoperylene-9-sulfonic acid or salts thereof and with a C_8–C_8-alkyl- or-alkenylamine, isolating and drying the coated dimide and then subjecting it to dry milling.

8 Claims, No Drawings