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(58) **Field of Classification Search**
None
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,212,936	A *	10/1965	McEvoy	H01M 4/96	252/182.1
6,303,078	B1 *	10/2001	Shimizu	D06M 16/00	422/14
6,676,954	B2 *	1/2004	Dai	A01N 43/80	424/400
2002/0001618	A1 *	1/2002	Dai	A01N 43/80	424/468
2007/0237738	A1 *	10/2007	Hanzlicek	A61L 2/18	424/76.2

FOREIGN PATENT DOCUMENTS

EP	1142477	A2 *	10/2001	A01N 43/80
WO	WO 2009045941	A1 *	4/2009	A01N 25/26

* cited by examiner

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(57) **ABSTRACT**

A composition containing 4,5-dichloro-2-n-octylisothiazolin-3-one and an activated carbon having a surface area of at least 700 m^2/g.

10 Claims, No Drawings