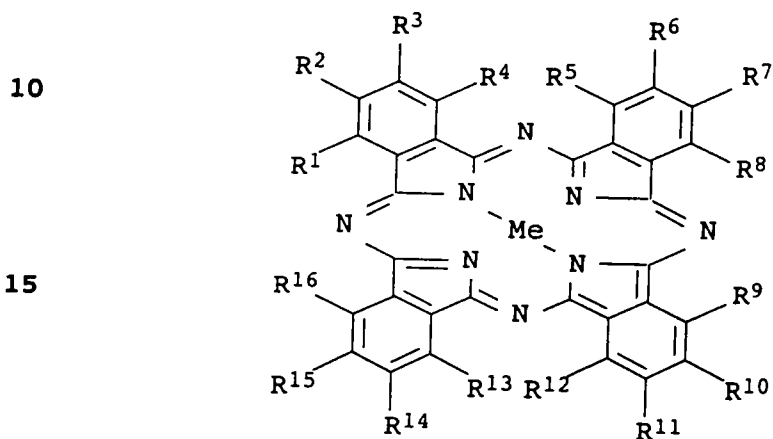


## Phthalocyanines and use thereof as markers

## Abstract

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Phthalocyanines of the formula



where

Me is twice hydrogen, twice lithium, magnesium, zinc, copper, nickel, VO, TiO, AlCl, AlOH, AlOCOCH<sub>3</sub>, AlOCOCH<sub>3</sub>F<sub>3</sub>, SiCl<sub>2</sub> or Si(OH)<sub>2</sub>,

25 at least four of the radicals R<sup>1</sup> to R<sup>16</sup> are each independently of the others a five- or six-membered saturated nitrogen-containing heterocyclic radical which is bonded to the phthalocyanine structure via a ring nitrogen atom and which can additionally contain further hetero atoms,

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and

any remaining radicals R<sup>1</sup> to R<sup>16</sup> are each hydrogen, halogen, hydroxysulfonyl or C<sub>1</sub>-C<sub>4</sub>-dialkylsulfamoyl,

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subject to the proviso that tetrakis(piperidinyl)phthalocyanine shall be excluded,

and heterocyclyl-substituted phthalocyanines are useful for  
40 marking liquids, in particular mineral oils.

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