

TECHNOLOGY AVAILABLE FOR LICENSING

UNIVERSITY of



DAYTON

Non-Toxic Corrosion Protection Pigments

Advantages:

- Chrome Free
- Non-toxic
- Pigments available in many colors
- Works well in multiple applications

Applications:

- Protection of metal and other surfaces from corrosion equal to chrome
- Any application where chrome cannot be used to protect metals
- Easy application and use

Description:

This invention is a series of corrosion-inhibiting pigments using a rare earth element, manganese, or cobalt and a valence stabilizer combined to form a metal/valence stabilizer complex. An inorganic or organic material is used to stabilize the tetravalent metal ion to form a compound that is sparingly soluble in water. Specific stabilizers are chosen to control the release rate of tetravalent cerium, terbium, or praseodymium during exposure to water and to tailor the compatibility of the powder when used as a pigment in a chosen binder system. Stabilizers may also modify the processing and handling characteristics of the formed powders. Many stabilizer combinations are presented that can equal the performance of conventional hexavalent chromium systems.

IP Status:

<https://www.google.com/patents/US7291217>

<https://www.google.com/patents/US7833331>

<https://www.google.com/patents/US7789958>

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