# **Alternatives to Titanium Dioxide**

# For Pharmaceutical & Nutraceutical Applications







# YOUR BENEFITS

- > Titanium Dioxide free formulations
- ▶ Non-genotoxic
- Opacifying and whitening properties
- Synergistic effects for your coating formulation

YOUR DOSAGE FORM EXPERTS

## BUSINESS UNIT PHARMA Your Dosage Form Experts



 $TiO_2$  free coating formulation



- Titanium Dioxide/TiO<sub>2</sub> (E171) is considered genotoxic, since genotoxicity could not be ruled out and a safe daily intake could not be established.
- The EFSA has updated its safety assessment of TiO<sub>2</sub> to "no longer considered safe as a food additive".
- TiO<sub>2</sub> can be easily replaced by Talc Micro Ace P-3, Omya Calcipur<sup>®</sup> or galenIQ<sup>™</sup> 720 for pharmaceutical and nutraceutical applications.

### Talc Micro Ace P-3

- Whiteness of >95%
- Opacifying properties
- High specific surface area for lower Talc inclusion levels in coating formulations

• Organic-free coating solutions possible

Approved for nutraceutical applicationsSafe and sustainable coating process

• Asbestos free

galenIQ<sup>™</sup> 720

Absence of black particles

• Improves gloss of coating

Non-ionic character

• Anti tacking properties

#### **Omya Calcipur®**

- Natural Calcium carbonate from marble
- Approved for nutraceutical applications
- Opacifying properties
- High specific surface area for lower Calcipur<sup>®</sup> inclusion levels in coating formulations

HARKE

Pharma & Nutra

- Sustainable
- Cost-effective
- Brightness CIELAB L 98.5

#### More possibilities: the right polymer

- Hypromellose (HPMC)
- Gohsenol<sup>™</sup> EG (PVA)
- Polyglykol (PEG)
- Tabletting

HARKE Pharma GmbH Business Unit Pharma & Nutra Xantener Straße 1 45479 Mülheim an der Ruhr Germany

- +49 (0)208 3069-0
- nutra@harke.com
- www.harke.com/nutra

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