



EXCIPIENTS & DIETARY SUPPLEMENTS

FACT

- > Acala™ USP products meet the exacting standards for U.S. Pharmacopeia, and the requirements for California Proposition 65 regarding trace lead impurity leads.

- > **Acala™ USP Precipitated Calcium Carbonate** occurs as a fine, white, odorless, tasteless powder that is stable in air. When used in tablets containing aspirin, discoloration caused by traces of iron can be easily overcome with a chelating agent.

- They are partially insoluble in water and insoluble in alcohol.
- It dissolves with effervescence in 1 N acetic acid, in 3 N hydrochloric and in 2 N nitric acid.



FACT

- > Kaopolite™ Kaolin KR meets the exacting standards for U.S. Pharmacopeia.

- > **Kaopolite™ Kaolin KR** is a naturally occurring mineral. The soft, white powder has an earthy or clay-like taste.

- It is insoluble in water, cold dilute acids, and solutions of alkali hydroxides.
- It is an adsorbent and often employed in the preparation of pill masses, especially in the presence of substances which are readily oxidized or reduced.
- It may alter the absorption of orally administered drugs such as amoxicillin, ampicillin, cimetidine, digoxin, lincomycin, phenytoin, and tetracycline.
- It forms a silicate basis for many carbolic and similar disinfectant powders. Kaopolite products are also used as filtering mediums, to clear syrups and cloudy solutions of volatile oils.

FACT

- > Micro-White® Codex products are certified as Kosher (CAS No: 1317-65-3), and meet the Food Chemical Codex requirements.
- > Element Calcium Content: Calcium Carbonate 40%.

- > **Micro-White® Codex** products are mined and processed at a single domestic facility, resulting in short lead times and an uninterrupted supply for Imerys customers.

- They are composed of 40% elemental calcium. Most other forms of calcium contain significantly less elemental calcium and are priced much higher.

TYPICAL PROPERTIES TO BE OBTAINED IN EXCIPIENTS

Typical Properties	Acala™ USP 1300CS	Acala™ USP 2300CS	Acala™ USP 2300	Acala™ USP 5300	Acala™ USP 7300	Kaopolite™ Kaolin KR
Crystal Structure	Calcite Scalenohedral	Calcite Scalenohedral	Aragonite	Aragonite	Aragonite	N/A
Brightness (%)	98.5	98.5	98.5	98.1	98.0	88
Moisture (Max. %)	0.2	0.2	0.3	0.3	0.3	1.0
Retained + 325 Mesh (%)	0.02	0.01	0.002	0.002	0.003	<0.03
Median Particle Size (Microns)	1.8	2.3	2.5	5.0	7.0	0.6
Tapped Density (g/cm ³)	0.5	0.55	0.62	0.90	0.97	N/A
Hardness (Mohs)	3	3	3	3	3	N/A
Index of Refraction	1.6	1.6	1.6	1.6	1.6	1.56
Whiteness (L Value)	N/A	N/A	N/A	N/A	N/A	95
pH (20% Solids)	N/A	N/A	N/A	N/A	N/A	4.2-5.2
Specific Gravity	2.7	2.7	2.9	2.9	2.9	2.58
Oil Absorption	N/A	N/A	N/A	N/A	N/A	40
Bulking Value (lbs/solid gallon)	N/A	N/A	N/A	N/A	N/A	21.66

TYPICAL PROPERTIES TO BE OBTAINED IN DIETARY SUPPLEMENTS

Typical Properties	Micro-White® 100 Codex	Micro-White® 75 Codex	Micro-White® 50 Codex	Micro-White® 30 Codex
Retained +325 Mesh (%)	5-11	<1.0	<0.05	<0.005
Median Particle Size	19	13	8	3
CaCO ₃ (%)	95	95	95	95
Acid Insolubles (%)	<2.5	<2.5	<2.5	<2.5
MgCO ₃ & Alkali Salts	2.4	2	2	2
Arsenic (ppm)	<0.8	<0.8	<0.8	<0.5
Flouride (ppm)	<50	<50	<50	<50
Heavy Metals (ppm)	<20	<20	<20	<20
Mercury (ppm)	<0.1	<0.1	<0.1	<0.1
Lead (ppm)	<3	<3	<3	<3
Color	White	White	White	White
Odor	None	None	None	None
Taste	None	None	None	None
Specific Gravity	2.7	2.7	2.7	2.7
Loss on Drying	0.1	0.1	0.1	0.1

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