



**Sino-American  
Pigment Systems, Inc.**

QUALITY RAW MATERIALS ■ ENVIRONMENTAL TECHNOLOGY

**Product Specification  
Calcium Citrate Granular - USP Grade**

<b><u>ATTRIBUTES</u></b>	<b>Specification</b>	<b>Units</b>	<b>Test Methods</b>
CALCIUM	20 - 22	%	ICPMS
CALCIUM CITRATE	97.5 – 100.5	%	USP 24
OVI's	NONE DETECTED	N/D	USP 24
LOSS ON DRYING	10.0 – 13.3	%	USP 24
HEAVY METALS	MAX 20	PPM	USP 24
LEAD	MAX 0.250	PPM	ICPMS
ARSENIC	MAX 1.0	PPM	USP 24
FLUORIDE	MAX 30	PPM	USP 24
ACID INSOLUBLE	MAX 0.2	%	USP 24
<b><u>MICROBIAL SPECIFICATIONS</u></b>			
TOTAL PLATE COUNT	MAX 1000	cfu/gm	AOAC
TOTAL COLIFORM	MAX 100	cfu/gm	AOAC
YEAST AND MOLDS	MAX 100	cfu/gm	AOAC
CP STAPH	NEGATIVE	NEG	AOAC
E. COLI	NEGATIVE	NEG	AOAC
SALMONELLA	NEGATIVE	NEG	AOAC
<b><u>PHYSICAL SPECIFICATIONS</u></b>			
<b>PARTICLE SIZE</b>			
THROUGH #16 MESH	MIN 100.0	%	USP 24
THROUGH #20 MESH	MIN 99.0	%	USP 24
THROUGH #40 MESH	MIN 60.0	%	USP 24
THROUGH #60 MESH	MIN 10.0	%	USP 24
THROUGH #80 MESH	MAX 10.0	%	USP 24
THROUGH #100MESH	MAX 10.0	%	USP 24
<b>BULK DENSITY</b>			
LOOSE	0.6 – 0.7	g/cc	USP 24
TAPPED	MIN 0.7	g/cc	USP 24
<b>APPEARANCE</b>			
	WHITE GRANULAR POWDER	TO PASS	VISUAL
FOREIGN MATTER	ABSENT	TO PASS	VISUAL
ODOR	CHARACTERISTIC	TO PASS	OLFACTORY
TASTE	CHARACTERISTIC	TO PASS	GUSTATORY
PRODUCT ID	TEST A	TO PASS	USP 24
	TEST B	TO PASS	USP 24
SHELF LIFE	MIN 2 YERS	TO PASS	ICP & USP 24

**PACKAGING:** 20 KG PAPER BAG, PALLETIZED AND SHRINK WRAPPED

*THIS PRODUCT SHOULD BE STORED SEALED IN A COOL AND DRY PLACE.*

DS/o/cal citrate.62402