



Sino-American Pigment Systems, Inc.

QUALITY RAW MATERIALS • ENVIRONMENTAL TECHNOLOGY

White Cloud® SAFE YELLOW IC -C & H PRODUCT DESCRIPTION

Description: Non-Toxic Inorganic **Yellow Opacifying Pigment** is a **non-toxic, low-cost**, high performance alternative to Lead Chromate for applications requiring **opacity, dispersability, low oil-absorption**, with **high color, sunlight, heat, and weathering stability**. Three opacity grades are offered. Optical scatter, fineness and dispersability are developed to a high performance level by a proprietary, ultra-pure co-precipitation and calcination of ZnS:BaSO₄ producing an opaque co-crystalline yellow particle. The fineness, purity and low water-soluble zinc content of Safe Yellow IC® insure **wide application system compatibility** and low acid reactivity. Micronization of **spherical nodular shape** with particle surface modifications offer **low oil absorption** with resulting **low VOC and resin demand**, together with **superior dispersability and suspension stability**. **Low Mohs hardness** reduces film matrix internal shear forces imparting improved flexibility, adhesion, abrasion resistance, and tensile strength while **reducing wear on molds, coil-rollers, spray-tips and ink screens**. Ingredients **conform to FDA** requirements in 21CFR for §175.105;.300;.320;.170;.180 approved for indirect food contact, Safe Yellow IC **contains no regulated heavy metals**, is water insoluble, reaction less with H₂S and alkali solutions. Packed in 25 kg paper bags.

Applications: Safe Yellow IC is ideally suited as an extender for expensive organic pigments within high quality industrial finishes to impact undertone color for **Red, Orange and Yellow** within paint and powder coatings, plastics and mastics, **reducing organic and TiO₂ usage to improve flow, opacity, dispersability and film performance while dramatically reducing costs**. The utilization of Safe Yellow IC achieves heretofore unattainable **high solids and low VOC's** for primers, top **coatings**, plastic **color concentrates, Kraft paper inks**, and **mastic** formulations. Safe Yellow IC offers low-dusting, excellent dispersion, suspension stability, and high thermostability characteristics in all popular solvent and binder systems. Applications include **Paint and powder applications** include **solvent, water or thermoplastic** based enamels, and **metal primer** formulations.

TYPICAL SPECIFICATIONS

		SYIC-c	SYIC-h
Active Ingredients	% Minimum	99	99
Zinc Sulfide Content	% Minimum	28	58
Zinc Oxide	% Maximum	5	5
Volatile at 105°C	% Maximum	0.5	0.5
Water Soluble Salts	% Maximum	0.5	0.5
pH value	Median	6.2 – 7.8	6.2 – 7.8
Electrical Conductivity in Mohs	Median	1.0	1.0
Zeta Potential in mV of 25% DI Water slurry at 7pH	MV	-15	-13
Iso-Electric Point pH value of 5% aqueous extract solution	Typical	3	3
Density in grams/cc @25°C	Nominal	4.0 – 4.5	4.0 – 4.5
Heat Stability in °F/°C	Nominal	1,832/1000	1,832/1000
Particle Diameter Mass distribution in microns	Nominal	1.0 – 2.0	1.0 – 2.0
325 Mesh Residue [44 microns]	% Maximum	0.1	0.1
Oil Absorption in g/100g	Maximum	12.5	12.5
Hiding Power in square feet/lb	Feet ² /Lb	46.5	81.5
Refractive Index- Non-Polarized @ 550nm	Median	2.00	2.16
Mohs Hardness	Median	3	3
Heavy Metals (Pb, Cd, Hg, Cr) in PPM	Maximum	50	50

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