

MATERIAL SAFETY DATA SHEET

Section 1 - Material Identity

Product Trade Name(s): PoleStar 400

Name(s):

Common Name(s): Calcined Kaolin Clay , Calcined China Clay

Chemical Name: Anhydrous Aluminum Silicate

CAS Number: 66402-68-4 (In TSCA Inventory)

Physical Form: White Powder

HMIS Ratings

Health Hazard	1
Flammability Hazard	0
Reactivity Hazard	0
Max. Personal Protection	E

Manufacturer's Name & Address: IMERYS Pigments & Additives Group, 100

20/01/04

Section 2 - Ingredients and Hazards

Ingredient	Wt. % (Approx.)	CAS No.	OSHA PEL*	ACGIH TLV*
Calcined Kaolin - Al(subscript: 2)Si (subscript: 2)O (subscript: 7)	> 99%	66402-68-4 (superscript : 3) 15 mg/m (superscript : 3) Total	5 mg/m (superscript : 3) Resp. --	2 mg/m (superscript : 3) Resp.
Water	< 1%			

* Unless otherwise noted, all PEL and TLV values are reported as 8 hour time weighted averages (TWA).

Section 3 - Hazards Identification and Cautions

Appearance: White Powder

Primary Routes of Entry: Skin contact, skin absorption, eye contact,
ingestion: Hazard Classification - None. (Historical
basis for
classification.)

Target Organs: Eye, skin and lungs

Medical Conditions Aggravated by Exposure: Skin contact may aggravate
existing dermatitis. Breathing excessive quantities of dust may aggravate
pre-existing respiratory conditions.

Potential Health Effects:

Eye Contact: This product may produce irritation upon contact with the
eye. See also Section 4 below.

Skin Contact: Prolonged or repeated exposure may cause skin irritation.
Material is not expected to be absorbed through the skin in harmful amounts
or to produce an allergic skin reaction. See also Section 4 below.

Ingestion: No adverse effect is expected. If ingested, seek medical
advice. See also Section 4 below.

Inhalation: The raw material for calcined kaolin is "kaolin," CAS No.
1332-58-7. Inhalation of excessive quantities of kaolin dust may irritate
the respiratory tract. Prolonged exposure to respirable kaolin dust
without use of appropriate respiratory equipment could adversely affect

respiratory function including fibrogenic response. See Am. Rev. Respir. Dis. 1983; 127:215-220; 231-253; 141-142; Doc. Thres. Limit Values and Bio. Exp. Ind., Sixth Edition, 1991: OSHA PEL-29 C.F.R. 1910.1000. Subchronic, Chronic: None expected. No applicable information was found concerning any potential health effects resulting from subchronic or chronic exposure to kaolin.

No crystalline silica detected using the recommended NIOSH test method 7500.

Section 4 - First Aid Measures

Eye Contact: Follow good industrial hygiene practices. In case of contact, immediately flush eyes with plenty of water. Seek medical aid if necessary.

Skin Contact: Follow good industrial hygiene practices. Wash affected skin areas thoroughly with soap and water. Seek medical aid if necessary.

Inhalation: Follow good industrial hygiene practices. If excessive exposure by inhalation is suspected, remove to fresh air. If necessary, a MSHA/NIOSH or OSHA/NIOSH approved respirator is recommended. Seek medical aid if necessary.

Ingestion: Follow good industrial hygiene practices. If ingested, do not induce vomiting. If conscious, drink two glasses of water. Seek medical aid if necessary.

Section 5 - Fire Fighting Measures

Explosion Data: Not Explosive **Flammability:** Not Flammable or Combustible

LEL: Not Applicable **Flash Point:** Not Applicable

UEL: Not Applicable **Auto-Ignition:** Not Applicable

Extinguishing Media: Product will not burn.

NFPA 704M Hazard Classification: Health: 1 Flammable: 0
Reactivity: 0

Use appropriate extinguishing media for packaging material if applicable.

Section 6 - Accidental Release Measures

Vacuum, pump or scoop spilled material into containers for reclaiming or disposal. Use proper respiratory and personal protective equipment.

MSHA/NIOSH or OSHA/NIOSH approved respirator recommended. Spilled materials may cause slippery conditions when wet. Care should be exercised when walking on spills on floors or concrete pads. No neutralizing chemicals required. Material is inert and nonreactive. Kaolin is not a CERCLA listed hazardous substance.

Section 7 - Handling and Storage

Storage in a cool, dry location is recommended.

Spilled materials may cause slippery conditions when wet. Care should be exercised when walking on spills on floors or concrete

pads.

Minimize dust generation & accumulation.

If excessive dust is generated, provide adequate ventilation and use proper respiratory and personal protective equipment.

MSHA/NIOSH or OSHA/NIOSH approved respirator recommended

Section 8 - Exposure Control/Personal Protection

OSHA Permissible Exposure Limits or ACGIH Threshold Limit Values have not been established for CAS # 66402-68-4. The raw material for calcined kaolin is "Kaolin", CAS No. 1332-58-7. MSHA/OSHA and ACGIH values for "Kaolin" are as follows:

Hazardous Ingredient	Weight % (Approx.)	CAS No.	MSHA PEL	OSHA PEL	ACGIH TLV
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1332-58-7	Total	10mg/cu.m.	15mg/cu.m.	2 mg/cu.m.	
	Resp.	5 mg/cu.m.			

Unless otherwise noted, all PEL and TLV values are reported as 8 hour time weighted averages (TWA).

Respiratory Protection: If respirator is required, use of a MSHA/NIOSH or OSHA/NIOSH approved respirator is recommended.

Ventilation: Use exhaust ventilation, if required, to maintain dust concentration below recommended exposure limits.

Protective Equipment: Wear side shield safety glasses. Rubber gloves are recommended for prolonged exposure.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Boiling Point: Not Applicable

Appearance & Odor: Odorless, white powder
Freezing Point: Not Applicable
Vapor Pressure: Not Applicable
pH (Aqueous Suspension): 4.0 - 8.0
Vapor Density: Not Applicable
~2.7
VOC: None
Specific Gravity: Insoluble
Evaporation Rate: Not Applicable
Not Determined, >
% Solubility in Water: 1500°C
Melting Point:

Section 10 - Stability and Reactivity

Chemically Stable? Yes No Inert and nonreactive.
Compatible with Other Substances? Yes No Inert and nonreactive.

Hazardous Decomposition/By-Products: No hazardous decomposition or by-products expected. Inert and nonreactive.

Conditions Contributing to Hazardous Polymerization: None, inert and nonreactive.

Section 11 - Disposal Considerations

EPA Waste Number: Under RCRA (40 CFR 261) kaolin is a non-hazardous waste. Dispose of waste material in accordance with all local, state and federal requirements.

Section 12 - Toxicological Information

Calcined Kaolin - The raw material for calcined kaolin is "kaolin," CAS No. 1332-58-7.

Primary Route of Exposure: Skin; Eye Contact; Inhalation; Ingestion

Acute Health Hazards:

Eye contact may cause mechanical irritation if exposed to excessive amounts of kaolin.

Skin contact may aggravate existing dermatitis.

Inhalation from prolonged and continuous exposure to excessive quantities of dust may aggravate existing asthmatic or respiratory conditions.

No adverse effect expected when ingested.

Chronic Health Hazards:

Prolonged inhalation of excessive levels of kaolin dust may cause a simple pneumoconiotic condition, not normally associated with a decrement in lung function. In cases of long term exposure to extremely high levels of dust, complicated pneumoconiosis with lung function impairment may occur.

Carcinogenicity: NTP? IARC? No OSHA? No
No

Teratogenicity: None Reproductive Effects:
Mutagenicity: None known known None known

Section 13 - Transport Information

EPA Waste Number: Not Regulated
DOT Classification: Not Regulated DOT/IMO Classification: Not
Regulated
Internal UN: Not Regulated

Section 14 - Regulatory Information

FDA: The raw material for Calcined Kaolin is "Kaolin", CAS No. 1332-58-7. Kaolin is as generally recognized as safe (GRAS) under the FDA in accordance with 21 CFR 186.1256. Additionally, kaolin is established as a component of the uncoated or coated food-contact surface of paper and paperboard in accordance with 21 CFR 176.170 (aqueous and fatty foods) and 21 CFR 176.180 (dry foods).

SARA Title III Section 302 Extremely Hazardous Substances: This product does not contain extremely hazardous substances subject to the reporting requirements of Section 302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 355.

SARA Title III Section 311 and 312 Health and Physical Hazard Categories
per
40
CFR
370.2:

Immediate	Delayed	Fire	Pressure	Reactivity
Yes	Yes	No	No	No

SARA Section 313 Notification: This product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

TSCA: Product is listed in Initial Inventory, Vol. 1, Appendix A, CAS No. 66402-68-4.

The International Agency for Research on Cancer has concluded that

"crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group I)." It also noted that carcinogenicity was not detected in all industrial circumstance studies, and may be dependent on external factors affecting its biological activity or distribution of its polymorphs. (See IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68 (1997).) Exposure to respirable silica has also been associated with silicosis, scleroderma, and nephrotoxicity. (See Occupational Lung Disorders, Third Edition, Chapter 12 (1994) and American Journal of Respiratory and Critical Care Medicine, Volume 155, pp 761-765 (1997).) Using recommended NIOSH test method 7500, no crystalline silica was detected.

WARNING: This product may also contain extremely small amounts of one or more naturally-occurring materials known to the State of California to cause cancer, birth defects, or other reproductive harm.

While this information and recommendations set forth herein are believed to be accurate as of the date hereof, IMERYS PIGMENTS & ADDITIVES GROUP MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

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