MATERIAL SAFETY DATA SHEET

ANSI Z400.1 MSDS Standard format. May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200 Standard must be consulted for specific requirements.

Date Of Revision: June 13, 2000,
Prepared By: The Safety, Health & Environmental Dept
M & M Clays, Inc.

ANHYDROUS KAOLIN CLAY

QUICK IDENTIFIER

Tradenames: GK-300, GK-300P, GK-500, GK-IB, GK-IC, GK-OW, GK-OWMX, GK-OWP

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: GK-300, GK-300P, GK-500, GK-IB, GK-IC, GK-OW, GK-OWMX, GK-OWP,
Synonyms: Calcined kaolin, Anhydrous kaolin clay
Product use: Mineral pigment

Manufacture For:
M & M Clays, Inc., 159 Railroad St., PO Box 119, Mcintyre, GA 31054, USA
Safety, Health & Environmental Manager- Daytime Phone: 912-946-5533

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Component(s) (chemical & common name(s))	CAS Registry No.	% (Approx.
Anhydrous aluminum silicate (Calcined kaolin)	66402-68-4	

Exposure Limits - See Section

SECTION 3 - HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS
Short-Term (acute):

Eye Contact: Direct contact with dust may cause irritation by mechanical abrasion

Skin Contact: Direct contact may cause irritation by mechanical abrasion

Inhalation: Dusts may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate limits.

Ingestion: Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation and blockage.

POTENTIAL HEALTH EFFECTS
Long-Term (chronic):

Calcined kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).

Prolonged and repeated inhalation of respirable dust in excess of appropriate exposure limits has caused pneumoconiosis, a lung disease. Not all individuals with pneumoconiosis will exhibit symptoms (signs) of the disease. However, pneumoconiosis can be progressive and symptoms can appear at any time, even years after the exposure has ceased. Symptoms of pneumoconiosis may include but are not limited to the following: shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume.

SECTION 4 - FIRST AID MEASURES

MARKETED BY
HARWICK STANDARD
DISTRIBUTION CORPORATION
60 S. Seiberling Street • Akron, Ohio 44305

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Skin: Wash with soap and water Contact a physician if irritation persists or later develops

SECTION 4 - FIRST AID MEASURES (continued)

Ingestion: If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit. Get immediate medical attention.

Inhalation: Remove to fresh air. Dust in the throat and nasal passages should clear spontaneously Contact a physician if irritation persists or later develops.

SECTION 5 - FIRE FIGHTING MEASURES

Physical Hazard: Non-combustible

Flashpoint: Not flammable

Extinguishing Agents: None required

Unusual Fire And Explosion Hazards: None known

Flammable Limits In Air: Not flammable

Autoignition Temperature: Not flammable

Explosion Data: Non-explosive

Sensitivity to Static Discharge: Not applicable

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Care should be taken to avoid dusting while sweeping up spilled product. Cleanup personnel should use appropriate NIOSH/MSHA approved respirators if exposures are expected above the limits listed in Section 8. Water should be used with great care as it creates a slipping hazard when mixed with this product. This product is generally non-toxic to aquatic systems but may cause high turbidity in stormwater.

No components in this product are subject to the reporting requirements of Title III of SARA, 1986, and 40 CFR 372.

SECTION 7 - HANDLING AND STORAGE

Handling: Appropriate personal protection should be used when handling (refer to Section 8).
Use care when dispensing to avoid dust generation. Fold and flatten empty bags carefully to reduce dust generation.
Wash hands thoroughly after handling.

Storage: Best if kept under dry conditions Not generally affected by hot or cold storage

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

No exposure limits have been published for calcined kaolin products. We recommend using the limits published for

Exposure Limits	Value		Limit	Reference
Kaolin 1332-58-7	2 mg/m³	(Respirable dust)	TWA (8 hour)	ACGIH TLV-A4*
	15 mg/m³	(Total dust)	TWA (8 hour)	OSHA PEL
	5 mg/m³	(Respirable dust)	TWA (8 hour)	OSHA PEL
	10 mg/m³	(Total dust)	TWA (10 hour)	NIOSH REL
	5 mg/m³	(Respirable dust)	TWA (10 hour)	NIOSH REL

Notes- (-A4) This indicates that kaolin is " Not Classifiable as a Human Carcinogen" by ACGIH

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Engineering Controls: Respirable dust levels should be monitored regularly. Dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee work stations.

Respiratory Protection: For respirable dust levels that exceed or are likely to exceed and 8hr-TWA of 2 mg/m³, a NIOSH/MSHA approved HEPA filter respirator must be worn. Respirator use must comply with applicable MSHA or OSHA standards which include provisions for a user training program, respirator repair and cleaning, respirator fit testing and other requirements.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	N/A (Solid)	Specific Gravity (H_2O=1):	2.2- 2.6 depending on product
Vapor Pressure (mm Hg):	No Vapor	Melting Point:	>1700° C
Vapor Density (Air=1):	No Vapor	Appearance and Odor:	Off-white dry powder
Solubility in Water:	Insoluble	pH in Water (20% solids suspension):	4.0- 6.3

SECTION 10 - STABILITY AND REACTIVITY

Stability: This product is stable under normal storage conditions

Hazardous Polymerization: Will not occur under normal conditions

Incompatibility With Other Materials: None known

Hazardous Decomposition Products: None known

SECTION 11 - TOXICOLOGICAL Information

Calcined kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). The American Conference of Governmental Industrial Hygienists (ACGIH) lists kaolin as- Not Classifiable as a Human Carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Information: No adverse ecological effects are expected May affect turbidity of water if discharged in large quantities to lakes or streams.

SECTION 13 - DISPOSAL CONSIDERATIONS

Pickup and reuse clean materials, avoiding dusting situations. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations. This product is not hazardous as a waste. Check with local landfills before disposing in trash. Dispose of in closed containers to avoid dusting.

SECTION 14 - TRANSPORTATION INFORMATION

DOT Hazard Classification: None

Placard Required: None

Label Required: Use original label including all warnings. When disposing of this material in its pure form use a DOT " Non-Hazardous Waste" label.

SECTION 15 - REGULATORY INFORMATION

This product contains the following non-hazardous components
No non-hazardous components exist.

U.S. Federal Regulations

OSHA: This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SARA Section 311/312 Hazard Classifications- Delayed (chronic)

SARA Section 313: This product contains no substances 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: This product or its components are listed in or exempt from the TSCA inventory requirements This product contains no substances subject to export notification under Section 12(b) of TSCA.

State Regulations

Several states specifically list kaolin and regulate dust exposure For the most current regulatory information

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SECTION 16 - OTHER INFORMATION

Calcined kaolin is a man-made product with the following chemical formula - $Al_2Si_2O_7$

Hazard Communication or "Right-to-know" information-

Hazardous Materials Identification System (HMIS) Ratings:

Health = 0*	Potential chronic effects
Reactivity = 0	Non-reactive
Flammability = 0	Non-flammable
Personal Protection Equipment = E**	

*Prolonged breathing of excessive dust may adversely affect lung function.
**Use NIOSH approved dust mask for dusty conditions.

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200)