

# MATERIAL SAFETY DATA SHEET

## SECTION I PRODUCER & PRODUCT IDENTITY

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Name of Preparer: L. J. Carter  
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Trade Name: GK-990, GK-995, GK-997 KAOLIN CAS #: 1332-58-7

Chemical Name: Hydrous Aluminum Silicate

## SECTION II HAZARDOUS INGREDIENTS / IDENTITY INFORMATION\*\*AL2O3, 2SiO2, 2H2O

Hazardous Components (Specific Chemical Identity: Common Names)

TiO2	Titanium Dioxide	Typically less than 2.0 %	CAS # 13463-67-7
SiO2	Free Silica ( Quartz )*	Typically less than 1.0 %	CAS # 14808-60-7

\*NOTE: Kaolin contains crystalline silica. A small fraction can be considered respirable.

## SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

**NOTE:** Both dry and aqueous forms of kaolin are produced. Aqueous slurry is composed of 70% kaolin, 30% water, and 0.25% of sodium silicate. The information presented here is characteristic of the dry form.

Boiling Point:	Solid	Specific Gravity (H2O = 1):	2.62
Vapor Pressure (mm Hg):	Solid	Melting Point:	Unknown
Vapor Density (Air =1)	No Vapor	pH	3.5 - 7.5
Solubility in Water:	Yes	Appearance and Odor:	White to Cream - no odor

## SECTION IV FIRE AND HAZARD DATA

Non-Explosive and Non-Flammable

## SECTION V REACTIVITY DATA

Stability:	Stable	Incompatibility (Materials to Avoid)	Not Reactive
Hazardous Decomposition or Byproduct:	None	Hazardous Polymerization:	Will Not Occur

At elevated temperatures, the crystalline structure of free silica can change to more hazardous forms.

## SECTION VI HEALTH HAZARD DATA

ROUTES OF ENTRY: Inhalation? Yes Skin? No Ingestion? No Hazard

HEALTH HAZARDS ( ACUTE AND CHRONIC )

Excessive or prolonged inhalation of dust may result in harm or injury to the respiratory system. WARNING: Kaolin contains crystalline silica which may cause delayed disease (silicosis) if inhaled over an extended period of time. Minimize breathing of kaolin dust. Use MSHA/OSHA/NIOSH approved respirators where TLV for crystalline silica may be exceeded.

EXPOSURE LIMITS: NIOSH TWA: Respirable Crystalline Quartz = 0.05 mg/cubic meter  
ACGIH TLV : Respirable Crystalline Quartz(TWA-TLV) = 0.1 mg/cubic m / Kaolinite 10 mg/cubic m  
OSHA PEL: Respirable Crystalline Quartz (TWA-TLV) =0.1 mg/cubic m / 5 mg /cubic m

NOTE: The NPT (1991) has added crystalline silica to its list of substances that are "reasonably anticipated to be carcinogens". IARC (Monograph - Vol. 68 - 1997) has concluded that there is sufficient evidence that inhaled crystalline silica can cause cancer in humans. The classification is Group 1. In addition, the inhalation of titanium dioxide may cause damage to the respiratory system. It has been identified as a potential carcinogen by NIOSH. The OSHA PEL for TiO2 is 15mg / cubic meter.

SIGNS AND SYMPTOMS OF EXPOSURE:

Symptoms of excessive exposure include shortness of breath and reduction of pulmonary function. This inert material

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has no potential acute toxic hazard.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

Individuals with respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation should be precluded from exposure.

**EMERGENCY AND FIRST AID PROCEDURES:**

Eyes - Flush with water. Gross inhalation - Remove to fresh air. Give oxygen with artificial respiration as needed. Seek medical attention for treatment, observation and support as needed.

SODIUM SILICATE used in the slurry form contains Silicic acid, sodium salt and water and it's TSCA CAS REGISTRY NO. is 1344-09-8, 7732-18-5. It can cause eye, skin, respiratory, and internal irritation at 100% concentrations. It is non-toxic and non-carcinogenic. It is used in the slurry form at 0.25% concentration.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

If uncontaminated - Collect, using dustless method ( water or vacuum ).

If contaminated - Use appropriate method in light of nature of contamination in accordance with Federal, State, and Local laws.

**WASTE DISPOSAL METHOD:**

If uncontaminated - Dispose as an inert, nonmetallic mineral.

If contaminated - Use appropriate method in light of contamination in accordance with Federal, State, and Local laws.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

Avoid creation of respirable dust. Wear approved respirators. When wet, product is slippery.

**OTHER PRECAUTIONS:**

Use adequate ventilation and dust collection. Do not permit dust to accumulate in work area. Maintain and use proper and clean respiratory equipment. Clean clothing which has become dusty. Warn and train your employees and warn your customers ( in the event of resale ) in accordance with all applicable Federal and State "Right to Know " laws and regulations. California Prop. 65 lists crystalline silica as a carcinogen.

**SECTION VIII - CONTROL MEASURES**

**RESPIRATORY PROTECTION (SPECIFY TYPE):**

Use OSHA/MSHA/NIOSH approved respirator if operating conditions cause heavy dusting.

VENTILATION: Local Exhaust: To meet PEL requirements Special: No  
Mechanical (Gen) To meet PEL requirements Other: No

PROTECTIVE GLOVES: Recommended EYE PROTECTION: Recommended

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

As appropriate in light of specific application.

WORK / HYGENIC PRACTICES: Avoid creating and breathing dust.

This MSDS complies with OSHA's 29 CFR 1910-1200 and Bill No. 70 WHMIS Hazard Communication Standards.

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