Date Prepared: 04-Nov-2013

Revised: 20-Oct-2021 SDS ID: LNG_GHS_001



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product trade name(s): Kaolex FG, Suprex, Ewing, Windsor, Barden, Barden AG-1, Paragon, Alumex,

Barden R, Aurora B, Ruby Windsor, Aiken R, Kaolex SC, Barnet, Barden LGB, Bontex Windsor, Barden H, M-81, Hamilton, Afton R, Kaolex BN, KT90A-1, Allen, Allen G, Diamond, Franklin, Kingsley, Kingsley/Rogers, KT-Cast, Mercer C,

#6 Tile, Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

Common Name(s): Kaolinitic Clay, Kaolin, China Clay, Hydrous Aluminum Silicate

Chemical Formula: $Al_2Si_2O_5(OH)_4$ CAS Number: 1332-58-7

Physical Form: Light gray to white solid

Recommended Uses: Non-exhaustive list: Ceramics, ceramic glazes, refractories, fiberglass

compositions, industrial filler/extender, paper, plastics, CASE, pesticides,

sorbents, catalysts supports, furnace additives

Restrictions on Use: Food ingredient, cosmetic ingredient **Manufacturer's Name:** Kentucky-Tennessee Clay Company

Address: 100 Mansell Court East Telephone: 770-594-0660

Suite 300 **Fax**: 770-645-3460 Roswell, GA 30076 **Customer Service**: 800-814-4538

Emergency Telephone: For Chemical Emergency Call CHEMTREC (24 hours): 1-800-424-9300

(US, Canada, Puerto Rico, Virgin Islands

1-703-527-3887 (Outside Above Area) collect calls accepted

SECTION 2: HAZARDS IDENTIFICATION

Contains Crystalline Silica

Classification: Eye Damage/Irritation Category 2

Skin Corrosion/Irritation Category 2

Specific Target Organ Toxicity – Single Exposure Category 3 – Respiratory

Specific Target Organ Toxicity – Repeated Exposure Category 1 – Respiratory

Label Elements:



Signal Word: DANGER

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Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

Hazard Statements: H372: Causes damage to lung through prolonged or repeated inhalation.

Precautionary Statements: P260: Do not breathe dust.

P285: In case of inadequate ventilation wear respiratory protection.

P501: Dispose of contents/containers in accordance with local regulation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Weight % (Approx.)	CAS N°	EINECS N°
Kaolin	60% - 100%	1332-58-7	310-194-1
Quartz - Crystalline Silica	0.1% - 2%	14808-60-7	238-878-4
Titanium Dioxide	1% - 5%	13463-67-7	136-675-5
Water	1% - 20%	7732-18-5	215-185-5

SECTION 4: FIRST AID MEASURES

Inhalation

If adverse effects occur, get immediate medical attention. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin

Wash immediately with soap and water. Get medical attention if irritation develops or persists.

Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion

DO NOT induce vomiting. If swallowed, drink plenty of water, DO NOT induce vomiting. Never make an unconscious person vomit or drink fluids. Get medical attention.

Symptoms: Immediate

Eye irritation, skin irritation, respiratory tract irritation

Symptoms: Delayed

Gastrointestinal effects

SECTION 5: FIREFIGHTING MEASURES

Flammable Properties Product is non-flammable. Use extinguishing agents appropriate for surrounding

fire.

Unsuitable Extinguishing Media None known
Protective Equipment and Precautions for Firefighters

Use protective equipment appropriate for surrounding materials.

Fire Fighting Measures No hazard expected

NFPA 704M Hazard Classification Health: 2 Flammable: 0 Reactivity: 0

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions

Keep unnecessary people away, isolate hazard areas and deny entry. Wet material is slippery under foot. Wear personal protective clothing and equipment, see Section 8.

Environmental Precautions

Avoid release to the environment.

Cleanup Methods

Collect spilled material in appropriate container for reuse or disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid dust generation and accumulation. Do not use in poorly ventilated or confined spaces. Do not taste or swallow. Avoid inhalation or contact. Wash thoroughly after handling.

Conditions for Safe Storage

Store in a cool, dry place. Store in a well-ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Follow standard occupational hygiene control methods and procedures. Use an approved respirator if exposure limits are exceeded or if irritation develops or persists.

Component Exposure Limits:

Hazardous Ingredient	CAS N°	OSHA PEL	ACGIH TLV	NIOSH REL
Weight % (Approx.)				
Kaolin	1332-58-7	15 mg/m ³	2 mg/m ³	10 mg/m ³
60 – 100 %		(total dust)	(respirable dust)	(total dust)
		5 mg/m ³		5 mg/m ³
		(respirable dust)		(respirable dust)
Quartz - Crystalline Silica	14808-60-7	0.05 mg/m ³	0.025 mg/m ³	0.05 mg/m ³
0.1 – 2 %		(respirable dust)	(respirable dust)	(respirable dust)
Titanium Dioxide	13463-67-7	15 mg/m ³	10 mg/m ³	
(Naturally Occurring)		(total dust)	(total dust)	
1-5%				

^{*} Unless otherwise noted, all PEL and TLV are reported as 8 hour time weighted average (TWA).

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Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

Component Analysis

There are no biological limit values for any of this product's components.

Engineering Controls

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

exposure limits.

Personal Protective Equipment

Respiratory Protection: Where there is potential for airborne exposure, use of a MSHA/NIOSH or

OSHA/NIOSH approved respirator is recommended.

Eyes/Face: Wear side shield safety glasses or chemical resistant safety goggles. **Glove Recommendation**: Rubber gloves are recommended for prolonged exposure.

Protective Clothing: Wear appropriate chemical resistant clothing. Contaminated clothing should be

removed and laundered before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solidAppearance: white to gray solidColor: white to grayPhysical Form: powder to lumpOdor: earthy odorOdor Threshold: not applicable

pH: 4-6 (aqueous solution)

Melting Point: > 1500°C

Boiling Point: not applicable

Flash Point: will not ignite

Decomposition: loses crystalline water at > 500°C (930°F) **Evaporation Rate**: not applicable

LEL: Not applicable

Vapor Pressure: not applicable

Density: Not applicable
Water Solubility: none
Auto Ignition: will not ignite

Flow Point: not applicable

VOC: none

UEL: not applicable
Vapor Density (air = 1): not applicable

Specific Gravity (water = 1): ~2.6 gm/cc
Coeff> Water/Oil Dist: not applicable

Viscosity: not applicable

Sublimation Point: not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity No reactive hazard is expected.

Chemical Stability Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions Will not oxidize or polymerize.

Conditions to avoid None known.

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Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

Materials to Avoid (Incompatibilities)

None known.

Decomposition ProductsWhen exposed to high temperatures, free quartz can change

crystal structure to form tridymite (above 870 °C or cristobalite (above 1470 °C) which have greater health hazards than quartz.

(Tridymite and cristobalite (TWA-TLV) = 0.025 mg/m^3)

SECTION 11: TOXICOLOGICAL INFORMATION

Primary Route of Exposure – Skin, Eye Contact, Inhalation, and Ingestion

Acute Health Hazards

Eye contact may cause mechanical irritation.

Skin contact may aggravate existing dermatitis.

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

Acute and Chronic Toxicity

May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation. May cause damage to respiratory tract through prolonged or repeated exposure.

Occupationally inhaled kaolin produced pulmonary fibrosis with sites of action being the lung, the lymph nodes and the hilus. Kaolin when taken orally over a long period of time can cause granulomas of the stomach.

Exposure to quartz (the most stable and common form of crystalline silica) is responsible for the majority of clinically diagnosed silicosis. Silicosis is a fibronodular lung disease that occurs after occupational exposure to crystalline silica for 5 years or longer. Inhalation of quartz dusts may cause shortness of breath, limitation of chest expansion, dry cough, and a lessened capacity for work. Individuals with a pre-existing disease in, or a history of ailments involving the skin or respiratory tract, are at greater risk for developing adverse health effects when exposed to this material.

In humans, chronic intermittent exposure to quartz caused pulmonary fibrosis, cough, and difficulty breathing. Overexposure to crystalline silica may cause silicosis, a form of disabling, progressive, and sometimes fatal pulmonary fibrosis characterized by the presence of typical nodulation in the lungs. Tuberculosis frequently complicates silicosis and the risk for tuberculosis is also increased in workers exposed to silica who have no radiographic evidence of silicosis. Crystalline silica can cause silicotic lesions in such organs as the liver, spleen and bone marrow. In humans, a causal relationship exists between exposure to crystalline silica and the development of autoimmune diseases. In multi-dose studies with animals, long term inhalation of quartz affected the lungs, endocrine system, immune system and blood.

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This product contains quartz (respirable) as an impurity. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68, IARC, Lyon, France.)

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Quartz - Crystalline Silica (14808-60-7) Oral LD50 Rat 500 mg/kg

Titanium dioxide (13463-67-7) Oral LD50 >10000 mg/kg

Water (7732-18-5) Oral LD50 Rat >90 mL/kg

Irritation/Corrosivity Data

May cause eye irritation, skin irritation, respiratory tract

irritation, and gastrointestinal tract irritation.

Respiratory SensitizerNo test data available

Dermal SensitizerNo test data available

Carcinogenicity

Component Carcinogenicity

Kaolin - CAS N° 1332-58-7

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Quartz - Crystalline Silica - CAS N° 14808-60-7

ACGIH: A2 - Suspected Human Carcinogen IARC: Group 1 - Carcinogenic to humans

Titanium dioxide - CAS N° 13463-67-7

ACGIH: A4 - Not Classifiable as a Human Carcinogen **IARC**: Group 2B - Possibly carcinogenic to humans

Mutagenic Data

No information available

Reproductive Effects Data

No information available

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Specific Organ Toxicity - Single ExposureTarget organs include ears, skin, respiratory system, and

gastrointestinal tract.

Specific Organ Toxicity - Repeated Exposure Causes damage to eyes, skin, respiratory system, and

gastrointestinal tract through prolonged or repeated exposure.

Aspiration Hazard No data available

Medical Conditions Aggravated by Exposure

Individuals with pre-existing eye disorders, skin disorders, respiratory disorders and/or gastrointestinal disorders may have

increased susceptibility to the effects of exposure.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available for the product.

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's

components. No information available for the product.

Bioaccumulation No information available for the product.

BioconcentrationThis material is not believed to bioconcentrate.

Biodegradation This product is made from a naturally occurring, abundant,

innocuous mineral.

Persistence This product is made from a naturally occurring, abundant,

innocuous mineral.

Mobility in Soil This product is insoluble in water.

Results of PBT and vPvB Assessment Not relevant

Other Toxicity May affect turbidity if discharged in large quantities to lakes,

streams or sewers.

SECTION 13: DISPOSAL CONSIDERATIONS

Non-hazardous waste - RCRA (40 CFR 261)

Dispose of waste materials in accordance with all local, state, and Federal requirements. This product may not be disposed of in waterways or sewers.

SECTION 14: TRANSPORT INFORMATION

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Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

EPA Waste Number: Not regulated **DOT Classification**: Not regulated

IMO Classification: Not regulated

Internal UN: Not regulated

IMDG Code: This product is not considered to be a marine pollutant.

SECTION 15: REGULATORY INFORMATION

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. 1332-58-7

FDA: Kaolin is 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 CFR 176.180 (dry foods).

CERCLA: Kaolin is not a CERCLA listed hazardous substance.

California Proposition 65:



WARNING: This product can expose you to chemicals, including crystalline silica, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

NJ Special Health Hazardous Substances List [4]: RTK Hazardous Substance List; Substance number 4016.

PA Special Hazardous Substances List: Regulated under PA Code Chapter 323.

Stockholm Convention: This product is not subject to the Stockholm Convention.

Montreal Protocol: This product is not subject to the Montreal Protocol.

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Rotterdam Convention: This product is not subject to the Rotterdam Convention.

National Inventories:

DSL (Canada): Listed
PICCS (Philippines): Listed
ENCS (MITI) (Japan): Listed
AICS (Australia): Listed
ECSC (China): Listed
EINECS (Europe): Listed

REACh Status: Exempt (Annex v.7). Product is a naturally occurring mineral.

SECTION 16: OTHER INFORMATION

ACA HMIS Health rating 1

ACA HMIS Physical hazard rating 0

ACA HMIS Personal protection rating E

ACA HMIS Flammability rating 0



Training

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Key / Legend

ACGIH American Conference of Governmental Industrial Hygienists

AICS Australian Inventory of Chemical Substances

CAS Chemical Abstract Service

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CFR Code of Federal Regulations

CHEMTREC Chemical Transportation Emergency Center

DOT Department of Transportation

DSL Canadian Domestic Substances List

EINECS European Inventory of New and Existing Chemical Substances

ENCS Existing and New Substances Inventory
EPA Environmental Protection Agency

FDA Food and Drug Administration

HMIS Hazardous Materials Identification System

IARC International Agency for Research on Cancer

IECSC Inventory of Existing Chemical Substances Produced or Imported in China

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Optikast, PAF, Rogers, Samson, Stucco Boost, Supreme, Wilson

IMDG International Maritime Dangerous Goods Code

IMO International Maritime OrganizationKECI Korean Existing Chemicals Inventory

LEL Lower Explosive Limit

LOLI List of Lists

MITI Japanese Ministry of international Trade and Industry

MSHA Mine Safety and Health Administration

NDSL Canadian Non-Domestic Substance List

NIOSH National Institute of Occupational Safety and Health

NFPA National Fire Protection Agency

OSHA Occupational Health and Safety Administration
PBT Persistent Bioaccumulative Toxic Chemical

PEL Permissible Exposure Limit

PICCS Philippine Inventory of Chemicals and Chemical Substances

RCRA Resource Conservation and Recovery Act

REACh Registration, Evaluation, Authorization and Restriction of Chemicals

RTK Right to Know

SARA Superfund Amendments and Reauthorization Act

SDS Safety Data Sheet

STOT Specific Target Organ Toxicity

TLV Threshold Limit Value

TSCA Toxic Substances Control Act
TWA Time Weighted Average
UEL Upper Explosive Limit

UN United Nations

VOC Volatile Organic Content

vPvB Very Powerful Very Bioaccumulative

Disclaimer

Such information is to the best of IMERYS knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. IMERYS NORTH AMERICA CERAMICS MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

IMERYS is a business name that includes Imerys North America Ceramics of which Kentucky-Tennessee Clay Company is a member. Registered in the USA. Registered office: 100 Mansell Court East, Suite 300, Roswell, GA 30076.

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Prepared By: Imerys North America Ceramics Technical Group.

END OF SHEET SDS ID: LNG_GHS_001