Safety Data Sheet

Calcined Kaolin (Surface Modified)

Date of First Issue: 6/19/2024
Date of Revision: 12/12/2024

SECTION 1 - IDENTIFICATION, PRODUCT AND COMPANY

1.1 Product Identifier:

Trade Name: BURGESS 5178

Other Name(s): Calcined Kaolin, Anhydrous Aluminum Silicate, China Clay

REACH Status: Substance is exempt in accordance with Annex V.7.

1.2 Relevant identified uses of the substance and uses advised against:

Use of this substance: Used as an extender or filler in rubber and plastic formulations, wire and cable applications, and filled polymers.

Restrictions on Use: This substance is manufactured for industrial use only. This substance is not USP/Food grade.

1.3 Details fo the Supplier of the Safety Data Sheet:

Company: Burgess Pigment, LLC, 525 Beck Boulevard, P.O. Box 349, Sandersville, Georgia 31082 U.S.A.

Telephone: +14785522544

Internet: www.burgesspigment.com

Email: technicalcenter@burgesspigment.com

1.4 Emergency Telephone Number: Burgess Pigment, LLC, +14785522544, Hours of Operation 0800 - 1700 EST or EDT, Important Note: Employees only speak English.

SECTION 2 - HAZARD IDENTIFICATION

2.1 Classification of the Substance: NONE - Not hazardous as defined in 29 CFR 1910.1200 (d)(1)(i), or the Regulation EC 1272/2008 and Directive 67/548/ECC.

2.2 Label Elements: NONE (Not classified as hazardous, no signal word, no pictogram, no hazard statement(s), and no precautionary statement(s) are required).

2.3 Other Hazards:

OSHA Classification: Not classified as hazardous, however, dust exposure limits have been published for Kaolin (see Section 8).

WHMIS Classification: Not classified as hazardous - No crystalline silica (quartz) was detected using XRD.

Suggested PPE: Wear approved respiratory protection if exposure is greater than suggested exposure limits (see Section 8).

California Prop 65 hazardous substances requiring notification: Does not contain substances that require notification.

SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical Name	CAS No.	EINECS No.	REACH Status	Weight %	GHS Hazard Classification
Calcined kaolin	92704-41-1	296-473-8	Exempt	>99	Not classifed as hazardous

Organofunctional groups attached to clay surface	Confidential treating substance is fully reacted and not present in final product	Confidential treating substance is fully reacted and not present in final product	Registered treating substance is fully reacted and not present in final product	<1	Not classified as hazardous

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures:

Inhalation: Move person to fresh air. If exposure symptoms persist, seek medical attention.

Skin Contact: Remove contaminated clothing as necessary to avoid direct contact. Wash off with water, using soap if available.

Eye Contact: Hold eyelids apart and flush with a steady stream of water for several minutes.

Ingestion: Clean mouth with water. Drink water as necessary. If symptoms persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed: No acute and delayed symptoms and effects are observed. None known.

4.3 Indication of any immediate medical attention and special treatment needed: No data available. No specific actions are anticipated.

General Advice: First-aid responders should wear respiratory protection (e.g. dust mask) in dusty areas. If symptoms persist, seek medical attention. Change contaminated clothing.

SECTION 5 - FIRE FIGHTING MEASURES, FIRE OR EXPLOSION HAZARDS

5.1 Extinguishing Media:

Suitable Extinguishing Media: Substance is noncombustible. Use media appropriate for surrounding materials or packaging.

5.2 Special Hazards arising from the Substance:

Hazardous Combustion Products: No hazardous combustion products known for substance. Packaging materials are paper or plastic.

5.3 Advice for Firefighters: The substance is inert and can be slippery when exposed to water. Use caution walking around or handling broken product bags when exposed to water.

Special Protective Measures: In the event of fire, wear self-contained breathing apparatus. Use protective equipment appropriate for surrounding materials or packaging.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid dust formation. Use approved respirators if dust exposure is greater than suggested limits (see Section 8). Water should be used with care as it creates a slipping hazard when mixed with this product.

6.2 Environmental precautions: No special environmental precautions required. This product is generally non-toxic to aquatic systems but may cause high turbidity in storm water.

6.3 Methods and material for containment and cleaning up: Sweep up with shovel, avoid dust generation. Keep in suitable, closed containers for disposal.

6.4 Reference for other sections: Not applicable.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling: Appropriate personal protection should be used when handling (see 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. Do not eat, drink or smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities: Best if kept in dry conditions. Not generally affected by hot or cold storage. Keep unused material in a closed container to avoid contamination and dust exposure. Minimize airborne dust generation and prevent wind dispersal during loading and unloading.

7.3 Specific end use(s): Please refer to your Customer Service, Sales or Distributor Representative for detailed information. Product is considered industry grade material.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 Control Parameters: No exposure limits have been published for Calcined Kaolin products. We recommend using the limits published for Kaolin (CAS No. 1332-58-7, EC No. 310-194-1). Use your local /

national occupational exposure limits for Kaolin or non-specific/nuisance dusts if more stringent than the following

Country	Component	CAS No.	Value Type (Form of Exposure)	Control Parameters	Basis
Germany	Kaolin	1332-58-7	OELV - 8 hour (TWA) Respirable dust	1.5 mg/m3	AGW Limit Value
Belgium, Croatia, Denmark, Finland, Ireland, Italy, Latvia, Portugal, Romania, Spain, Slovakia, UK, USA	Kaolin	1332-58-7	OELV - 8 hour (TWA) Respirable dust, Maximum 8 hour allowable concentration	2 mg/m3	VLA Daily Exposure, NPEL, ACGIH TLV-A4*, IE-OELV (8 hour)
Bulgaria	Kaolin	1332-58-7	OELV - 8 hour (TWA) Respirable dust	3 mg/m3	IE-OELV (8 hour)
Czech Republic, Estonia, Hungary, Lithuania, Sweden	Kaolin	1332-58-7	OELV - 8 hour (TWA) Respirable dust	5 mg/m3	AK Value, NGV Limit Value, IE-OELV (8 hour)
Poland	Kaolin	1332-58-7	OELV - 8 hour (TWA)	6 mg/m3	IE-OELV (8 hour)
Bulgaria	Kaolin	1332-58-7	OELV - 8 hour (TWA) Total Inhalable dust	6 mg/m3	IE-OELV (8 hour)

Belgium, Estonia, France, Germany, Hungary, Lithuania, Sweden, USA	Kaolin	1332-58-7	OELV - 8 or 10 hour (TWA) Total Inhalable dust	10 mg/m3	AGW Limit Value, AK Value, NGV Limit Value, VME, IE-OELV (8 hour), NIOSH REL (10 hour)

Notes- (-A4) This indicates that Kaolin is "Not Classified as a Human Carcinogen" by ACGIH. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit value should be used. NO CRYSTALLINE SILICA (QUARTZ) WAS DETECTED IN THIS PRODUCT USING XRD. NO CRYSTALLINE SILICA WAS DETECTED USING NIOSH METHOD 7500 WHILE MONITORING PRODUCTION.

8.2 Exposure Controls:

Engineering Controls: 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 workstations.

Personal Protective Equipment

Eye / Face Protection: Approved Safety Glasses with side shields.

Hand Protection: Any type of glove that reduces skin contact with the material is acceptable.

Skin / Body Protection: No special clothing required. Use suitable protection considering the work environment and exposure risk.

Respiratory Protection: Use a compliant particulate respirator when dust levels exceed or are likely to exceed regulatory limits. Equipment should conform to the appropriate standard for protection against airborne particulates, such as NIOSH N95 or EN149:2001.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practices. Care should be given to avoid dust generation.

Environmental Exposure Controls: Avoid conditions that would allow wind dispersal.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

a) Physical State: Solid, Powder

b) Color: White / Powder

c) Odor: Earthy / Natural Soil

d) Melting / Freezing Point: >1700^{o}C

e) Boiling Point: No Data Available

f) Flammability: Non-Combustible

g) Lower / Upper Explosive Limits: Does Not Apply to this Solid

h) Flash Point: Does Not Apply to this Solid

i) Autoignition Temperature: Does Not Apply to this Solid

j) Decomposition Temperature: No Data Available

k) pH in Water (20% Solids Suspension): 6.5 - 8.0

l) Kinematic Viscosity: Does Not Apply to this Solid

m) Solubility: Negligible / Insoluble

n) Partition Coefficient n-Octanol/Water: No Data Available

o) Vapor Pressure: 0 mmHg

p) Density / Specific Gravity: (H_20=1): 2.2 - 2.8

q) Relative Vapor Density: Does Not Apply to Solids

r) Particle Characteristics: Micron Size, See Technical Data

9.2 Other Information: This substance is a natural clay that is ground (milled) to micron size particles. This substance is not a nanomaterial or made to nanoform specifications.

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity: Stable under recommended storage conditions. Inert / Not Reactive.

10.2 Chemical Stability: Chemically Stable.

10.3 Possibility of Hazardous Reactions: No Hazardous Reactions.

10.4 Conditions to Avoid: None known. Stable under normal storage, handling, and environmental

conditions.

10.5 Incompatible Materials: None known. This product is stable when used as intended by the Manufacturer.

10.6 Hazardous Decomposition Products: None known. This product is stable in water.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008:

Acute Toxicity: Limited animal studies indicate no hazard, generally regarded as safe by FDA.

Skin Corrosion / Irritation: No data available, generally regarded as safe by FDA.

Serious Eye Damage / Irritation: No data available, generally regarded as safe by FDA.

Respiratory or Skin Sensitization: Limited animal studies indicate no hazard, generally regarded as safe by FDA.

Carcinogenicity: 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.

Germ Cell Mutagenicity: Limited animal studies indicate no hazard.

Reproductive Toxicity: Limited animal studies indicate no hazard.

Specific Target Organ Toxicity (STOT):

Single Exposure: Limited animal studies indicate no hazard.

Repeated Exposure: Inhalation - Human studies indicate that chronic exposure to high levels of Kaolin dust that contains between 1% and 3% crystalline silica may lead to 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.

Aspiration Hazard: Limited animal studies indicate no hazard.

11.2 Information on Other Hazards: No data available.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity: Calcined Kaolin: Toxicity to Fish, no data available. Toxicity to daphnia and other aquatic invertebrates, no data available. Toxicity to algae / aquatic plants, no data available. Toxicity to microorganisms, no data available.

12.2 Persistence and Degradability: No data available. Product is made from a naturally occurring, abundant, innocuous mineral.

12.3 Bioaccumulative Potential: Calcined Kaolin: Partition coefficient: n-octanol/water (POW) < 1 (estimated). This product is not expected to accumulate in biota.

12.4 Mobility in Soil: No data available. This product is insoluble in water.

12.5 Results of PBT and vPvB Assessment: This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties: This product does not contain components considered to have endocrine disrupting properties.

12.7 Other adverse effects: Additional ecological information: Kaolin is a common, abundant mineral found on the earth's surface causing no known adverse effects. Not biodegradable.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Product: Whenever possible pick up and reuse uncontaminated product, avoiding dust generation. Product is not a hazardous waste. Dispose of product according to applicable national and local regulations. Place in closed containers to avoid dust generation.

Packaging: Empty packaging materials are suitable for recycling. Carefully collect and slowly compact packaging to avoid dust generation. Place in closed containers to avoid dust generation. Provide suitable worker protection if dusty conditions persist.

SECTION 14 - TRANSPORTATION INFORMATION

14.1 UN Number or ID Number:

ADR/RID	ADN	IMDG	IATA
Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good

14.2 UN Proper Shipping Name:

ADR/RID	ADN	IMDG	IATA
Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good

14.3 Transport Hazard Class(es):

ADR/RID	ADN	IMDG	IATA
Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good

14.4 Packing Group:

ADR/RID	ADN	IMDG	IATA
Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good	Not regulated as a dangerous good

14.5 Environmental Hazards: Not regulated as a dangerous good.

14.6 Special Precautions for User: Not Applicable.

14.7 Maritime transport in bulk according to IMO Instruments: Not Applicable for the product as supplied.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health, and Environmental Regulations/Legislation specific for the substance or mixture:

U.S. Federal Regulations:

FDA: Kaolin (Aluminum Silicate, China Clay, Clay) is acceptable for several specific uses. See 21 CFR 73, 82, 175, 176, 177, 178, 186, 310, 335, 346, 347 and 872.

SARA Title III (EPCRTKA) Section 302: This product does not contain any extremely hazardous substances subject to the reporting requirements of 40 CFR Part 355.

SARA Title III (EPCRTKA) Section 311/312: This product does not contain any hazardous substances subject to the reporting requirements of 40 CFR Part 370.

SARA Title III (EPCRTKA) Section 313: This product does not contain substances subject to the reporting requirements of 40 CFR Part 372.

TSCA: This product is listed on the TSCA inventory. This product does not contain substances subject to export notification under Section 12(b) of TSCA.

North American Regulations: Several States, Provinces, and Territories specifically list Kaolin and regulate dust exposure.

USA: The following States regulate Kaolin dust exposure: Alaska, Arizona, California, Idaho, Indiana, Massachusetts, Michigan, Minnesota, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, and Washington.

California Prop. 65: No substances requiring notification.

Canada: The following Territories regulate Kaolin dust exposure: Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Quebec, Saskatchewan, and Yukon. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and this MSDS contains al the information required by the Controlled Products Regulations.

WHIMS Classification: Not classified as hazardous (tested, contains no crystalline silica detected by XRD).

Mexico: See National Exposure Limits.

For the most current Regulatory Information: Please contact the appropriate Agencies in the State, Province, or Territory where the product is used.

Chemical Registries: CAS No. 92704-41-1 can be found in the following Registries: IECSC (China), DSL (Canada), ECL (Korea), EINECS (Europe), ENCS (Japan), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA). (AICS) Australia lists Calcined Kaolin under the CAS No. 66402-68-4.

REACH Inventory: EXEMPT

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII):

Not Applicable

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59): Not Applicable

REACH - List of Substances subject to Authorization (Annex XIV): Not Applicable

German Water Classification (WGK): nwg, ID No. 7926.

Regulation (EC) No. 1005/2009 on Substances that deplete the Ozone Layer: Not Applicable

15.2 Chemical Safety Assessment: A Chemical Safety Assessment is not required for this substance.

SECTION 16 - OTHER INFORMATION

Health = *0: (Nuisance Dust - Fine Particulate)

Flammability = 0: (Non Flammable)

Reactivity = 0: (Non Reactive)

Personal Protection = E: (Equipment)

* = CHRONIC HAZARD. Review and abide by suggested Exposure Limits. Monitor work area for potential over-exposure.

E = Use safety glasses, gloves, and appropriate respiratory protection for dusty conditions.

Calcined Kaolin is made from a natural mineral which is heated to remove water. The chemical formula is $Al_2Si_2O_7$. The molecular weight is 222.13 g/mol.

Initial Preparation Date: 19-Jun-2024 Conforms to ANSI Z400.1/Z129.1-2010 Standard, OSHA HCS (2024)

Revision Date: 12-Dec-2024 Updated Section 9 and minor wording changes for clarity

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Disclaimer: This document was prepared using guidance from (EC) No. 1272/2008 and (EC) No. 1907/2006. The information in this Safety Data Sheet relates only to the specific product(s) listed and may not be valid for mixtures or articles created using the product(s). To the best of our knowledge the information is correct and designed to provide guidane for safe handling, use, storage, transportation and disposal, and is not to be considered a warranty or quality specification. Since operating conditions in the Processor's plant are beyond our control, Burgess Pigment, LLC cannot assume responsibility for any risks or liabilities which may result from using the product(s). The Processor is responsible for providing a safe workplace for all

individuals who may be exposed to the product(s).

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