

# China Clay Ultrafine (Calcined Kaolin) ALPHA CHEMICALS PTY LTD

Chemwatch Hazard Alert Code

Issue Date: **15/04/2021** Print Date: **12/05/2021** S.GHS.AUS.EN

Chemwatch: **5014-76** Version No: **5.1.5.1** 

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

# SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier		
Product name	China Clay Ultrafine (Calcined Kaolin)	
Chemical Name	Not Applicable	
Synonyms	kaolin ultrafine china clay; hydrated aluminium silicate	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Used e.g. in general ceramics, pottery, whitewear, sanitary ware, electrical porcelain, general purpose filler, grouting and adhesives.

#### Details of the supplier of the safety data sheet

Registered company name	ALPHA CHEMICALS PTY LTD	
Address	4 ALLEN PLACE WETHERILL PARK NSW 2099 Australia	
Telephone	61 (0)2 9982 4622	
Fax	Not Available	
Website	~	
Email	shane@alphachem.com.au	

# Emergency telephone number

Association / Organisation	ALPHA CHEMICALS PTY LTD
Emergency telephone numbers	61 (0)418 237 771
Other emergency telephone numbers	Not Available

# **SECTION 2 Hazards identification**

# Classification of the substance or mixture

# HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

# ChemWatch Hazard Ratings

	Min	Max
Flammability	0	
Toxicity	1	0 = Minimum
Body Contact	1	1 = Low
Reactivity	0	2 = Moderate
Chronic	3	3 = High 4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Eye Irritation Category 2B, Carcinogenicity Category 1A, Specific target organ toxicity - repeated exposure Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

# Label elements

Hazard pictogram(s)



Signal word

Danger

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#### Hazard statement(s)

H320	Causes eye irritation.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

# Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

#### Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P305+P351+P338	F IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P314	Get medical advice/attention if you feel unwell.	
P337+P313	If eye irritation persists: Get medical advice/attention.	

#### Precautionary statement(s) Storage

P405 Store locked up.

# Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

# **SECTION 3 Composition / information on ingredients**

#### Substances

See section below for composition of Mixtures

#### **Mixtures**

CAS No	%[weight]	Name
Not Available		ball clay Al2Si2O5(OH)4, as
1332-58-7	70	<u>kaolin</u>
Not Available	}30	illite
Not Available	}	(Mg,K)Al2(AlSi3O6)(OH)2
68476-25-5	}	feldspars
Not Available		(K,Na)AlSi3O10
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

## **SECTION 4 First aid measures**

# Description of first aid measures

	occupation of modelines		
Eye Contact	If this product comes in contact with the eyes:  Wash out immediately with fresh running water.  Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  Seek medical attention without delay; if pain persists or recurs seek medical attention.  Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.		
Skin Contact	If skin or hair contact occurs:  Flush skin and hair with running water (and soap if available).  Seek medical attention in event of irritation.		
Inhalation	<ul> <li>If dust is inhaled, remove from contaminated area.</li> <li>Encourage patient to blow nose to ensure clear passage of breathing.</li> <li>If irritation or discomfort persists seek medical attention.</li> </ul>		
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>		

# Indication of any immediate medical attention and special treatment needed

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung.

# **SECTION 5 Firefighting measures**

#### Extinguishing media

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▶ Use extinguishing media suitable for surrounding area.

# Special hazards arising from the substrate or mixture

Fire Incompatibility	None known
Advice for firefighters	

Advice for firefighters	
Fire Fighting	Product is not combustible. No special firefighting procedures required. Use fire fighting procedures suitable for surrounding area.
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> </ul>
HAZCHEM	Not Applicable

#### **SECTION 6 Accidental release measures**

# Personal precautions, protective equipment and emergency procedures

See section 8

# **Environmental precautions**

See section 12

## Methods and material for containment and cleaning up

Minor Spills	Clean up all spills immediately. If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator. Use dry clean up procedures and avoid generating dust. Place in clean drum then flush area with water.
Major Spills	Clear area of personnel and move upwind If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator. Prevent, by any means available, spillage from entering drains or water courses. Use dry clean up procedures and avoid generating dust. Recover uncontaminated product in clean, dry, labelled containers Collect recoverable product into labelled containers for recycling

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

Frecautions for sale manufing	
	Avoid generating and breathing dust.

Safe handling

Limit all unnecessary personal contact.

Wear protective clothing when risk of exposure occurs.

▶ Use in a well-ventilated area.

Avoid contact with incompatible materials.

▶ When handling, **DO NOT** eat, drink or smoke.

Keep containers securely sealed when not in use.

Avoid physical damage to containers.

Always wash hands with soap and water after handling.

Other information

▶ Store under cover.

Protect containers against physical damage.

Observe manufacturer's storage and handling recommendations contained within this SDS.

# Conditions for safe storage, including any incompatibilities

Suitable container	Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.
	NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.
Storage incompatibility	No known incompatibility with normal range of industrial materials

# SECTION 8 Exposure controls / personal protection

# Control parameters

# Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	kaolin	Kaolin	10 mg/m3	Not Available	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

## Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
China Clay Ultrafine (Calcined Kaolin)	Not Available	Not Available	Not Available

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Ingredient	Original IDLH	Revised IDLH
kaolin	Not Available	Not Available
feldspars	Not Available	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
feldspars	E	≤ 0.01 mg/m³

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

#### **Exposure controls**

None required when handling small quantities.

#### OTHERWISE:

Use in a well-ventilated area

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

#### Appropriate engineering controls

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain

#### Personal protection











# Eye and face protection

Safety glasses with side shields

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

# Skin protection

See Hand protection below

# Hands/feet protection

► Barrier cream and

► Heavy gloves, e.g. leather

or

► PVC gloves

Safety footwear

# **Body protection**

See Other protection below

Other protection

Overalls.

► Eyewash unit.

# Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

<sup>\* -</sup> Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

# **SECTION 9 Physical and chemical properties**

## Information on basic physical and chemical properties

	• •		
Appearance	White powder with a `clay' odour when moistened. Insoluble in water. Very inert.		
Physical state	Divided Solid	Relative density (Water = 1)	2.65
Odour	Not Available	Partition coefficient n-octanol / water	Not Available

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Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	5.1-7.0
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

#### **SECTION 11 Toxicological information**

Information	on	toxicological	effects
milomiation	<b>UII</b>	toxicological	CHECIS

Not normally a hazard due to non-volatile nature of product

The dust may be discomforting

if inhaled and may be

harmful

from repeated exposures over long periods Inhaled

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability

Considered an unlikely route of entry in commercial/industrial environments Considered to be non toxic The material may be mildly discomforting

if excessive concentrations of particulate are inhaled.

If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

Effects on lungs are significantly enhanced in the presence of respirable particles.

Ingestion

and

harmful

if swallowed in large quantity

Skin Contact

Not considered an irritant through normal use. The material may be mildly discomforting

and may cause drying of the skin

Eve

The dust may produce eye discomfort and abrasive eye inflammation.

Chronic dust inhalation as experienced in mineral extraction has caused Kaolinosis with heavy lung marking, emphysema, and nodular

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

Principal routes of exposure are usually by inhalation of generated dust

Chronic

Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50000 inch) are present. Lung shadows are seen in the X-ray. Symptoms of pneumoconiosis may include a progressive dry cough, shortness of breath on exertion, increased chest expansion, weakness and weight loss. As the disease progresses, the cough produces stringy phlegm, vital capacity decreases further, and shortness of breath becomes more severe. Other signs or symptoms include changed breath sounds, reduced oxygen uptake during exercise, emphysema and rarely, pneumothorax (air in the lung cavity).

China Clay Ultrafine (Calcined Kaolin)	TOXICITY  Not Available	IRRITATION  Not Available
kaolin	TOXICITY  Not Available	IRRITATION  Not Available

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	TOXICITY	IRRITATION	
feldspars	Not Available	Not Available	
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		
KAOLIN	For bentonite clays:  Bentonite (CAS No. 1302-78-9) consists of a group of clays formed by crystallization of vitreous volcanic ashes that were deposited in water. The expected acute oral toxicity of bentonite in humans is very low. However, when bentonite had been used as a prophy paste, larger amounts caused severe eye injury, including abscesses behind the cornea. In animals, large amounts caused decreased growth, muscle weakness and death with marked changes in both calcium and phosphorus metabolism.  Bentonite, in animals, caused lung scarring if instilled into the windpipe. Bentonite clay dust is believed to be responsible for asthma in workers in an American processing plant.  Swallowing bentonite without adequate liquids may result in intestinal obstruction in humans.  Chronically swallowing bentonite has been reported to cause muscle inflammation.		
KAOLIN & FELDSPARS	No significant acute toxicological data identified in literature search.		
Acute Toxicity	×	Carcinogenicity	<b>~</b>
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	<b>~</b>
Mutagenicity	×	Aspiration Hazard	×

Legend:

★ - Data either not available or does not fill the criteria for classification

🧪 – Data available to make classification

# **SECTION 12 Ecological information**

#### **Toxicity**

China Clay Ultrafine (Calcined Kaolin)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
kaolin	Not Available	Not Available	Not Available	Not Available	Not Available
feldspars	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suit V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment				

Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

# Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
	No Data available for all ingredients	No Data available for all ingredients	

## **Bioaccumulative potential**

Ingredient	Bioaccumulation	
	No Data available for all ingredients	

# Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

# **SECTION 13 Disposal considerations**

#### Waste treatment methods

Recycle wherever possible. Product / Packaging disposal Bury residue in an authorised landfill.

# **SECTION 14 Transport information**

# **Labels Required**

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HAZCHEM

Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
kaolin	Not Available
feldspars	Not Available

#### Transport in bulk in accordance with the ICG Code

Product name	Ship Type
kaolin	Not Available
feldspars	Not Available

# **SECTION 15 Regulatory information**

#### Safety, health and environmental regulations / legislation specific for the substance or mixture

# kaolin is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)
Chemical Footprint Project - Chemicals of High Concern List

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

feldspars is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

#### **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	No (feldspars)
Canada - NDSL	No (kaolin)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (kaolin; feldspars)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	No (feldspars)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

# **SECTION 16 Other information**

Revision Date	15/04/2021
Initial Date	06/09/2001

## **SDS Version Summary**

Version	Date of Update	Sections Updated
4.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
5.1.1.1	15/04/2021	Classification change due to full database hazard calculation/update.
5.1.2.1	26/04/2021	Regulation Change
5.1.3.1	03/05/2021	Regulation Change
5.1.4.1	06/05/2021	Regulation Change
5.1.5.1	10/05/2021	Regulation Change

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification

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committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### **Definitions and abbreviations**

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit,

IDLH: Immediately Dangerous to Life or Health Concentrations

ES: Exposure Standard OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors BEI: Biological Exposure Index

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List

NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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TEL (+61 3) 9572 4700.