

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Product Name: China Clay Polywhite B
Substance Name: Kaolin
Chemical Name: Hydrated aluminium silicate
REACH Registration notes: Exempted in accordance with Annex V.7
CAS Number: 1332-58-7
EC Number: 310-194-1
Molecular Weight: Unspecified for this UVCB substance

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

Identified uses: A functional additive.
Uses advised against: No specific uses advised against are identified.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification 1272/2008 (CLP):

Physical and Chemical Hazards: Not classified
Human health: Not classified
Environmental: Not classified

Classification 67/548/EEC

Human health hazard: This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008. It is recommended that due regard be taken of the specified constituents in deriving an Occupational Exposure Standard for the workplace.

Environment: The product is not expected to be hazardous to the environment.

Physical and Chemical Hazards: This product should be handled with care to avoid dust generation.

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Label elements:

EC Number: 310-194-1
Hazard statements: NC Not Classified.

Other hazards: This substance is not classified as PBT or vPvB according to current EU criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

KAOLIN 100%
CAS number: 1332-58-7
EC number: 310-194-1
Classification: Not Classified

The full text for all hazard statements is displayed in Section 16.

Product name: China Clay (Polwhite™ B)
Chemical name: Hydrated aluminium silicate
REACH registration notes: Exempted in accordance with REACH Annex V.7
CAS number: 1332-58-7
EC number: 310-194-1
Ingredient notes: This product is 100% Kaolin, which is a UVCB substance sub-type 4. This product does not contain any SVHC substances at levels greater than 0.1 % by weight.
Composition comments: This product contains less than 1% quartz (fine fraction) Quartz: CAS-No.: 14808-60-7
EC No.: 238-878-4.
The classification of the product is shown in section 2 of this safety data sheet.

4. FIRST AID MEASURES

Description of first aid measures:

General information: No acute and delayed symptoms and effects are observed. Consult a physician for all exposures except for minor instances.
Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact: No special first aid measures necessary.
Eye contact: Do not rub eye. Rinse with copious quantities of water and seek medical attention if irritation persists.
Ingestion: No special treatment required. Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed: The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor: No specific recommendations.

[cont...]

5. FIRE-FIGHTING MEASURES

Extinguishing Media: The product is non-combustible. No specific extinguishing media is needed. Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: No restriction on the extinguishing media to be used.

Special hazards arising from the substance or mixture: Specific hazards: Non-combustible. No hazardous thermal decomposition.

Advice for fire-fighters:

Protective actions during firefighting: Fighting Procedures: No specific fire-fighting protection is required. Use an extinguishing agent suitable for the surrounding fire. Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up: Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Alternatively shovel into bags.

Reference to other sections: For personal protection, see section 8. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier. Do not eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas. For personal protection, see Section 8.

Advice on general occupational hygiene: Keep dust levels to a minimum. Minimize dust generation. General occupational hygiene measures are required. These include good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices). Shower and change clothes at end of work shift. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities: Store in a dry covered area. Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

Specific end use(s):

Usage description: If you require advice on specific uses, please contact your supplier.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters:****Occupational exposure limits:**

A European Binding OEL (Occupational Exposure Limit) for respirable crystalline silica dust is set at 0.1 mg/m³ in the Directive (EU) 2017/2398, measured as an 8-hour TWA (Time Weighted Average).

KAOLIN:

Long-term exposure limit (8-hour TWA): WEL 2 mg/m³ respirable dust

Inorganic dust:

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Quartz:

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³ respirable dust

WEL = Workplace Exposure Limit

Ingredient comments:

Maintain personal exposure below occupational exposure limits for dust (inhalable and respirable) as dictated in the national legislation.

Exposure controls:

Appropriate engineering controls: Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g., by isolating personnel from dusty areas. Remove and wash soiled clothing. Observe any occupational exposure limits for the product or ingredients.

Eye protection:

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. Contact lenses should not be worn when working with this product.

Hand protection:

Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Neoprene. Rubber (natural, latex).

Other skin and body protection: For skin, normal work clothes are appropriate.

Hygiene measures:

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin.

Environmental exposure controls: All ventilation systems should be filtered before discharge to atmosphere. Avoid releasing into the environment. Contain the spillage.

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Respiratory equipment: Local ventilation to control airborne dust levels below occupational exposure limits is recommended. In case of exposure, where engineering controls are insufficient, the use of Respiratory Protective Equipment (RPE) is recommended. A risk assessment process must be followed to ensure adequate protection from the airborne dust. The type of RPE must suit the work situation and the specific requirements of the wearer. Other environmental conditions should also be considered. The minimum "Assigned Protection Factor" (APF) required will depend on the measured or predicted occupational exposure levels divided by the OEL detailed in section 8.1. Filters specified as FFP2 and P2 have an APF of 10. Correctly fitted, these would reduce the exposure to the wearer down to one tenth of the working atmosphere. Depending on the assessment of the exposure, a lesser or higher efficiency of filter may be required. The manufacturer's instructions and regulatory guidance regarding duration of use and correct fitting should be followed. The wearer of the selected RPE should receive training before use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Powder
Colour:	White/off white
Odour:	Almost odourless
pH:	5-8 @ 10 % Slurry
Melting point:	> 450 °C EU Method A1
Initial boiling point and range:	Not applicable (Solid with a melting point > 450°C)
Flash point:	Not applicable (Solid with a melting point > 450°C)
Evaporation rate:	Not applicable (Solid with a melting point > 450°C)
Flammability (solid, gas):	Non-flammable EU Method A1
Upper/lower flammability or explosive limits:	Non-explosive (void of any chemical structures commonly associated with explosive properties).
Vapour pressure:	Not applicable (Solid with a melting point > 450°C)
Vapour density:	Not applicable (Solid with a melting point > 450°C)
Relative density:	2.6 g/cm ³
Bulk density:	0.5 - 0.9 g/cm ³
Solubility(ies):	<1 mg/litre @ 20 °C EU Method A6
Partition coefficient:	Not applicable (inorganic substance)
Auto-ignition temperature:	No relative self-ignition temperature below 400 °C EU method A16
Decomposition Temperature:	Not applicable (Solid with a melting point > 450°C)
Viscosity:	Not applicable (Solid with a melting point > 450°C)
Explosive properties:	There are no chemical groups present in the product that are associated with explosive properties.
Oxidising properties:	There are no chemical groups present in the product that are associated with oxidising properties.
Other information	No information required.

[cont...]

10. STABILITY AND REACTIVITY

Reactivity:	There are no known reactivity hazards associated with this product.
Chemical stability:	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions:	There are no known reactivity hazards associated with this product.
Conditions to avoid:	No particular incompatibility.
Incompatible materials:	No particular incompatibility.
Hazardous decomposition products:	Does not decompose when used and stored as recommended.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Inhalation:	Dust in high concentrations may irritate the respiratory system.
Ingestion:	No harmful effects expected in amounts likely to be ingested by accident.
Skin contact:	Prolonged contact may cause dryness of the skin.
Eye contact:	Particles in the eyes may cause irritation and smarting.

Toxicological information on ingredients:

Kaolin:

Acute toxicity – oral:	Notes (oral LD ₅₀) LD ₅₀ >2000 mg/kg, Oral, Rat OECD 420
Acute toxicity – dermal:	Notes (dermal LD ₅₀) LD ₅₀ >2000 mg/kg, Dermal, Rat OECD 402
Acute toxicity – inhalation:	Notes (inhalation LC ₅₀) LC ₅₀ >5.07 mg/l, Inhalation, Rat OECD 436
Skin corrosion/irritation:	Skin corrosion/irritation Kaolin is not irritating to skin (OECD 404, rabbit).
Serious eye damage/irritation:	Kaolin is not irritating to eye (OECD 405, rabbit).

Respiratory sensitisation: Mouse: Not sensitising. OECD 429

Skin sensitisation: Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. OECD 429

Germ cell mutagenicity:

Genotoxicity - in vitro:	No specific test data are available.
Genotoxicity - in vivo:	No specific test data are available.

Carcinogenicity:

In studies where kaolin has been administered via intratracheal installation, kaolin behaves as a poorly soluble particulate of low toxicity with inflammatory responses of lung tissue. Epidemiological studies covering a large number of workers did not reveal an explicit association between kaolin exposure and tumour formation. In summary, no concern on carcinogenicity is triggered by animal studies or by epidemiological findings.

Reproductive toxicity – fertility: No specific test data are available.

Specific target organ toxicity - single exposure:

STOT - single exposure: No organ toxicity observed in acute tests.

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Specific target organ toxicity - repeated exposure:

STOT - repeated exposure: Based on the results from animal studies (mainly via intratracheal administration) it seems that the severity of effects seen in the lungs may be related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral.

Epidemiological studies show that exposure to high levels of kaolin dust may lead to pneumoconiosis. Results indicate that the effects from kaolin exposure are typical of those seen with poorly soluble particles under conditions of lung overload i.e., the lungs clearance capacity has been exceeded. It is likely that the severity of any effects are related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral.

Aspiration hazard: No specific test data are available.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Toxicity:

Acute aquatic toxicity:

Acute toxicity – fish: LC₅₀, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout) OECD 203

Acute toxicity - aquatic invertebrates: EC₅₀, 48 hours: >1000 mg/l, Daphnia magna OECD 202

Acute toxicity - aquatic plants: EC₅₀, 72 hours: >1000 mg/l, Freshwater algae OECD 201

Acute toxicity – microorganisms: No specific test data are available.

Chronic aquatic toxicity:

Chronic toxicity - fish early life stage: No specific test data are available.

Chronic toxicity - aquatic invertebrates: No specific test data are available.

Toxicity to soil: No specific test data are available.

Toxicity to terrestrial plants: No specific test data are available.

Ecological information on ingredients: Kaolin

Persistence and degradability: The product is not biodegradable.

Persistence and degradability: The substance is inorganic and therefore will not undergo abiotic degradation.

Biodegradation: The substance is inorganic and therefore will not undergo biodegradation.

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.

Partition coefficient: Not applicable (inorganic substance).

Bioaccumulative potential: Not relevant for inorganic substances.

Partition coefficient: Not applicable (inorganic substance).

Mobility in soil:

Mobility: The product is insoluble in water.

Mobility: Kaolin is almost insoluble and thus presents a low mobility in most soils.

Results of PBT and vPvB assessment: This substance is not classified as PBT or vPvB according to current EU criteria.

Other adverse effects: None known.

[cont...]

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13. DISPOSAL CONSIDERATIONS

- General information:** This mineral can be disposed of as a nontoxic/inactive material in approved landfill sites in accordance with local regulations. Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company. Comply with local regulations for disposal.
- Waste treatment methods:** Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

14. TRANSPORT INFORMATION

- General:** The material is not classified as a dangerous substance and no restrictions apply for land/sea/air transportation (IMDG, IATA, ADR/RID). Avoid generation and spreading of dust.
- UN number:** Kaolin is not classified as hazardous for transport and does not have a UN Number.
- UN proper shipping name:** No information required.
- Transport hazard class(es):**
ADR, IMDG, ICAO/IATA, RID: All not classified.
- Packing group:**
No information required.
- Environmental hazards:**
Environmentally hazardous substance/marine pollutant: No.
- Special precautions for user:** Avoid any release of dust during transportation, by using air-tight tanks for powders and covered trucks for other dry forms.

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information required.

15. REGULATORY INFORMATION

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

- National regulations:** EH40/2005 Workplace exposure limits.
Health and Safety at Work etc. Act 1974 (as amended).
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
- EU legislation:** Exempted in accordance with REACH Annex V.7
- Chemical safety assessment:** No chemical safety assessment has been carried out.

[cont...]

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Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
EC: European Commission
EC₅₀: 50% of maximal Effective Concentration.
FFP: Filtering Face Piece
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
LC₅₀: Lethal Concentration to 50 % of a test population.
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
SDS: Safety Data Sheet
TWA: Time Weighted Average
UVCB: Unknown Variable Composition or Biological

Source of key data used to compile the data sheet: Supplier information

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.