

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product details: KAOLIN powder or lumps

Trade name: China clay

Intended use: Paints, ceramics, rubber

2. COMPOSITION / INFORMATION ON INGREDIENTS

Kaolinite $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$ or $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 4\text{H}_2\text{O}$

This kaolin is a water refined aluminium silicate containing mainly kaolinite with trace quartz and mica. Crystalline free silica is largely absent after this form of beneficiation.

CAS No: 1332-58-7

3. HAZARDS IDENTIFICATION

INERT HAZARD CATEGORY: Inert particulate

Kaolin is affirmed by the Manufacturing Chemists' Association of the USA as generally regarded as safe (GRAS) – 21CFR,186.1256

Nuisance Dust may cause irritation to the respiratory and gastro intestinal tract.

Kaolin may be used in paper and paperboard coatings for food contact – 21CFR,175.300

4. FIRST AID MEASURES

INGESTION: If swallowed give the person large amounts of water to drink.

INHALATION: If large quantities are breathed in, move the exposed person to fresh air. Get medical attention for any breathing difficulty.

EYE CONTACT: Immediately flush with plenty of water for a few minutes or until water runs clear. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Non-flammable, Non-combustible, will not burn.

Use extinguishing media appropriate for any surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Precaution for nuisance dust to maintain dust levels below TLV–TWA.

Material is very slippery when wet.

Clean up by wet sweeping, vacuuming or flushing with water.

Containerise for disposal or reclamation.

7. HANDLING AND STORAGE

Minimise dust generation. Wet methods are recommended where practical, otherwise dust extraction should be installed at dust generation points.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:

OSHA Permissible Exposure Limit (PEL) 15mg/m³ (TWA) total particulate.
5mg/m³ (TWA) respirable fraction.
ACGIH Threshold Limit Value (TLV) 2mg/m³ (TWA) for respirable dust, A4 Not classifiable as a human carcinogen.
NIOSH Recommended Exposure Limits (REL) 10mg/m³ (TWA) total particulate.
5mg/m³ (TWA) respirable fraction.

PERSONAL PROTECTIVE EQUIPMENT: Normal precautions for nuisance dust.

GLOVES: Not required.

RESPIRATORY: NIOSH approved dust respirator.

EYE: Safety Glasses.

FOOTWEAR: Non-slip soles if used in wet areas.

CLOTHING: Not required.

Where dust levels exceed 15 mg/m³ in the air, dust respirators capable of removing particles between 0 and 20 microns should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Fine white powder

ODOUR AND APPEARANCE: Odourless white to off-white powder

SOLUBILITY IN WATER: Not soluble in water

SOLUBILITY IN OTHER LIQUIDS: Not soluble in mineral acids and organic solvents

pH: 7 – 8

SPECIFIC GRAVITY: 2,6

CHEMICAL FAMILY: Natural clay mineral

10. STABILITY AND REACTIVITY

Kaolin is chemically stable and compatible with other substances. It is non reactive and has no decomposition products.

11. TOXICOLOGICAL INFORMATION

PRIMARY ROUTE OF ENTRY: Eye contact and Inhalation

EFFECTS OF ACUTE EXPOSURE: None

EFFECTS OF CHRONIC EXPOSURE: Nuisance dust may cause respiratory problems

EXPOSURE LIMIT OF MATERIAL: Nuisance dust TLV-TWA 15mg/m³ total dust

MAXIMUM CONCENTRATION OF DUST IN AIR: 5 mg/m³ 8-hour time-weighted average

12. ECOLOGICAL INFORMATION:

No adverse ecological effects are expected.

May affect turbidity of water if discharged in large quantities to lakes or streams.

13. DISPOSAL CONSIDERATIONS:

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility in accordance with local regulations regarding solid waste.

14. TRANSPORT INFORMATION:

This product is not specifically listed under hazardous chemical transportation. Not regulated.
HS Hazard Code: 2507.00

15. REGULATORY INFORMATION:

Not included as a hazardous material requiring special regulations.

16. OTHER INFORMATION:

Kaolin is inert and non-toxic. It can be injurious to the lungs if continual and regular inhalation of high dust concentrations takes place over a long period of time.

<u>COMPOSITION</u>	(Typical)
SiO ₂	46,12%
Al ₂ O ₃	37,86%
Fe ₂ O ₃	0,28%
TiO ₂	0,55%
CaO	0,16%
MgO	0,18%
K ₂ O + Na ₂ O	0,58%
L.O.I.	13,74%

PARTICLE SIZE

(Typical)

% Less 10 micron	83
% Less 2 micron	60