
MATERIAL SAFETY DATA SHEET

Last review: January 12th, 2012**1 – Identification of substance and company**

Product: METAKAOLIN / CALCINED KAOLIN CLAY**Trade names:** METACAULIM HP® / METACAULIM HP® BRANCO / METACAULIM HP® XW / METACAULIM HP® ULTRA / METAVEDA**Manufacturer/Supplier:** Metacaulim Brasil Ind. Com. Ltd. / Av. Humberto Cereser, 5530 – Jundiaí – SP – 13201.711 – Brazil – fabrica@metacaulim.com.br**Technical Information:** (55) (11) 4584 5327**Emergencies (24 hr):** (55) (11) 8335 9684**Fax:** (55) (11) 4584 1475**2 – Data on components**

CAS No. / List of Components / Percentage

1332-58-7	calcined natural aluminosilicate (Kaolin)	over 90%
14808-60-7	quartz (SiO ₂)	less than 6%

Additional information: Not applicable**3 – Hazards identification**

Information pertaining to particular dangers for man and environment: the product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the European Union" in the latest valid version.**Classification system:** the classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.**NFPA / HMIS ratings (scale 0 - 4):** Health = 1 / Fire = 0 / Reactivity = 0**Additional information:** kaolin clay may contain up to 6% quartz which is part of the natural raw material as mined. However, quartz has been recently classified by IARC (International Agency for Research on Cancer) as carcinogenic to humans by inhalation (Group I). Furthermore, quartz can cause silicosis and other lung diseases on prolonged exposure. It is not expected that the operator will be exposed to free respirable quartz particles in excess of the limits allowed by the worker protection regulations. Nevertheless, the user is responsible for controlling the working environment according to local regulations, e.g. in the UK: COSHH Regulations. Moreover, we can state that the content of free respirable crystalline silica is invariably below 0.2% (zero point two percent) in all types of metakaolin produced by our company.

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4 – First aid measures

After inhalation: supply fresh air; consult doctor in case of complaints.

After skin contact: generally the product does not irritate the skin. Immediately rinse with water. If skin irritation occurs, consult a doctor.

After eye contact: immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If symptoms occur, consult a doctor.

After swallowing: If symptoms occur, consult doctor.

5 – Fire fighting measures

Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam. Use fire fighting measures that suit the environment.

Protective equipment: wear protective equipment.

Additional information: dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 – Accidental release measures

Person-related safety precautions: wear protective clothing.

Measures for environmental protection: no special measures required.

Measures for cleaning/collecting: pick up mechanically. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Additional information: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 – Handling and storage

Information for safe handling: prevent formation of dust.

Maximum piling: 15 bags of 20 kg each, or 2 'super-sacks' of 600 to 800 kg each; when storing, use dry and clean rooms, away from sun light, over plastic film or palette, to avoid contact with wet floors.

8 – Components control and personal protection

Components with limit values that require monitoring at the workplace:

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1332-58-7 / natural aluminosilicate

PEL: 15*; 5** mg/m³ - OSHA TWA *Total dust **Respirable fraction

REL: 10*; 5** mg/m³ - NIOSH TWA *Total dust **Respirable fraction

TLV: 2* mg/m³ - ACGIH TWA *Respirable fraction

14808-60-7 / quartz

PEL: 30* 10** mg/m³ - OSHA TWA *per (%SiO₂+2) Total Dust, **Respirable

REL: 0.05* mg/m³ - NIOSH TWA *Respirable dust

TLV: 0.1 mg/m³ - ACGIH TWA

Personal protective equipment:

General protective and hygienic measures: the usual precautionary measures for handling chemicals should be followed.

Breathing equipment: if exposure limit is exceeded, a suitable respiratory protective device is recommended.

Protection of hands: protective gloves, impermeable and resistant to product/substance preparation.

Eye protection: safety glasses

Body protection: Protective work clothing

9 – Physical and chemical properties

General Information

Form: Powder; **Color:** white or pink to orange; **Odor:** Odorless;

Change in condition:

Melting point/Melting range: over 2000 degrees Celsius; **Flash point:** not applicable; **Flammability (solid, gaseous):** not flammable; **Auto igniting:** not self-igniting; **Danger of explosion:** does not present an explosion hazard; **Density at 20°C:** 650 kg / m³. **Solubility in / Miscibility with Water:** Insoluble.

Typical chemical analysis:

SiO ₂ :	50,0% a 56,0%	Al ₂ O ₃ :	35,0 a 44,5%
Fe ₂ O ₃ :	< 5,0%	MgO:	< 0,1%
CaO:	< 0,5%	SO ₃ :	< 0,1%
Total alkali:	< 1,5%	LOI:	<4,0%

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10 – Stability and reactivity

Thermal decomposition / conditions to be avoided: no decomposition if used according to specifications.

Dangerous reactions: no dangerous reactions known.

Dangerous products of decomposition: no dangerous decomposition products known.

11 – Toxicology information

Acute toxicity:

LD/LC50 values that are relevant for classification:

1332-58-7 / natural aluminosilicate

Oral LD50 >5000 mg/kg (rat) - TAP Review Agricultural Marketing Service 8/16/2002

Dermal LD50 >5000 mg/kg (rat) - TAP Review Agricultural Marketing Service 8/16/2002

14808-60-7 / quartz (SiO₂)

Oral LD50 500 mg/kg (rat)

IUCLID Dataset 18-Feb-2000

Primary irritant effect:

on the skin: may cause irritation with dryness and abrasion.

in the eye: may cause abrasion, redness and pain.

Sensitization: no sensitizing effects known.

Additional toxicological information: when used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

12 – Ecology information

General notes: Generally not hazardous for water

13 – Disposal considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal

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disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14 – Transport information

Maritime transport IMDG / Marine pollutant: No

Transport/Additional information: not regulated as hazardous goods by DOT, ADR, IMO, or IATA.

15 - Regulations

Carcinogenicity categories

EPA (Environmental Protection Agency): none of the ingredients are listed.

IARC (International Agency for Research on Cancer): 14808-60-7 quartz (SiO₂)

NTP (National Toxicology Program): 14808-60-7 quartz (SiO₂)

TLV (Threshold Limit Value established by ACGIH): 1332-58-7 natural aluminosilicate (Kaolin) and 14808-60-7 quartz (SiO₂)

MAK (German Maximum Workplace Concentration): 14808-60-7 quartz (SiO₂)

OSHA-Ca (Occupational Safety & Health Administration): none of the ingredients are listed.

Canadian DSL, NDSL / Japan ENCS / Korea ECL / Philippines PICCS / Australia AICS / European EINECS: all ingredients are listed.

Product related hazard information: observe the general safety regulations when handling chemicals. The substance is not subject to classification according to the sources of literature known.

16 – Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Issuing department: Metacaulim Brasil Ind. Com. Ltda – Technical department