

SAFETY DATA SHEET

Maha CK-80

Effective 24 July 2015

1 – IDENTIFICATION, PRODUCT AND COMPANY

Product name: Maha CK-80

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

Product use: Mineral pigment used as an extender or filler in paints, coatings, adhesives, sealants, rubber & plastic formulations.

Supplier: Maha Chemicals (Asia) Pte Ltd

Address : 51 Tuas West Drive, Singapore 638415

Emergency phone: (65) 6863 1808

2 - HAZARD IDENTIFICATION

GHS classification: NONE (This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008 and in Directive 67/548/ECC)

Signal Word / Pictogram: NONE / NONE

OSHA classification: Air Contaminant – Kaolin is listed in Table Z-1 of 29 CFR 1910.1000

WHMIS classification: Non Controlled – contains less than 0.1% crystalline silica

Precautionary statements: Avoid breathing dust, wear approved respiratory protection if exposure is greater than suggested exposure limits (see Section 8)

3 – COMPOSITION, INFORMATION ON INGREDIENTS

Component(s)	CAS Registry No.	EINECS No.	% (Approx.)	GHS / EC Hazard Classification	REACH status
Calcined Kaolin	92704-41-1	296-473-8	100	Not classified as hazardous	Exempt

4 – FIRST AID MEASURES

Eye / Skin contact: Direct contact may cause irritation by mechanical abrasion. Hold eyelids apart and flush with a steady stream of water for several minutes. Rinse skin with water.

Inhalation: Dust may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following unprotected exposure in excess of suggested limits. Move person to fresh air.

Most important symptoms and effects both acute and delayed: Expected to be non-toxic. No acute and delayed symptoms and effects are observed.

Indication of any immediate medical attention and special treatment needed: No specific actions are required.

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.

5 - FIRE FIGHTING MEASURES, FIRE OR EXPLOSION HAZARDS

Extinguishing media: Non combustible. Use media appropriate for surrounding materials or packaging.

Special hazards arising from the substance: Non combustible. No hazardous thermal decomposition.

Advice for firefighters: Although inert, product can become slippery when exposed to water. Use caution walking around or handling broken product bags when exposed to water. **Protective measures:** Use protective equipment appropriate for surrounding materials or packaging.

Flash point:	Non combustible.	Flammable limits in air:	Not flammable.
Autoignition temperature:	Not flammable.	Explosion data:	Not explosive.
Unusual fire and explosion hazards:	None known.	Sensitivity to static discharge:	Not applicable.

SAFETY DATA SHEET

Maha CK-80

Effective 24 July 2015

6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions:** 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.
- Environmental precautions:** This product is generally non-toxic to aquatic systems but may cause high turbidity in storm water. Product is generally not harmful to water treatment systems.
- Clean up methods:** Collect by vacuum and mechanical sweeping, avoid dust generation. Remaining residue can be washed to water treatment or storm water systems.
- Reference for other sections:** See sections 8 and 13.

7 - HANDLING AND STORAGE

- 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.
- Conditions for safe storage:** Best if kept under 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.
- Specific end use(s):** Please refer to your customer service, sales or distributor representative for detailed information. Product is considered industry grade material.

8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Control parameters: No exposure limits have been published for calcined kaolin products. We recommend using the limits published for Kaolin (CAS# 1332-58-7, EC#310-194-1). Use your local / national occupational exposure limits for kaolin (or "nuisance dust") if more stringent than the following:

Exposure Limits:	Value	Limit	Reference
Kaolin CAS# 1332-58-7	2 mg/m ³ (Respirable dust)	TWA (8 hour)	ACGIH TLV-A4*
	15 mg/m ³ (Total dust)	TWA (8 hour)	OSHA PEL
	5 mg/m ³ (Respirable dust)	TWA (8 hour)	OSHA PEL
	10 mg/m ³ (Total dust)	TWA (10 hour)	NIOSH REL
	5 mg/m ³ (Respirable dust)	TWA (10 hour)	NIOSH REL

Notes- (-A4) This indicates that kaolin is "Not Classifiable as a Human Carcinogen" by ACGIH.

This product contains less than 0.1% crystalline silica (quartz) based on testing using NIOSH method 7500.

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 work stations.
- Occupational exposure controls:**
- Eye protection:** Approved safety glasses with side shields.
- Skin / body protection:** No special clothing required. Use suitable protection considering the work environment and exposure risk.
- Hand protection:** Any type of glove that reduces skin contact with the material is acceptable.
- Respiratory protection:** Use a compliant particulate respirator when dust levels exceed or are likely to exceed regulatory limits.
- 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.

SAFETY DATA SHEET

Maha CK-80

Effective 24 July 2015

9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Solid, powder	Odor:	soil-like odor.	pH in water (20% solids suspension):	4.0- 6.3
Melting point:	N/A (>1700 °C)	Density / Specific gravity (H₂O=1):	2.2- 2.6	Grain shape:	Tabular – Platy
Solubility in water:	Negligible / Insoluble	Solubility in hydrofluoric acid:	Yes	Other information:	No other information

10 - STABILITY AND REACTIVITY

Reactivity:	Inert / not reactive	Chemical stability:	Chemically stable
Possibility of hazardous reactions:	No hazardous reactions		
Conditions to avoid:	None known. Stable under normal storage, handling and environmental conditions.		
Incompatible materials:	None known. This product is stable when used as intended by the manufacturer.		
Hazardous decomposition products:	None known. This product is stable in water		

11 - TOXICOLOGICAL INFORMATION

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
Germ cell mutagenicity:	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.
Reproductive toxicity:	Limited animal studies indicate no hazard, generally regarded as safe by FDA
Specific Target Organ Toxicity (STOT)	
Single exposure:	Limited animal studies indicate no hazard, generally regarded as safe by FDA
Repeated exposure:	Inhalation- Human studies indicate that chronic (15-20 years) exposure to excessive dust levels 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, generally regarded as safe by FDA

12 - ECOLOGICAL INFORMATION

Toxicity:	N/A. Animal testing indicates no adverse effects.	Persistence and degradability:	N/A. Product is made from a naturally occurring, abundant, innocuous mineral.
Bioaccumulative potential:	N/A. This product is not expected to accumulate in biota.	Mobility in soil:	Negligible. This product is insoluble in water
Results of PBT and vPvB assessment:	N/A	Other adverse effects:	May affect turbidity of water if discharged in large quantities to lakes or streams.

13 - DISPOSAL CONSIDERATIONS

Waste treatment methods:	Improper disposal may create a nuisance dust hazard.
Waste from residues / unused products:	Whenever possible pickup and reuse uncontaminated product, avoiding dust generation. Product material is not a hazardous waste. Dispose of in accordance to applicable national and local regulations. Place in closed containers to avoid dust generation.
Packaging:	Dust formation from residues in packaging should be avoided and suitable worker protection assured. Empty packaging materials are suitable for recycling. Place in closed containers to avoid dust generation.

SAFETY DATA SHEET

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14 - TRANSPORTATION INFORMATION

UN or DOT number & proper name: N/A. Not a hazardous material as defined under national / international road, rail, sea and air transport regulations.

Transport hazard classes (ADR, IMDG, ICAO / IATA, RID): Not classified **Packaging group:** N/A **Environmental hazards:** None

Special precautions for user: No special precautions **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** N/A

Label required: Use original label including precautionary statement. When disposing of this material in its pure form use a "Non-Hazardous Waste" label.

15 - REGULATORY INFORMATION

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: Kaolin is listed in Table Z-1 of 29 CFR 1910.1000 "Air Contaminants", subject to reporting per 40 CFR Part 370 (TQ = 10,000 lbs.)

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: Alaska, Arizona, California, Idaho, Indiana, Massachusetts, Michigan, Minnesota, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, and Washington.

Canada: 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 all the information required by the Controlled Products Regulations.

WHIMS classification: **Noncontrolled** (tested, contains less than 0.1% crystalline silica).

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.

Foreign Regulations: CAS# 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), AICS (Australia) lists calcined kaolin under the CAS# 66402-68-4.

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

Chemical safety assessment: Not performed on this product. Adverse effects are not expected when product is used according to guidelines presented in this document.

16 - OTHER INFORMATION

SDS Prepared by:

Maha Chemicals (Asia) Pte Ltd

Prepared on: 24 July 2015

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.