

	<p align="center">Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)</p>
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1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Calcined kaolin.

REACH Registr. n°: Exempted in accordance with Annex V.7.

Synonyms: Calcined kaolin, calcined clay, chamotte, metakaolin, grog

Trade names: **MÉTAKAOLIN BRUT**
ARGICAL-M 1000
MK-36

1.2. Relevant identified uses of the substance or mixture and uses advised against

Main applications (non-exhaustive list):

- Ceramics (refractories, sanitaryware, tiles, tableware, enamels, glass, etc.)
- Fillers
- Building materials & cement
- Plastic & rubber
- Paint
- Adhesives & sealants
- Fertilisers and agricultural products

1.3. Details of the supplier of the safety data sheet

IMERYS REFRACTORY MINERALS CLÉRAC
La Gare
17270 Clérac
France

Phone N°: +33 546 04 17 11

Fax N°: +33 546 04 18 36

Competent person: Virginie Soleil-Raynaut <product_stewardship_irm@imerys.com>

1.4. Emergency telephone number

For France: +33 145 42 59 59 (INRS "urgence produits")

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

This product does not meet the criteria for classification as hazardous as defined in Regulation (EC) 1272/2008 and in Directive 67/548/EEC.

This product contains less than 1 % of respirable quartz.

Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica (quartz) may be generated. Prolonged and / or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

This product should be handled with care to avoid dust generation.

Regulation (EC) 1272/2008: No classification.

Classification EU (67/548/EEC): No classification.

2.2. Label elements

None.

2.3. Other hazards

This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

3. COMPOSITION / INFORMATION ON INGREDIENTS

a) Substance

Name	Amount	EINECS	CAS
Kaolin, calcined	100 %	296-473-8	92704-41-1

Calcined kaolin is a UVCB substance (**U**nknown or **V**ariable composition, **C**omplex reaction products or **B**iological materials).

b) Main constituent

Name	EINECS	CAS
Amorphous phase	—	—

c) Constituent contributing to classification

This product contains less than 1 % of respirable quartz.

4. FIRST AID MEASURES

4.1. Description of first aid measures

a) Eye contact

Rinse with copious quantities of water and seek medical attention if irritation persists.

b) Inhalation

Movement of the exposed individual from the area to fresh air is recommended.

c) Ingestion

No first aid measure required.

d) Skin contact

No first aid measure required.

4.2. Most important symptoms and effects, both acute and delayed

No acute and delayed symptoms and effects are observed.

4.3. Indication of any immediate medical attention and special treatment needed

No specific actions are required.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

No specific extinguishing media is needed.

5.2. Special hazards arising from the substance or mixture

Non combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters

No specific firefighting protection is required.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

6.2. Environmental precautions

No special requirements.

6.3. Methods and material for containment and cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4. Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

7.1. 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 or check the Good Practice Guide referred to in section 16.

Do not to eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures / precautions

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.

7.3. Specific end use(s)

If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust).

For the occupational exposure limits in your country, please consult a competent occupational hygienist or the local regulatory authority.

8.2. Exposure controls

a) 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.

b) Individual protection measures, such as personal protective equipment

Eye / face protection	Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.
Skin protection	No specific requirement. For hands, see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.
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.
Respiratory protection	In case of prolonged exposure to airborne dust, wear a respiratory protective equipment that complies with the requirements of European or national legislation.

c) Environmental exposure controls

Avoid wind dispersal.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Powder
Odour	Odourless
Odour threshold	Not relevant
pH (100 g/l in water at 20 °C)	5 – 8
Melting point / freezing point	Not available
Initial boiling point and boiling range	Not relevant
Flash point	Not relevant
Evaporation rate	Not relevant

Flammability (solid, gas)	Non flammable
Upper / lower flammability or explosive limits	Not relevant
Vapour pressure	Not relevant
Vapour density	Not relevant
Relative density	2 – 3 g/cm ³
Solubility(ies)	Solubility in water : negligible (< 10 ⁻² g/l) Solubility in hydrofluoric acid : yes
Partition coefficient <i>n</i> -octanol / water	Not relevant
Auto-ignition temperature	Not relevant
Decomposition temperature	Not relevant
Viscosity	Not relevant
Explosive properties	Not relevant
Oxidising properties	Not relevant

9.2. Other information

No other information.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Inert, not reactive.

10.2. Chemical stability

Chemically stable.

10.3. Possibility of hazardous reactions

No hazardous reactions.

10.4. Conditions to avoid

Not relevant.

10.5. Incompatible materials

No particular incompatibility.

10.6. Hazardous decomposition products

Not relevant.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion / irritation	Based on available data, the classification criteria are not met.
Serious eye damage / irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT – single exposure	Based on available data, the classification criteria are not met.
STOT – repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Not relevant.

12.2. Persistence and degradability

Not relevant.

12.3. Bioaccumulative potential

Not relevant.

12.4. Mobility in soil

Negligible.

12.5. Results of PBT and vPvB assessment

Not relevant.

12.6. Other adverse effects

No specific adverse effects known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

a) Waste from residues / unused products

Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

b) Packaging

Dust formation from residues in packaging should be avoided and suitable worker protection assured.

Store used packaging in enclosed receptacles.

Recycling and disposal of packaging should be carried out in compliance with local regulations.

The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company.

14. TRANSPORT INFORMATION

14.1. UN number

Not relevant.

14.2. UN proper shipping name

Not relevant.

14.3. Transport hazard class(es)

ADR	Not classified.
IMDG	Not classified.
ICAO / IATA	Not classified.
RID	Not classified.

14.4. Packing group

Not relevant.

14.5. Environmental hazards

Not relevant.

14.6. Special precautions for user

No special precautions.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant.

15. REGULATORY INFORMATION

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

Not relevant.

15.2. Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V.7.

16. OTHER INFORMATION

Indication of the changes made to the previous version of the SDS

Amendment of § 1.1 and of § 1.3.

IARC and SCOEL publications

In 1997, the International Agency for Research on Cancer (IARC) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (*IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France*)

In June 2003, the European Commission's Scientific Committee for Occupational Exposure Limits (SCOEL) concluded:

"that the main effect in humans of the inhalation of respirable crystalline silica is silicosis. There is sufficient information to conclude that the relative lung cancer risk is increased in persons with silicosis (and apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk."

(SCOEL SUM Doc 94-final on respirable crystalline silica, June 2003)

So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required.

Social Dialogue on Respirable Crystalline Silica

A multi-sectoral "Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products containing it" was signed on 25 April 2006. This autonomous agreement, which received the European Commission's financial support, is based on a Good Practice Guide. The requirements of the agreement came into force on 25 October 2006. The agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the agreement and its annexes, including the Good Practice Guide, are available from <http://www.nepsi.eu> and provide useful information and guidance for the handling of products containing respirable crystalline silica.

Third party materials

Insofar as materials not manufactured or supplied by IMERYS REFRACTORY MINERALS CLÉRAC are used in conjunction with, or instead of, IMERYS REFRACTORY MINERALS CLÉRAC materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of IMERYS REFRACTORY MINERALS CLÉRAC's product in conjunction with materials from another supplier.

Training

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Liability

Such information is to the best of IMERYS REFRACTORY MINERALS CLÉRAC's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.