

Molochite

Distributed by: Laguna Clay Company 14400 Lomitas Ave City of Industry, CA 91746 1-800-4Laguna info@lagunaclay.com www.lagunaclay.com

Revision 15 of 01/07/2015

US_US_SDS_Molochite_20150601_en.docx

Page 1/8

IMERYS
Refractory Minerals

Safety Data Sheet

(according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations)

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

1.1. Product identifier

Calcined Kaolin.

Product Form: Substance

Synonyms: Calcined kaolin, calcined clay, chamotte,

metakaolin, grog

Trade names: Molochite

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 & agricultural products

1.3. Details of the supplier of the safety data sheet

Imerys Minerals Ltd Par Moor Road Par Cornwall PL24 2SQ United Kingdom

Phone N°: +44 1726 818000 Fax N°: +44 1726 811200 Distributed by: Laguna Clay Company 14400 Lomitas Ave City of Industry, CA 91746 1-800-4Laguna info@lagunaclay.com www.lagunaclay.com

<u>Competent person:</u> Virginie Soleil-Raynaut < <u>product stewardship irm@imerys.com</u> >

1.4. Emergency telephone number

+44 1726 828800

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

<u>GHS-US classification:</u> The product does not meet the criteria for classification. The product contains less than 1% of crystalline silica.

2.2. Label elements

Hazard pictograms (GHS-US)	None
Signal word (GHS-US)	None
Hazard statements (GHS-US)	None
Precautionary statements (GHS-US)	None

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

a) Substance

<u>Name</u>	Amount	CAS
Kaolin, calcined	100 %	92704-41-1

Kaolin is a UVCB substance ($\underline{\mathbf{U}}$ nknown or $\underline{\mathbf{V}}$ ariable composition, $\underline{\mathbf{C}}$ omplex reaction products or $\underline{\mathbf{B}}$ iological materials).

b) Main constituent

<u>Name</u>	CAS
Mullite	1302-93-8
Amorphous phase	-

c) Constituent contributing to classification

This product contains less than 1% of crystalline silica.

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
Appropriate respirator selection is dependent upon the magnitude of

exposure and must be selected in accordance with 29 CFR 1910.134. For air concentrations above the PEL to 2.5mg/m3 crystalline silica, a NIOSH approved full facepiece air-purifying respirator with a HEPA filter or powered air-purifying respirator with a tight-fitting facepiece

and HEPA filter may be worn.

Other information Do not eat, drink or smoke during use.

c) Environmental exposure controls

Avoid wind dispersal.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Solid

Appearance Grains, Powder Odour Odourless Odour threshold Not relevant

pH (100 g/l in water at 20 °C)

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 2.7 g/cm^{3}

Solubility (ies) Solubility in water: negligible ($< 10^{-2}$ g/l)

Page 5/8

Solubility in hydrofluoric acid: yes

Partition coefficient *n*-octanol / water
Auto-ignition temperature
Decomposition temperature
Viscosity
Not relevant
Explosive properties
Not relevant

9.2. Other information

No other information available.

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

Avoid generating dust.

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.

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Carcinogenicity Not Classified

Quartz (14808-60-7)	
IARC Group	1 - Carcinogenic to humans
National Toxicity Program (NTP Status)	Known Human Carcinogens

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	This product contains less than 1% of crystalline silica and therefore is not classified according to criteria defined in the
	Regulation Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations.

US_US_SDS_Molochite_20150601_en.docx

Based on available data, the classification criteria are not met.

Page 6/8

12.ECOLOGICAL INFORMATION

Revision 15 of 01/07/2015

12.1. Toxicity

Aspiration hazard

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

US Federal Regulations:

Kaolin (CAS: 1332-58-7):

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (CAS: 14808-60-7):

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Europe:

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

16.OTHER INFORMATION

NFPA health hazard 1 - Exposure could cause irritation but

only minor residual injury even if no

treatment is given.

NFPA fire hazard 0 - Materials that will not burn.

NFPA reactivity 0 - Normally stable, even under fire

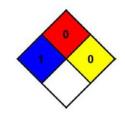
exposure conditions, and are not reactive

with water.

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 Minerals Ltd are used in conjunction with, or instead of, Imerys Minerals Ltd 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 Minerals Ltd'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 Minerals Ltd'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.



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