SAFETY DATA SHEET
Molochite

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME
Molochite

SYNONYMS, TRADE NAMES
Mullite, Calcined Kaolin

APPLICATION
A raw material for Ceramic Refractories and metal casting.

SUPPLIER
Imerys Minerals Ltd
Par Moor Road
Par, Cornwall
England
PL24 2SQ
Tel+44(0)1726 818000
Fax+44(0)1726 811200
SDS.expert@Imerys.com

EMERGENCY TELEPHONE
+44 (0) 1726 828800

2 HAZARDS IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

During handling, particularly when air conveying, the product may exhibit charge accumulation properties.

PHYSICAL AND CHEMICAL HAZARDS
Wet substance spillage can constitute a slipping hazard.

HUMAN HEALTH
Long term exposure to any respirable mineral dust could cause effects in the respiratory system. Airborne dust may cause irritation to the eyes.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS-No.</th>
<th>Content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMORPHOUS SILICA</td>
<td>231-545-4</td>
<td>7631-86-9</td>
<td>~45%</td>
<td>-</td>
</tr>
<tr>
<td>MULLITE</td>
<td>215-113-2</td>
<td>1302-93-8</td>
<td>~55%</td>
<td>-</td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS
Mullite grades are formed by the calcination of naturally occurring china clay (also known as kaolin). Calcination causes the china clay to undergo a gradational phase change from natural china clay to metakaolin, then alteration to an amorphous defect spinel structure and then Mullite. A proportion of the quartz may become available in the respirable fraction. The level of exposure to respirable silica will depend on the actions performed on the product during handling and use. Exposure levels should, therefore, be measured during use, in comparison to relevant occupational exposure limits, as exposure cannot be determined from bulk product analysis.

4 FIRST-AID MEASURES

INHALATION
Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION
Rinse mouth thoroughly. Get medical attention if any discomfort continues.

SKIN CONTACT
Wash skin with soap and water.

EYE CONTACT
Rinse with water. Contact physician if discomfort continues.

5 FIRE-FIGHTING MEASURES
Molochite

EXTINGUISHING MEDIA
The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS
Avoid discharge into drains, water courses or onto the ground.

SPILL CLEAN UP METHODS
Collect spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Mix slurry with dry, inert, absorbent solid and collect for disposal.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS
Avoid handling which leads to dust formation. No special precautions are required when handling slurries.

STORAGE PRECAUTIONS
Store in a dry covered area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Name</th>
<th>Std</th>
<th>LT - ppm</th>
<th>LT - mg/m^3</th>
<th>ST - ppm</th>
<th>ST - mg/m^3</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMORPHOUS SILICA</td>
<td>WEL</td>
<td>2.4 mg/m^3 resp.dust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUARTZ</td>
<td>WEL</td>
<td>0.1 mg/m^3 resp.dust</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INGREDIENT COMMENTS
WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT

ENGINEERING MEASURES
Provide adequate ventilation. Observe Workplace Exposure Limits and minimise the risk of inhalation of dust.

RESPIRATORY EQUIPMENT
No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION
For prolonged or repeated skin contact use suitable protective gloves.

EYE PROTECTION
Wear approved safety goggles. Contact lenses should not be worn when working with this product.

HYGIENE MEASURES
Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.

9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLOUR</td>
<td>White</td>
</tr>
<tr>
<td>ODOUR</td>
<td>Almost odourless</td>
</tr>
<tr>
<td>SOLUBILITY</td>
<td>Insoluble in water</td>
</tr>
</tbody>
</table>

10 STABILITY AND REACTIVITY

STABILITY
Stable under normal temperature conditions and recommended use.

11 TOXICOLOGICAL INFORMATION
GENERAL INFORMATION
This product has low toxicity. Only large volumes may have adverse impact on human health.

INHALATION
Dust may irritate respiratory system or lungs.

INGESTION
No harmful effects expected in amounts likely to be ingested by accident.

SKIN CONTACT
Prolonged contact may cause dryness of the skin.

EYE CONTACT
Particles in the eyes may cause irritation and smarting.

12 ECOLOGICAL INFORMATION

ECOTOXICITY
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>LC 50, 96 Hrs, FISH mg/l</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC 50, 48 Hrs, DAPHNIA, mg/l</td>
<td>1</td>
</tr>
<tr>
<td>IC 50, 72 Hrs, ALGAE, mg/l</td>
<td>100</td>
</tr>
</tbody>
</table>

MOBILITY
The product is insoluble in water.

BIOACCUMULATION
The product does not contain any substances expected to be bioaccumulating.

DEGRADABILITY
The product is not biodegradable.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION
This mineral can be disposed of as non-toxic/inactive material in approved landfill sites in accordance with local regulations.

14 TRANSPORT INFORMATION

GENERAL
The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

15 REGULATORY INFORMATION

RISK PHRASES
NC Not classified.

SAFETY PHRASES
NC Not classified.

UK REGULATORY REFERENCES

STATUTORY INSTRUMENTS
Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE
Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES
Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS
Section 2 Adjusted to include additional phrases regarding health affects of Quartz. Section 3 adjusted to include dust recommendations.

REVISION DATE 09/11/2007

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DISCLAIMER

The information contained in this Safety Data Sheet supersedes all previous such sheets and is based upon the Company's current knowledge at the date of preparation. It is given in good faith, without any warranty, expressed or implied, regarding its correctness or completeness. The conditions or methods of handling, storage, use or disposal of the product are beyond our knowledge.

It is the sole responsibility of the user to take all precautions required in handling the product.

The information contained in this Material Safety Data Sheet does not constitute an assessment of workplace risks.