1 Identification of substance:

Product details:

Trade name: Lithofin KLF
Application of the substance / the preparation Cleaning agent / cleaner

Distributor:
GranQuartz, L. P.
P.O. Box 2206
Tucker, GA 30085-2206/USA

Information Department:
see above

Emergency Information:
information department

24-Hour Emergency Telephone Number:
1-800-255-3924 (USA & Canada) or 813-248-0585

2 Composition/Data on components:

Chemical characterization
Description: Cleaner with fluorides

Dangerous components:
16949-65-8 magnesium hexafluorosilicate  2.5-10 %
TSCA
All ingredients are listed.

3 Hazards identification

Hazard description: Harmful
Information pertaining to particular dangers for man and environment
May be irritant to eyes, respiratory tract, skin and mucous membranes.
Harmful if swallowed.

Classification system
The classification is in line with internationally approved calculation standards. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

NFPA ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0
Special: Acid

4 First aid measures

General information
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

After skin contact
Clean effected skin thoroughly with water and a mild cleansing agent.
No residues shall remain on the skin.
If skin irritation continues, consult a doctor.
After eye contact
Rinse opened eye for several minutes under running water.
Seek medical treatment.

After swallowing
Rinse out mouth and then drink plenty of water.
Do not induce vomiting
Never give anything by mouth to a unconscious person.
Seek medical treatment.

5 Fire fighting measures

Suitable extinguishing agents
The product is not combustible and does not support combustion.
Use fire fighting measures that suit the environment.

Special hazards caused by the material, its products of combustion or resulting gases:
Hydrogen fluoride (HF)

Protective equipment:
Wear self-contained respiratory protective device.

Additional information
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Person-related safety precautions:
Ensure adequate ventilation
Wear protective clothing.

Measures for environmental protection:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to penetrate the ground/soil.
In case of seepage into the ground inform responsible authorities.

Measures for cleaning/collection:
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

7 Handling and storage

Handling
Information for safe handling:
Use only in well ventilated areas.
Avoid contact with eyes and skin.

Information about protection against explosions and fires:
No special measures required.

Storage
Requirements to be met by storerooms and receptacles:
Store receptacles tightly closed at a cool and dry place with sufficient ventilation

Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from feed.

Further information about storage conditions: Protect from frost.

8 Exposure controls and personal protection

Additional information about design of technical systems:
No further data; see item 7.
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:
The lists that were valid during the creation were used as basis.

Personal protective equipment
General protective and hygienic measures
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat or drink while working.
The usual protective measures based on the application have to be followed.
All protective equipment used shall be according to 29 CFR.1910 Subpart I Personal Protective Equipment
Breathing equipment:
Not necessary if room is well-ventilated.
Short term filter device:
Gas filter: E (colour code yellow)
A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator’s use.
Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Protection of hands:
Wear chemically resistant protective gloves (tested according to DIN EN 374)
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
After use of gloves apply skin-cleaning agents and skin cosmetics.
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Chemical safety goggles
Body protection: Acid resistant protective clothing

9 Physical and chemical properties:

General Information

Form: Liquid
Color: Whitish
Odor: Nearly odorless

<table>
<thead>
<tr>
<th>Change in condition</th>
<th>Value/Range</th>
<th>Unit</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
<td>undetermined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>&gt; 90 °C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Flash point: Not applicable
Auto igniting: Product is not self igniting.
Danger of explosion: Product does not present an explosion hazard.
Density: at 20 °C ~ 1.0 g/cm³
Solubility in / Miscibility with Water: Fully miscible

pH-value: at 20 ° C 1-4

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.
Materials to be avoided: Metals
Dangerous reactions Reacts with metals forming hydrogen
Dangerous products of decomposition:
In the case of fire or at high temperatures the formation of the following decomposition products is possible: Hydrogen fluoride

11 Toxicological information

Acute toxicity:
LD/LC50 values that are relevant for classification:
No toxicity data are available for the product itself.
Primary irritant effect:
on the skin: Irritation to skin and mucous membrane possible.
on the eye: Irritation to the eyes is possible.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product shows the following dangers according to internationally approved calculation methods for preparations: Harmful

12 Ecological information:

Ecotoxic effects:
Aquatic toxicity:
Presently there are no ecotoxicological values available.
General notes:
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

Product:
Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Disposal according to instructions of local authorities.

Uncleaned packageings:
Recommendation:
Disposal must be made according to official regulations.

14 Transport information

DOT regulations:
Hazard class: 6.1
Identification number: UN3287
Packing group: III
Proper shipping name (technical name):
TOXIC LIQUID, INORGANIC, N.O.S. (magnesium hexafluorosilicate)
Label
6.1

Land transport ADR/RID (cross-border)
Material Safety Data Sheet
Printed: 25.01.2007
Revised: 25.01.2007
Lithofin KLF

ADR/RID class: 6.1 (T4) Toxic substances
Danger code (Kemler): 60
UN-Number: 3287
Packaging group: III
Label: 6.1
Description of goods: 3287 TOXIC LIQUID, INORGANIC, N.O.S. (magnesium hexafluorosilicate)

Maritime transport IMDG:
IMDG Class: 6.1
UN Number: 3287
Label: 6.1
Packaging group: III
EMS Number: F-A,S-A
Marine pollutant: No
Proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (magnesium hexafluorosilicate)

Air transport ICAO-TI and IATA-DGR:
ICAO/IATA Class: 6.1
UN/ID Number: 3287
Label: 6.1
Packaging group: III
Proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (magnesium hexafluorosilicate)

15 Regulations

Cancerogenity categories
EPA (Environmental Protection Agency)
void
IARC (International Agency for Research on Cancer)
void
NTP (National Toxicology Program)
void
TLV (Threshold Limit Value established by ACGIH)
void
MAK (German Maximum Workplace Concentration)
void
NIOSH-Ca (National Institute for Occupational Safety and Health)
void
OSHA-Ca (Occupational Safety & Health Administration)
void

Markings according to EU guidelines:
The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product: Harmful
Hazard-determining components of labelling: magnesium hexafluorosilicate
Risk phrases: Harmful if swallowed.
Safety phrases:
Keep locked up and out of the reach of children.
Keep away from food, drink and animal feedingstuffs.
Do not breathe aerosol
Wear suitable protective clothing.
If swallowed, seek medical advice immediately and show this container or label.
Dispose of this material and its container at hazardous or special waste collection point.
Regulation or reporting requirements USA
Sara section 355
not listed
Sara section 313
not listed
Prop. 65 - Cancer
not listed
Prop. 65 - Repr. tox.
not listed

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.

Department issuing MSDS:
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