SECTION 1. IDENTIFICATION

Product Name: Aluminum Silicate

Product Number: All applicable American Elements product codes, e.g. AL-SIAT-02-P.2HYD 02, AL-SIAT-025-P.2HYD 025, AL-SIAT-03-P.2HYD 03, AL-SIAT-035-P.2HYD 035, AL-SIAT-04-P.2HYD 04, AL-SIAT-05-P.2HYD 05

CAS #: 1332-58-7

Relevant identified uses of the substance: Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements
Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS
This product contains less than 1% respirable crystalline silica (RCS).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Formula: Al2Si2O5(OH)4
CAS-No.: 1332-58-7 / 12068-50-7

SECTION 4. FIRST AID MEASURES
Description of first aid measures
General advice
Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact
Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2 and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
No data available
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapours, mist or gas.
For personal protection see section 8.
Environmental precautions
No special environmental precautions required.
Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place.
Storage class (TRGS 510): Non Combustible Solids
Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

<table>
<thead>
<tr>
<th>SECTION 8. EXPOSURE CONTROLS/PERSOAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control parameters</td>
</tr>
<tr>
<td>Components with workplace control parameters</td>
</tr>
<tr>
<td>Component</td>
</tr>
<tr>
<td>CAS-No.</td>
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<tr>
<td>Value</td>
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<tr>
<td>Control parameters</td>
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<tr>
<td>Basis</td>
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<tr>
<td>Kaolin</td>
</tr>
<tr>
<td>1332-58-7</td>
</tr>
<tr>
<td>TWA</td>
</tr>
<tr>
<td>2.000000 mg/m3</td>
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<tr>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
</tr>
<tr>
<td>Pneumoconiosis</td>
</tr>
<tr>
<td>The value is for particulate matter containing</td>
</tr>
<tr>
<td>no asbestos and &lt; 1% crystalline silica</td>
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<tr>
<td>Not classifiable as a human carcinogen</td>
</tr>
<tr>
<td>TWA</td>
</tr>
<tr>
<td>5.000000 mg/m3</td>
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<tr>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td>Main constituent of Kaolin is Kaolinite (Al2Si2O5(OH)4).</td>
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<tr>
<td>TWA</td>
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<tr>
<td>10.000000 mg/m3</td>
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<td>USA. NIOSH Recommended Exposure Limits</td>
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<tr>
<td>Main constituent of Kaolin is Kaolinite (Al2Si2O5(OH)4).</td>
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<tr>
<td>TWA</td>
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<tr>
<td>15.000000 mg/m3</td>
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<tr>
<td>USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td>TWA</td>
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<tr>
<td>5.000000 mg/m3</td>
</tr>
<tr>
<td>USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td>PEL 2 mg/m3</td>
</tr>
</tbody>
</table>

California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
No special environmental precautions required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance
Form: Nanopowder

Odor
No data available

Odor Threshold
No data available

pH
No data available

Melting point/freezing point
No data available

Initial boiling point and boiling range
No data available

Flash point
No data available

Evaporation rate
No data available

Flammability (solid, gas)
No data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available
Conditions to avoid
No data available
Incompatible materials
Strong oxidizing agents
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions.-Aluminum oxide, silicon oxides
Other decomposition products-No data available
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
No data available
Inhalation: No data available
Dermal: No data available
No data available
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
Reproductive toxicity
No data available
No data available
Specific target organ toxicity -single exposure
No data available
Specific target organ toxicity -repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS: GF1670500
Stomach-Irregularities-Based on Human Evidence
Stomach-Irregularities-Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION
Toxicity
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION
DOT (US)
Not dangerous goods
IMDG
SECTION 15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Chronic Health Hazard

Massachusetts Right To Know Components
Kaolin
CAS-No.
1332-58-7
Revision Date
2007-03-01

Pennsylvania Right To Know Components
Kaolin
CAS-No.
1332-58-7
Revision Date
2007-03-01

New Jersey Right To Know Components
Kaolin
CAS-No.
1332-58-7
Revision Date
2007-03-01

SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.