Section 1: Product and Company Identification

Catalogue#: SD-995-2
Product Name: Silicon Dioxide, Silica (SiO₂)
CAS No. 7631-86-9
EC No. 231-545-4
Emergency Phone Number: 1-520-514-1100

Contact Information:
AdValue Technology, LLC
3158 S. Chrysler Ave.
Tucson, AZ 85713
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Section 2: Hazard Identification

Health Hazard
• May cause damage to the lung and the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalative.
• Hazards not otherwise classified No information known.

Precautionary Statements
• Do not breathe dust/fume/gas/mist/vapours/spray.
• Get medical advice/attention if you feel unwell.
• Dispose of contents/container in accordance with local/regional/national/international regulations.

Health (acute effects) = 1
Flammability = 0
Physical Hazard = 0
Section 3: Composition/Information on Ingredients

Typical Chemical Sheet of Raw Material

<table>
<thead>
<tr>
<th></th>
<th>Al</th>
<th>Fe</th>
<th>Ca</th>
<th>Mg</th>
<th>Cu</th>
<th>Mn</th>
<th>Cr</th>
<th>Ni</th>
<th>Na</th>
<th>Li</th>
<th>K</th>
<th>SiO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>0.2</td>
<td>0.6</td>
<td>0.05</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
<td>0.3</td>
<td>0.6</td>
<td>0.4</td>
<td></td>
<td>&gt;99.995%</td>
</tr>
</tbody>
</table>

Section 4: First-Aid Measures

<table>
<thead>
<tr>
<th>Entry Routes</th>
<th>First Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Supply Fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Seek medical treatment</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Rinse opened eye for several minutes under running water. Then consult a doctor.</td>
</tr>
</tbody>
</table>

Information for Doctor

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

Section 5: Fire and Explosion Data

<table>
<thead>
<tr>
<th>Fire:</th>
<th>Not considered to be a fire hazard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion:</td>
<td>Not considered to be an explosion hazard.</td>
</tr>
<tr>
<td>Fire Extinguishing Media:</td>
<td>Use any means suitable for extinguishing surrounding fire.</td>
</tr>
</tbody>
</table>
Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions: Do not allow product to reach sewage system or any water course.
Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13.
Prevention of secondary hazards: No special measures required.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7: Handling and Storage

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires: The product is not flammable.

Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: No information known.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Specific end use(s) No further relevant information available.
Section 8: Exposure Controls/Personal Protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters
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: No data

Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Penetration time of glove material (in minutes) Not determined
Eye protection: Safety glasses
Body protection: Protective work clothing.
Section 9: Physical and Chemical Properties

General Information

Appearance:
Form: Powder
Color: White
Odor: Odorless
Odor threshold: Not determined.
pH-value: Not applicable.

Change in condition
Melting point/Melting range: 1710 °C (3110 °F)
Boiling point/Boiling range: 2230 °C (4046 °F)
Sublimation temperature / start: Not determined

Flammability (solid, gaseous): Not determined.
Ignition temperature: Not determined
Decomposition temperature: Not determined
Auto igniting: Not determined.
Danger of explosion: Not determined.
Vapor pressure: Not applicable.
Density at 20 °C (68 °F): 2.2 g/cm³ (18.359 lbs/gal)
Solubility in / Miscibility with
Water: Insoluble
Partition coefficient (n-octanol/water): Not determined.

Other information
No further relevant information available.

Section 10: Stability and Reactivity

Reactivity: No information known.
Chemical stability: Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions: No dangerous reactions known
Conditions to avoid: No further relevant information available.
Incompatible materials: No information known.
Section 11: Toxicological Information

Information on toxicological effects
Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: May cause irritation
Eye irritation or corrosion: May cause irritation
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.
Carcinogenicity: IARC-3: Not classifiable as to carcinogenicity to humans.
Reproductive toxicity: No effects known.
Specific target organ system toxicity - repeated exposure: May cause damage to the lung and the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalative.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Section 12: Ecological Information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Additional ecological information:
General notes: Avoid transfer into the environment.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available

Section 13: Disposal Considerations

Waste treatment methods
Recommendation: Consult state, local or national regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.
Section 14: Transport Information

DOT Hazard Class: Not regulated material.
U.N. / N.A. Number: N/A

Section 15: Regulatory Information

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

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65
Prop 65 - Chemicals known to cause cancer Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.

Information about limitation of use: For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorization for use) Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
Section 16: Other Information

HMIS Rating:
Health 1, Flammability 0, Reactivity 0

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Version: 7-11-2016

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