# MATERIAL SAFETY DATA SHEET

**Nexterion® Slide A+**

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1 General Information

Manufacturer

SCHOTT Technical Glass Solutions GmbH
Otto-Schott-Straße 13
07745 Jena
Germany
Phone: +49-(0)3641-681-4069
Fax: +49-(0)3641-681-4970
E-Mail: coatedsubstrate@schott.com
www.schott.com/nexterion

Distributor for US, Canada, Mexico

Microarray Solutions
SCHOTT North America Inc.
5530 Shepherdsville Road
Louisville, KY 40228
USA
Phone: +1-502-6957-4417
Fax: +1-502-966-4976
E-Mail: coatedsubstrate@us.schott.com
www.us.schott.com/nexterion

Product Name: Nexterion Slide A+
Chemical Name: Aminosilane Coated Borosilicate Glass
C.A.S. Number: None
2 Composition / information on ingredients

<table>
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<tr>
<th>Chemical Name</th>
<th>Percent</th>
<th>Reg.* (Y/N)</th>
<th>Cas#</th>
<th>OSHA (PEL)</th>
<th>ACGIH (TLV)</th>
<th>Carc. (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica</td>
<td>75 – 85</td>
<td>Y</td>
<td>014808607</td>
<td>0.1mg/m³</td>
<td>0.1mg/m³</td>
<td>N</td>
</tr>
<tr>
<td>Boron Oxide</td>
<td>10 – 20</td>
<td>Y</td>
<td>001303862</td>
<td>15mg/m³</td>
<td>10mg/m³</td>
<td>N</td>
</tr>
<tr>
<td>Alumina</td>
<td>1 – 5</td>
<td>Y</td>
<td>001344281</td>
<td>15mg/m³</td>
<td>10mg/m³</td>
<td>N</td>
</tr>
<tr>
<td>Sodium Oxide</td>
<td>1 – 5</td>
<td>Y</td>
<td>1313593</td>
<td>N/A</td>
<td>N/A</td>
<td>N</td>
</tr>
<tr>
<td>Potassium Oxide</td>
<td>0 – 2</td>
<td>N</td>
<td>12136457</td>
<td>N/A</td>
<td>N/A</td>
<td>N</td>
</tr>
</tbody>
</table>

*Regulated as per lists: OSHA 29CFR 1910 Subpart Z; ACGIH; NTP and IARC

One glass slide contains approximately 4 to 5 x10¹⁴ amino groups per cm² surface area.

3 Physical data

- Boiling Point: not applicable
- Vapor Pressure: not applicable
- Vapor Density: not applicable
- Solubility in Water: not applicable
- Specific gravity: 2.2 – 2.3 g/cm³
- Melting Range: 510 – 550°C
- Physical State: solid with a density between 2.2 to 2.3 g/cm³
- Appearance and odor: in plates with various thickness, no odor

4 Fire and explosion hazard data

- Flash Point: not applicable
- Auto Ignition Temperature: not applicable
- Flammable Limits % Vol. in Air: not applicable
- Extinguishing Media: non-combustible material
- Special Fire Fighting Procedures: Use extinguishing media that is appropriate for the classification of surrounding fire. Inorganic glass is non-combustible.
- Unusual Fire and Explosion Hazards: There is the possibility of flying glass fragments if hot glass comes in contact with water or carbon dioxide extinguishing media.
5 Health hazard data

Inhalation: Acute: Respiratory irritation. Chronic: Possible pneumoconiosis effects

Ingestion: Ingestion's may cause vomiting, diarrhea, depressed circulation and in severe cases shock, coma, paralysis and cyanosis.

Skin: Ground glass particles and dust may cause irritation.

Eye: May cause irritation.

First Aid: Inhalation: Remove to fresh air. Seek medical attention.
Ingestion: Seek medical attention.

Skin: Wash wit soap and water. Seek medical attention if irritation permits.

Eye: Flush well with running water. Seek medical attention if irritation permits.

6 Spill, leak and disposal

Spill or Leak Procedures: No special precautions.
7 Special protection information

Engineering Controls: Use local exhaust ventilation, hood or equipment enclosure to avoid dispersal of fibrous or other glass particulars into the workplace air.

Personal Protective Equipment: Respiratory - if glass dust or particulars are above the OSHA permissible exposure limits use a NIOSH approved respirator for dust and fibers. Eye protection – industrial safety glasses that meet ANSI Z87 standards. Protective gloves – recommended gloves for protection from sharp edges.

8 Special precautions and comments

Reactivity: Borosilicate glass is a stable material. As a particular chemically resistant glass it is inert to many chemicals (including acidic and basic solutions), but it may react to hot, strong alkaline solutions and – like all glasses - with concentrated very aggressive hydrofluoric and phosphoric acids. Hazardous decomposition or byproducts may emit metal oxide fumes when heated to high temperatures.

Comments: Inorganic borosilicate glass is an amorphous, inorganic, usually transparent or translucent substance, consisting of a mixture of silicates, alkaline components, and/or borates formed by fusion of silica and various types of oxides with a flux and a stabilizer into a mass that cools to a rigid condition without crystallization.
9 Special precautions and comments

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Abbreviations used:
ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act
CFR: Code of Federal Regulations
DSL: Canadian Domestic Substance List
EPA: Environmental Protection Agency
HEPA: high Efficiency Particulate Air
HMIS: Hazardous Material Identification System
IARC: International Agency for Research on Cancer
NDSL: Non Canadian Domestic Substance List
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
RCRA: Resource Conservation and Recovery Act
RQ: Reportable Quantities
SARA: Superfund Amendments and Reauthorization Act
TLV: Threshold Limit Value
TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
WHMIS: workplace Hazardous Materials Information System