Safety Data Sheet

This Safety Data Sheet (SDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a SDS is not required for this product by the OSHA Hazard Communication Standard (29 CFR 1910.1200) because, when used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

SECTION 1: Identification

1.1. Product identifier
3M™ Nextel™ Ceramic Fiber 720 with Organic Sizing

Product Identification Numbers
7100002648, 7100053430, 7010402887, 7100042149, 7100048602, 7100033643, 7010320554, 7010400930, 7010353187, 7010400937, 7100044591, 7100077739, 7100077471, 7010402898, 7010353193, 7100117200, 7100094846, 4100040575, 7010400485, 7010400486, 7010400487, 7010400488, 7010352807, 7010321437, 7100192329, 7100192327, 7100192325, 7100189956, 7100400489, 7100191427, 7100214976, 7100217193

1.2. Recommended use and restrictions on use

Recommended use
Reinforcement Fiber

1.3. Supplier’s details

MANUFACTURER: 3M
DIVISION: Advanced Materials Division
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.
2.2. Label elements
Signal word
Not applicable.

Symbols
Not applicable.
Pictograms
Not applicable.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminasilicate Fibers</td>
<td>1327-36-2</td>
<td>95 - 100</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
No need for first aid is anticipated.

Skin Contact:
No need for first aid is anticipated.

Eye Contact:
No need for first aid is anticipated.

If Swallowed:
No need for first aid is anticipated.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Not applicable.
6.2. Environmental precautions
Not applicable.

6.3. Methods and material for containment and cleaning up
Not applicable.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin contact with hot material. Avoid breathing of dust created by cutting, sanding, grinding or machining. This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

7.2. Conditions for safe storage including any incompatibilities
Not applicable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum, insoluble compounds</td>
<td>1327-36-2</td>
<td>ACGIH</td>
<td>TWA(respirable fraction):1 mg/m3</td>
<td>A4: Not class. as human carcin</td>
</tr>
</tbody>
</table>

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety Glasses with side shields

Skin/hand protection
No chemical protective gloves are required.

Respiratory protection
Respiratory protection is not required.

Thermal hazards
Wear heat insulating gloves when handling hot material to prevent thermal burns.

**SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Odorless</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>&gt;=1800 °C</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>No flash point</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not Classified</td>
</tr>
<tr>
<td><strong>Flammable Limits(LEL)</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Flammable Limits(UEL)</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>3.03 - 3.94 g/cm³</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>3.03 - 3.94  [Ref Std: WATER=1]</td>
</tr>
<tr>
<td><strong>Solubility In Water</strong></td>
<td>0.5 - 3.5 %</td>
</tr>
<tr>
<td><strong>Solubility- non-water</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/ water</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Volatile Organic Compounds</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Percent volatile</strong></td>
<td>0.5 - 3.5 % weight</td>
</tr>
<tr>
<td><strong>VOC Less H2O &amp; Exempt Solvents</strong></td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products are not expected.
products may occur as a result of oxidation, heating, or reaction with another material.

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation:**
Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Skin Contact:**
Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

**Eye Contact:**
Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

**Ingestion:**
Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

**Additional Health Effects:**
Due to their large size (7-15 microns in diameter), Nextel(TM) Ceramic Fibers do not meet the definition of respirable as defined by WHO convention and ECHA. Because Nextel fibers are considered non-respirable, they are not expected to pose a cancer risk.

**Additional Information:**
This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards. Due to their large size (7-15 microns in diameter), Nextel(TM) Ceramic Fibers do not meet the definition of respirable as defined by WHO convention and ECHA. Because Nextel fibers are considered non-respirable, they are not expected to pose a cancer risk.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Aluminasilicate Fibers</td>
<td>Dermal</td>
<td></td>
<td>LD50 estimated to be &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Aluminasilicate Fibers</td>
<td>Ingestion</td>
<td></td>
<td>LD50 estimated to be &gt;5,000 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**
For the component/components, either no data are currently available or the data are not sufficient for classification.
Serious Eye Damage/Irritation  
For the component/components, either no data are currently available or the data are not sufficient for classification.

Skin Sensitization  
For the component/components, either no data are currently available or the data are not sufficient for classification.

Respiratory Sensitization  
For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity  
For the component/components, either no data are currently available or the data are not sufficient for classification.

Carcinogenicity  
For the component/components, either no data are currently available or the data are not sufficient for classification.

Reproductive Toxicity

Reproductive and/or Developmental Effects
For the component/components, either no data are currently available or the data are not sufficient for classification.

Target Organ(s)

Specific Target Organ Toxicity - single exposure
For the component/components, either no data are currently available or the data are not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure
For the component/components, either no data are currently available or the data are not sufficient for classification.

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information
Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information
Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.
EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory Information

15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:
Physical Hazards
Not applicable

Health Hazards
Not applicable

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other Information

NFPA Hazard Classification
Health: 0  Flammability: 0  Instability: 0  Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 0  Flammability: 0  Physical Hazard: 0  Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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