



## Safety Data Sheet

Copyright, 2024, 3M India Limited. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

This product is defined as an article as per the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200(b)(6)(v)). As defined in this Standard:

'Article' means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and which does not pose a physical hazard or health risk to employees.

When used under reasonable conditions and in accordance with the directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

<b>Document group:</b>	20-4774-4	<b>Version number:</b>	1.02
<b>Issue Date:</b>	16/04/2024	<b>Supersedes date:</b>	20/07/2021

This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Nextel™ Ceramic Fibre 440 with Organic Sizing

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Ceramic Fibre

#### 1.3. Supplier's details

<b>Address:</b>	3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100
<b>Telephone:</b>	080-45543000, contact Product EHS team
<b>E Mail:</b>	productehs.in@mmm.com
<b>Website:</b>	<a href="http://solutions.3mindia.co.in">http://solutions.3mindia.co.in</a>

#### 1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

### SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

#### 2.1. Classification of the substance or mixture

This product is considered to be an article and is exempt from GHS classification.

**2.2. Label elements****Signal Word**

Not applicable.

**Symbols**

Not applicable

**Pictograms**

Not applicable

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients**

This material is a mixture.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>% by Wt</b>
Aluminoborosilicate Fibers	12788-79-3	> 95
Organic sizing	Trade Secret	< 5

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. Get medical attention.

**Skin contact**

If exposed, wash with soap and water. If signs/symptoms develop, get medical attention.

**Eye contact**

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

**If swallowed**

Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

No critical symptoms or effects. 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.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Organic sizing	Trade Secret	AIHA	TWA: 10 mg/m <sup>3</sup>	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Not applicable.

#### 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

None required.

#### Thermal hazards

Wear heat insulating gloves, indirect vented goggles, and a full face shield when handling hot material to prevent thermal burns.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid.
Color	White
Odor	Odourless
Odour threshold	<i>Not applicable.</i>
pH	<i>Not applicable.</i>
Melting point/Freezing point: NA	$\geq 1,800$ °C
Boiling point/Initial boiling point/Boiling range	<i>Not applicable.</i>
Flash point	No flash point
Evaporation rate	<i>Not applicable.</i>
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Vapour pressure	<i>Not applicable.</i>
Vapor Density and/or Relative Vapor Density	<i>Not applicable.</i>
Density	2.7 - 3.05 g/cm <sup>3</sup>
Relative density	2.7 - 3.05 [Ref Std: WATER=1]
Water solubility	0.5 - 3.5 % [Details: CONDITIONS: 0.5-3.5% BY WEIGHT]
Solubility- non-water	<i>Not applicable.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>Not applicable.</i>
Viscosity/Kinematic Viscosity	<i>Not applicable.</i>
Volatile organic compounds (VOC)	<i>No data available.</i>
Percent volatile	<i>No data available.</i>
VOC less H <sub>2</sub> O & exempt solvents	<i>No data available.</i>
Molecular weight	<i>No data available.</i>

## 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 polymerisation will not occur.

### 10.4 Conditions to avoid

None known.

### 10.5 Incompatible materials

None known.

**10.6 Hazardous decomposition products****Substance**

Carbon monoxide.  
Irritant vapours or gases.

**Condition**

At elevated temperatures.  
At elevated temperatures.

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition 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 labelling, 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**

Vapours from heated material may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, 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 3M 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 Ceramic Fibers are considered non-respirable and, therefore, are not expected to pose a cancer risk. Fibers are defined as respirable by ECHA as having a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (µm). Nextel fibers do not meet this condition.

**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.

**Acute Toxicity**

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Organic sizing	Dermal	Rabbit	LD50 > 20,000 mg/kg
Organic sizing	Ingestion	Rat	LD50 32,770 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro data	No significant irritation
Aluminoborosilicate Fibers	In vitro data	No significant irritation
Organic sizing	Rabbit	Minimal irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
Organic sizing	Rabbit	Mild irritant

#### Sensitization:

##### Skin Sensitisation

Name	Species	Value
Organic sizing	Guinea pig	Not classified

#### Respiratory Sensitisation

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

#### Germ Cell Mutagenicity

Name	Route	Value
Organic sizing	In Vitro	Not mutagenic
Organic sizing	In vivo	Not mutagenic

#### Carcinogenicity

Name	Route	Species	Value
Organic sizing	Ingestion	Rat	Not carcinogenic

#### Reproductive Toxicity

##### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Organic sizing	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,125 mg/kg/day	during gestation
Organic sizing	Ingestion	Not classified for male reproduction	Rat	NOAEL 5699 +/- 1341 mg/kg/day	5 days
Organic sizing	Not specified.	Not classified for reproduction and/or development		NOEL N/A	
Organic sizing	Ingestion	Not classified for development	Mouse	NOAEL 562 mg/animal/day	during gestation

#### Target Organ(s)

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Organic sizing	Inhalation	respiratory irritation	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Organic sizing	Inhalation	respiratory system	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks
Organic sizing	Ingestion	kidney and/or bladder   heart   endocrine system   hematopoietic system   liver   nervous system	Not classified	Rat	NOAEL 5,640 mg/kg/day	13 weeks

**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**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

**12.1. Toxicity****Acute aquatic hazard:**

Not acutely toxic to aquatic life by GHS criteria.

**Chronic aquatic hazard:**

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Aluminoborosilicate Fibers	12788-79-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Organic sizing	Trade Secret	Activated sludge	Experimental	N/A	EC50	>1,000 mg/l
Organic sizing	Trade Secret	Atlantic Salmon	Experimental	96 hours	LC50	>1,000 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminoborosilicate Fibers	12788-79-3	Data not available-insufficient	N/A	N/A	N/A	N/A
Organic sizing	Trade Secret	Experimental	28 days	BOD	53 %BOD/ThOD	OECD 301C - MITI test (I)

		Biodegradation				
--	--	----------------	--	--	--	--

### 12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminoborosilicate Fibers	12788-79-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Organic sizing	Trade Secret	Estimated Bioconcentration		Bioaccumulation factor	2.3	

### 12.4. Mobility in soil

Please contact manufacturer for more details

### 12.5 Other Adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility.

## SECTION 14: Transport Information

Not hazardous for transportation.

### Air Transport (IATA) Regulations

**UN No** Not applicable

**Proper Shipping Name** Not applicable

**Hazard Class/Division** Not applicable

**Subsidiary Risk** Not applicable

**Packing Group:** Not applicable

### Marine Transport (IMDG)

**UN No** Not applicable

**Proper Shipping Name** Not applicable

**Hazard Class/Division** Not applicable

**Subsidiary Risk** Not applicable

**Packing Group:** Not applicable

**Environmental Hazards:** Not applicable

## SECTION 15: Regulatory information

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

#### Global inventory status

Contact 3M for more information.

#### Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

Hazardous Waste(Management , Handling & Transboundary) Rules, 2008

Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011



The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules  
None.

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:  
The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

## **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.

### **Revision information:**

Section 1: Product identification numbers information was deleted.  
Section 02: GHS Classification Statements information was added.  
Section 02: GHS Pictogram Not Applicable information was added.  
Section 02: GHS Signal Word - Not applicable information was added.  
Section 02: GHS Symbol Text - Not applicable information was added.  
Label: GHS Classification information was deleted.  
Label: Graphic information was deleted.  
Section 4: First aid for eye contact information information was modified.  
Section 4: First aid for ingestion (swallowing) information information was modified.  
Section 4: First aid for inhalation information information was modified.  
Section 4: First aid for skin contact information information was modified.  
Section 8: Personal Protection - Thermal hazards information information was modified.  
Section 09: Nanoparticle information was deleted.  
Section 09: Percent Volatile information was modified.  
Section 11: Reproductive Toxicity Table information was modified.  
Section 12: Component ecotoxicity information information was modified.  
Section 12: Persistence and Degradability information information was modified.  
Section 12: Bioaccumulative potential information information was modified.

**DISCLAIMER:** The information in this Safety Data Sheet (SDS) is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into India, you are responsible to comply with all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

**3M India SDSs are available at <http://solutions.3mindia.co.in>**