

# **Safety Data Sheet**

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

1.00 **Document group:** 23-3573-5 Version number:

**Issue Date:** 14/02/2020 Supersedes date: Initial issue.

# **IDENTIFICATION**

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ XT REGULAR BODY Refill

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

#### Recommended use

Dental material, Impression material

# Restrictions on use

For use by dental professionals only.

### 1.3. Supplier's details

Address: 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059

**Telephone:** +65 6450 8888 Website: www.3m.com.sg

## 1.4. Emergency telephone number

Company Emergency Hotline: +65 6591 6888 (8.15am - 5.00pm, Monday - Friday)

This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:

22-6315-0, 22-6322-6

# TRANSPORT INFORMATION

### **International Regulations**

**UN No.:** None assigned

UN Proper shipping name: None assigned Transportation Class (IMO): None assigned Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned

# 3MTM ESPETM EXPRESSTM XT REGULAR BODY Refill

Packing Group: None assigned Marine pollutant: None assigned

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3M Singapore SDSs are available at www.3m.com.sg

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# **Safety Data Sheet**

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

**Document group:** 22-6315-0 **Version number:** 2.00

**Issue Date:** 28/08/2024 **Supersedes date:** 14/02/2020

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Express<sup>TM</sup> XT Regular Body Base

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

#### Recommended use

Dental Product, Dental impression material

## Restrictions on use

For use by dental professionals only.

#### 1.3. Supplier's details

Address: 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059

**Telephone:** +65 6450 8888 **Website:** www.3m.com.sg

#### 1.4. Emergency telephone number

+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

# **SECTION 2: Hazard identification**

### 2.1. Classification of the substance or mixture

This product is not classified as hazardous per GHS criteria as implemented by Singapore Standard SS586: 2022.

# 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.

Ingredient	CAS Nbr	% by Wt
VINYL POLYDIMETHYLSILOXANE	68083-19-2	40 - 60
Cristobalite	14464-46-1	20 - 40
Dimethyl methyl hydrogen silicone fluid	68037-59-2	1 - 20
SILANE TREATED SILICA	67762-90-7	1 - 10
Glycols,polyethylene,methyl 3-[1,3,3,3-	27306-78-1	< 5
tetramethyl-1-		
(trimethylsiloxy)disiloxanyl]propyl ether		

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

#### Skin contact

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

#### Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### If swallowed

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

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

# 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

# **Hazardous Decomposition or By-Products**

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.During combustion.Irritant vapours or gases.During combustion.

# 5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Observe precautions from other sections.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

## 7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

# **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.

Tor the component.				
Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Cristobalite	14464-46-1	ACGIH	TWA(respirable	A2: Suspected human
			fraction):0.025 mg/m3	carcin.
Cristobalite	14464-46-1	Singapore PELs	TWA(as respirable dust)(8	
			hours):0.05 mg/m3	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

Singapore PELs: Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

#### 8.2. Exposure controls

## 8.2.1. Engineering controls

Use in a well-ventilated area.

## 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.

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# Skin/hand protection

See Section 7.1 for additional information on skin protection.

# **Respiratory protection**

None required.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

1 V	
Physical state	Solid.
Specific Physical Form:	Paste
Color	White
Odor	Odorless
Odour threshold	No data available.
pH	Not applicable.
Melting point/Freezing point	No data available.
Boiling point/Initial boiling point/Boiling range	Not applicable.
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	Not applicable.
Flammability	Not applicable.
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Vapour pressure	Not applicable.
Vapor Density and/or Relative Vapor Density	Not applicable.
Density	1.1 g/cm3 - 1.4 g/cm3
Relative density	> 1 [Ref Std:WATER=1]
Water solubility	Negligible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic Viscosity	No data available.
Volatile organic compounds (VOC)	Not applicable.
Percent volatile	Not applicable.
VOC less H2O & exempt solvents	Not applicable.

Particle Characteristics	Not applicable.
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# **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

# 10.2 Chemical stability

Stable.

# 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

# 3M<sup>TM</sup> Express<sup>TM</sup> XT Regular Body Base

Heat.

#### 10.5 Incompatible materials

Amines.

Strong bases.

Strong oxidising agents.

Strong acids.

# 10.6 Hazardous decomposition products

#### **Substance**

**Condition** 

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

# **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

No health effects are expected.

# Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

#### Eve contact

Contact with the eyes during product use is not expected to result in significant irritation.

#### **Ingestion**

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

#### **Additional Health Effects:**

## Carcinogenicity:

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

## **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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
VINYL POLYDIMETHYLSILOXANE	Dermal	Rabbit	LD50 > 15,440 mg/kg

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# 3M<sup>TM</sup> Express<sup>TM</sup> XT Regular Body Base

VINYL POLYDIMETHYLSILOXANE	Ingestion	Rat	LD50 > 15,440 mg/kg
Cristobalite	Dermal		LD50 estimated to be > 5,000 mg/kg
Cristobalite	Ingestion		LD50 estimated to be > 5,000 mg/kg
Dimethyl methyl hydrogen silicone fluid	Dermal	Rabbit	LD50 > 2,000 mg/kg
Dimethyl methyl hydrogen silicone fluid	Ingestion	Rat	LD50 > 2,000 mg/kg
SILANE TREATED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
SILANE TREATED SILICA	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
SILANE TREATED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-(trimethylsiloxy)disiloxanyl]propyl ether	Inhalation- Vapor	Professio nal judgeme nt	LC50 estimated to be 10 - 20 mg/l
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Dermal	Rat	LD50 > 2,000 mg/kg
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Inhalation- Dust/Mist (4 hours)	Rat	LC50 2 mg/l
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

# Skin Corrosion/Irritation

Name	Species	Value
VINYL POLYDIMETHYLSILOXANE	Rabbit	No significant irritation
Cristobalite	Professio nal judgemen t	No significant irritation
Dimethyl methyl hydrogen silicone fluid	Rabbit	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Schous Eye Damage/Hittation		
Name	Species	Value
VINYL POLYDIMETHYLSILOXANE	Rabbit	Mild irritant
Dimethyl methyl hydrogen silicone fluid	Rabbit	Mild irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Rabbit	Severe irritant
(trimethylsiloxy)disiloxanyl]propyl ether		

### **Sensitization:**

# **Skin Sensitisation**

Name	Species	Value
Dimethyl methyl hydrogen silicone fluid	Guinea	Not classified
	pig	
SILANE TREATED SILICA	Human	Not classified
	and	
	animal	
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Guinea	Not classified
(trimethylsiloxy)disiloxanyl]propyl ether	pig	

# **Respiratory Sensitisation**

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

# **Germ Cell Mutagenicity**

# 3M<sup>TM</sup> Express<sup>TM</sup> XT Regular Body Base

Name	Route	Value
Cristobalite	In Vitro	Some positive data exist, but the data are not sufficient for classification
Cristobalite	In vivo	Some positive data exist, but the data are not sufficient for classification
Dimethyl methyl hydrogen silicone fluid	In Vitro	Not mutagenic
SILANE TREATED SILICA	In Vitro	Not mutagenic
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	In Vitro	Not mutagenic
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Cristobalite	Inhalation	Human	Carcinogenic.
		and	
		animal	
SILANE TREATED SILICA	Not	Mouse	Some positive data exist, but the data are not
	specified.		sufficient for classification

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Ingestion	Not classified for female reproduction	Rat	NOAEL 450 mg/kg/day	premating into lactation
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg/day	28 days
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxanyl]propyl ether	Ingestion	Not classified for development	Rat	NOAEL 450 mg/kg/day	premating into lactation

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxany l]propyl ether	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
						Duration
Cristobalite	Inhalation	silicosis	Causes damage to organs through	Human	NOAEL Not	occupational
			prolonged or repeated exposure		available	exposure
SILANE TREATED	Inhalation	respiratory system	Not classified	Human	NOAEL Not	occupational
SILICA		silicosis			available	exposure
Glycols,polyethylene,meth	Dermal	skin	Not classified	Rat	NOAEL	9 days
yl 3-[1,3,3,3-tetramethyl-					1,551	
1-					mg/kg/day	
(trimethylsiloxy)disiloxany						

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l]propyl ether						
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl- 1- (trimethylsiloxy)disiloxany l]propyl ether	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.025 mg/l	9 days
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl- 1- (trimethylsiloxy)disiloxany l]propyl ether	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 110 mg/kg/day	90 days
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl- 1- (trimethylsiloxy)disiloxany l]propyl ether	Ingestion	liver   kidney and/or bladder   heart   gastrointestinal tract   hematopoietic system   nervous system   respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days

### **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
VINYL POLYDIMETHYL SILOXANE	68083-19-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cristobalite	14464-46-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Dimethyl methyl hydrogen silicone fluid	68037-59-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Glycols,polyethyle ne,methyl 3- [1,3,3,3- tetramethyl-1- (trimethylsiloxy)dis iloxanyl]propyl	27306-78-1	Green algae	Estimated	96 hours	EC50	32 mg/l

ether						
Glycols,polyethyle	27306-78-1	Rainbow trout	Estimated	96 hours	LC50	4.5 mg/l
ne,methyl 3-						
[1,3,3,3-						
tetramethyl-1-						
(trimethylsiloxy)dis						
iloxanyl]propyl						
ether						
Glycols,polyethyle	27306-78-1	Water flea	Estimated	48 hours	LC50	23.4 mg/l
ne,methyl 3-						
[1,3,3,3-						
tetramethyl-1-						
(trimethylsiloxy)dis						
iloxanyl]propyl						
ether						

# 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
VINYL POLYDIMETHYL SILOXANE	68083-19-2	Data not available- insufficient	N/A	N/A	N/A	N/A
Cristobalite	14464-46-1	Data not available- insufficient	N/A	N/A	N/A	N/A
Dimethyl methyl hydrogen silicone fluid	68037-59-2	Data not available- insufficient	N/A	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	Data not available- insufficient	N/A	N/A	N/A	N/A
Glycols,polyethyle ne,methyl 3- [1,3,3,3- tetramethyl-1- (trimethylsiloxy)dis iloxanyl]propyl ether	27306-78-1	Modeled Biodegradation	28 days	BOD	1 %BOD/ThOD	Catalogic™

# 12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
VINYL POLYDIMETHYL SILOXANE	68083-19-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cristobalite	14464-46-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl methyl hydrogen silicone fluid	68037-59-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycols,polyethyle ne,methyl 3- [1,3,3,3- tetramethyl-1- (trimethylsiloxy)dis iloxanyl]propyl ether	27306-78-1	Modeled Bioconcentration		Bioaccumulation factor	331	Catalogic™

### 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. 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.

# **SECTION 14: Transport Information**

## **International Regulations**

UN No.: None assigned

UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned

Packing Group: None assigned Marine pollutant: None assigned

# **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. The components of this product are in compliance with the new substance notification requirements of CEPA.

## This product may contain component(s) that are regulated by the following:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

# **SECTION 16: Other information**

DISCLAIMER: The information on this Safety Data Sheet 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 Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

## 3M Singapore SDSs are available at www.3m.com.sg

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# **Safety Data Sheet**

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

**Document group:** 22-6322-6 **Version number:** 2.00

**Issue Date:** 29/08/2024 **Supersedes date:** 14/02/2020

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Express<sup>TM</sup> XT Regular Body Catalyst

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

#### Recommended use

Dental Product, Impression material

#### Restrictions on use

For use by dental professionals only.

### 1.3. Supplier's details

Address: 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059

**Telephone:** +65 6450 8888 **Website:** www.3m.com.sg

#### 1.4. Emergency telephone number

+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

# **SECTION 2: Hazard identification**

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

This product is not classified as hazardous per GHS criteria as implemented by Singapore Standard SS586: 2022.

# 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.

Ingredient	CAS Nbr	% by Wt
VINYL POLYDIMETHYSILOXANE	68083-19-2	40 - 60
Cristobalite	14464-46-1	30 - 50
Poly(dimethylsiloxane)	63148-62-9	1 - 10
SILANE TREATED SILICA	67762-90-7	1 - 10
Cobalt chromite blue green spinel	68187-11-1	< 0.5

# **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

No need for first aid is anticipated.

#### Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### If swallowed

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

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

# 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

# **Hazardous Decomposition or By-Products**

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.During combustion.Irritant vapours or gases.During combustion.

### 5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

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Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

## 7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

# **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
Cristobalite	14464-46-1	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Cristobalite	14464-46-1	Singapore PELs	TWA(as respirable dust)(8 hours):0.05 mg/m3	
Chromium (III) oxide	68187-11-1	ACGIH	TWA(as Cr(III), inhalable fraction):0.003 mg/m3	A4: Not class. as human carcin
Chromium (III) oxide	68187-11-1	Singapore PELs	TWA(as Cr)(8 hours):0.5 mg/m3	
Cobalt, inorganic compounds	68187-11-1	ACGIH	TWA(as Co, inhalable fraction):0.02 mg/m3	A3: Confirmed animal carcin., Dermal/Respiratory Sensitizer
Cobalt, inorganic compounds	68187-11-1		TWA(as Co)(8 hours):0.02 mg/m3	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

Singapore PELs : Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

## 8.2. Exposure controls

# 8.2.1. Engineering controls

Use in a well-ventilated area.

# 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

See Section 7.1 for additional information on skin protection.

# **Respiratory protection**

None required.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Physical state Solid.  Specific Physical Form: Paste  Color Blue	
Color	
Color	
Color	
<b>Odor</b> Odorless	
Odour threshold No data availab	le.
pH Not applicable.	
Melting point/Freezing point No data availab	le.
<b>Boiling point/Initial boiling point/Boiling range</b> Not applicable.	
Flash point Flash point > 93	°C (200 °F)
<b>Evaporation rate</b> Not applicable.	
Flammability Not applicable.	
Flammable Limits(LEL)  Not applicable.	
Flammable Limits(UEL)  Not applicable.	
Vapour pressure Not applicable.	
Vapor Density and/or Relative Vapor Density  Not applicable.	
<b>Density</b> 1.2 g/cm3 - 1.5	g/cm3
	/ATER=1]
Water solubility Negligible	
Solubility- non-water No data availab	le.
Partition coefficient: n-octanol/water No data availab	le.
Autoignition temperature No data availab	le.
<b>Decomposition temperature</b> No data availab	
Kinematic Viscosity  No data availab	le.
Volatile organic compounds (VOC)  Not applicable.	
Percent volatile Not applicable.	
VOC less H2O & exempt solvents  Not applicable.	

Particle Characteristics	Not applicable.

# **SECTION 10: Stability and reactivity**

# **10.1 Reactivity**

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

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### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

Amines.

Strong acids.

Strong bases.

Strong oxidising agents.

# 10.6 Hazardous decomposition products

# **Substance**

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

# **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

No health effects are expected.

## Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

#### **Eve contact**

Contact with the eyes during product use is not expected to result in significant irritation.

### Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

#### **Additional Health Effects:**

### Carcinogenicity:

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

# **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

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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
VINYL POLYDIMETHYSILOXANE	Dermal	Rabbit	LD50 > 15,440 mg/kg
VINYL POLYDIMETHYSILOXANE	Ingestion	Rat	LD50 > 15,440 mg/kg
Cristobalite	Dermal		LD50 estimated to be > 5,000 mg/kg
Cristobalite	Ingestion		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
SILANE TREATED SILICA	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
SILANE TREATED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
Poly(dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Poly(dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Cobalt chromite blue green spinel	Inhalation-	Rat	LC50 > 5.05  mg/l
	Dust/Mist		
	(4 hours)		
Cobalt chromite blue green spinel	Ingestion	Rat	LD50 > 10,000 mg/kg
Cobalt chromite blue green spinel	Dermal	similar	LD50 estimated to be > 5,000 mg/kg
		health	
		hazards	

ATE = acute toxicity estimate

# **Skin Corrosion/Irritation**

Name	Species	Value
VINYL POLYDIMETHYSILOXANE	Rabbit	No significant irritation
Cristobalite	Professio nal judgemen t	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Cobalt chromite blue green spinel	In vitro data	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
VINYL POLYDIMETHYSILOXANE	Rabbit	Mild irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Cobalt chromite blue green spinel	Rabbit	No significant irritation

# **Sensitization:**

# Skin Sensitisation

Skiii Sciisitisatioii						
Name	Species	Value				
SILANE TREATED SILICA	Human	Not classified				
	and					
	animal					
Cobalt chromite blue green spinel	Mouse	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

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Cristobalite	In Vitro	Some positive data exist, but the data are not sufficient for classification
Cristobalite	In vivo	Some positive data exist, but the data are not sufficient for classification
SILANE TREATED SILICA	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Cristobalite	Inhalation	Human	Carcinogenic.
		and	
		animal	
SILANE TREATED SILICA	Not	Mouse	Some positive data exist, but the data are not
	specified.		sufficient for classification

## Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

## 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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Cristobalite	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
SILANE TREATED SILICA	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

### **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
VINYL POLYDIMETHYS ILOXANE	68083-19-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cristobalite	14464-46-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Poly(dimethylsilox ane)	63148-62-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cobalt chromite blue green spinel	68187-11-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

# 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
VINYL POLYDIMETHYS ILOXANE	68083-19-2	Data not available- insufficient	N/A	N/A	N/A	N/A
Cristobalite	14464-46-1	Data not available-insufficient	N/A	N/A	N/A	N/A
Poly(dimethylsilox ane)	63148-62-9	Data not available-insufficient	N/A	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	Data not available-insufficient	N/A	N/A	N/A	N/A
Cobalt chromite blue green spinel	68187-11-1	Data not available-insufficient	N/A	N/A	N/A	N/A

# 12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
VINYL POLYDIMETHYS ILOXANE	68083-19-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cristobalite	14464-46-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly(dimethylsilox ane)	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SILANE TREATED SILICA	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cobalt chromite blue green spinel	68187-11-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

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#### 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. 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.

# **SECTION 14: Transport Information**

## **International Regulations**

UN No.: None assigned

UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned

Packing Group: None assigned Marine pollutant: None assigned

# **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.

## This product may contain component(s) that are regulated by the following:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

Fire Safety (Petroleum and Flammable Materials) Regulations: This product is subject to the requirements in the Regulations

# **SECTION 16: Other information**

DISCLAIMER: The information on this Safety Data Sheet 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 Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

# 3M Singapore SDSs are available at www.3m.com.sg

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