

## **Safety Data Sheet**

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

# **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### 1.1. Product identifier

3M ESPE™ EXPRESS™ 2 ULTRA-LIGHT BODY QUICK BASE

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

## **Identified uses**

**Dental Product** 

#### 1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com Website: www.3M.com/uk

## 1.4. Emergency telephone number

+44 (0)1344 858 000

## **SECTION 2: Hazard identification**

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

CLP REGULATION (EC) No 1272/2008

## **CLASSIFICATION:**

This material is exempt from hazard classification according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

## Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

## 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)

None.

#### **Contains:**

No ingredients are assigned to the label.

Risk phrases None.

Safety phrases None.

## Special provisions concerning the labelling of certain substances

This product contains a substance classified as R48/20. Based on the physical form, exposure by inhalation is not expected.

## Notes on labelling

This product is exempt from labelling per Directive 1999/45/EC as it is defined as a medical device according to Directive 93/42/EEC and is invasive or comes into contact with the human body.

## 2.3. Other hazards

None known.

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

Ingredient	CAS Nbr	<b>EU Inventory</b>	% by Wt	Classification
Siloxanes and silicones, Di-Me, vinyl	68083-19-2		40 - 50	
group-terminated				
Cristobalite	14464-46-1	EINECS 238- 455-4	25 - 35	Xn:R48/20 (Vendor)
				STOT RE 2, H373 (Vendor)
Dimethyl methyl hydrogen silicone fluid	68037-59-2		10 - 15	Xn:R20 (Self Classified)
				Acute Tox. 4, H332 (Self
				Classified)
Siloxanes and silicones, di-Me	63148-62-9		1 - 10	
Dimethyl siloxane, reaction product with	67762-90-7		1 - 10	
silica				
Glycols, polyethylene, methyl 3-[1,3,3,3-	27306-78-1		< 2	Xn:R20; Xi:R36 (Self
tetramethyl-1-				Classified)
(trimethylsiloxy)disiloxanyl]propyl ether				
				Acute Tox. 4, H332; Eye Irrit. 2, H319 (Self Classified)

Please see section 16 for the full text of any R phrases and H statements referred to in this section Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### Inhalation

No need for first aid is anticipated.

#### 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

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. 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**

## **Substance**

Carbon monoxide. Carbon dioxide.

Irritant vapours or gases.

## **Condition**

During combustion.
During combustion.
During combustion.

#### 5.3. Advice for fire-fighters

No unusual fire or explosion hazards are anticipated.

# **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area with fresh air. 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 with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

## 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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## 7.2. Conditions for safe storage including any incompatibilities

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

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

#### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

## 8.2. Exposure controls

## 8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

## 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

Skin protection is not required.

## Respiratory protection

None required.

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

## 9.1. Information on basic physical and chemical properties

Physical stateSolid.Specific Physical Form:Paste

Appearance/Odour Odourless, white **Odour threshold** No data available. Not applicable. Boiling point/boiling range Not applicable. **Melting point** No data available. Flammability (solid, gas) Not classified **Explosive properties** Not classified **Oxidising properties** Not classified Not applicable. Flash point No data available. **Autoignition temperature** Not applicable. Flammable Limits(LEL) Not applicable. Flammable Limits(UEL) Vapour pressure Not applicable.

**Relative density** >=1.2 [*Ref Std*:WATER=1]

Water solubility Nil

**Solubility- non-water** *No data available.* 

Partition coefficient: n-octanol/waterNot applicable.Evaporation rateNot applicable.Vapour densityNot applicable.

**Decomposition temperature**No data available. **Viscosity**No data available.

**Density** 1.2 g/ml

9.2. Other information

Volatile organic compounds (VOC)Not applicable.Percent volatileNot applicable.VOC less H2O & exempt solventsNot applicable.

# **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

Heat.

## 10.5 Incompatible materials

Alcohols.

Alkali and alkaline earth metals.

Amines.

Finely divided active metals

Strong bases.

Strong oxidising agents.

## 10.6 Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

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

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

## Ingestion

No health effects are expected.

## **Toxicological Data**

**Acute Toxicity** 

Name	Route	Species	Value
Overall product	Ingestion		Data not available or insufficient for classification;
			calculated ATE >5,000 mg/kg
Siloxanes and silicones, Di-Me, vinyl group-terminated	Dermal	Rabbit	LD50 > 15,440 mg/kg
Siloxanes and silicones, Di-Me, vinyl group-terminated	Ingestion	Rat	LD50 > 15,440 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	Inhalation-	Rat	LC50 4.2 mg/l
	Dust/Mist		
	(4 hours)		
Dimethyl methyl hydrogen silicone fluid	Ingestion	Rat	LD50 > 2,000 mg/kg
Siloxanes and silicones, di-Me	Dermal	Rabbit	LD50 > 19,400 mg/kg
Siloxanes and silicones, di-Me	Ingestion	Rat	LD50 > 17,000 mg/kg
Dimethyl siloxane, reaction product with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Dimethyl siloxane, reaction product with silica	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
Dimethyl siloxane, reaction product with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Dermal	Rabbit	LD50 > 2,000 mg/kg
(trimethylsiloxy)disiloxanyl]propyl ether			
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Inhalation-	Rat	LC50 2 mg/l
(trimethylsiloxy)disiloxanyl]propyl ether	Dust/Mist		
	(4 hours)		
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Ingestion	Rat	LD50 > 2,000 mg/kg
(trimethylsiloxy)disiloxanyl]propyl ether			

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification
Cristobalite		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Siloxanes and silicones, di-Me	Rabbit	No significant irritation
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Rabbit	No significant irritation
(trimethylsiloxy)disiloxanyl]propyl ether		

## Serious Eye Damage/Irritation

Name	Species	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification
Cristobalite		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Siloxanes and silicones, di-Me	Rabbit	No significant irritation
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Rabbit	Severe irritant
(trimethylsiloxy)disiloxanyl]propyl ether		

## **Skin Sensitisation**

Name	Species	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification
Cristobalite		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Siloxanes and silicones, di-Me		Data not available or insufficient for classification
Dimethyl siloxane, reaction product with silica	Human	Not sensitizing
	and	
	animal	
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Guinea	Not sensitizing
(trimethylsiloxy)disiloxanyl]propyl ether	pig	

**Respiratory Sensitisation** 

Name	Species	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification
Cristobalite		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Siloxanes and silicones, di-Me		Data not available or insufficient for classification
Dimethyl siloxane, reaction product with silica		Data not available or insufficient for classification
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-		Data not available or insufficient for classification
(trimethylsiloxy)disiloxanyl]propyl ether		

**Germ Cell Mutagenicity** 

Name	Route	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification
Cristobalite		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Siloxanes and silicones, di-Me		Data not available or insufficient for classification
Dimethyl siloxane, reaction product with silica	In Vitro	Not mutagenic
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	In Vitro	Not mutagenic
(trimethylsiloxy)disiloxanyl]propyl ether		
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	In vivo	Not mutagenic
(trimethylsiloxy)disiloxanyl]propyl ether		

Carcinogenicity

Caremogenicity			
Name	Route	Species	Value
Siloxanes and silicones, Di-Me, vinyl group-terminated			Data not available or insufficient for classification
Cristobalite			Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification
Siloxanes and silicones, di-Me			Data not available or insufficient for classification
Dimethyl siloxane, reaction product with silica	Not	Mouse	Some positive data exist, but the data are not
	specified.		sufficient for classification
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-			Data not available or insufficient for classification
(trimethylsiloxy)disiloxanyl propyl ether			

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Siloxanes and silicones, Di-Me, vinyl group-terminated		Data not available or insufficient for classification			
Cristobalite		Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for			

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		classification			
Siloxanes and silicones, di-Me		Data not available or insufficient for classification			
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to 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	Some positive reproductive/developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 450 mg/kg/day	premating & during gestation

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Siloxanes and silicones, Di-Me, vinyl group- terminated			Data not available or insufficient for classification			
Cristobalite			Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification			
Siloxanes and silicones, di- Me			Data not available or insufficient for classification			
Dimethyl siloxane, reaction product with silica			Data not available or insufficient for classification			
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl-1- (trimethylsiloxy)disiloxany l]propyl ether			Data not available or insufficient for classification			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Siloxanes and silicones, Di-Me, vinyl group- terminated			Data not available or insufficient for classification			
Cristobalite			Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification			
Dimethyl siloxane, reaction product with silica	Inhalation	respiratory system   silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Glycols,polyethylene,meth yl 3-[1,3,3,3-tetramethyl- 1- (trimethylsileny)disilenan			Data not available or insufficient for classification			
(trimethylsiloxy)disiloxan yl]propyl ether						

**Aspiration Hazard** 

Aspiration mazaru		
Name	Value	
Siloxanes and silicones, Di-Me, vinyl group-terminated	Not an aspiration hazard	
Cristobalite	Not an aspiration hazard	
Dimethyl methyl hydrogen silicone fluid	Not an aspiration hazard	
Siloxanes and silicones, di-Me	Not an aspiration hazard	
Dimethyl siloxane, reaction product with silica	Not an aspiration hazard	
Glycols,polyethylene,methyl 3-[1,3,3,3-tetramethyl-1-	Not an aspiration hazard	
(trimethylsiloxy)disiloxanyl]propyl ether		

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

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Cristobalite	14464-46-1		Data not			
			available or			
			insufficient for			
			classification			
Dimethyl	68037-59-2		Data not			
methyl			available or			
hydrogen			insufficient for			
silicone fluid			classification			
,	67762-90-7		Data not			
siloxane,			available or			
reaction			insufficient for			
product with			classification			
silica						
	27306-78-1		Data not			
hylene,methyl			available or			
3-[1,3,3,3-			insufficient for			
tetramethyl-1-			classification			
(trimethylsilox						
y)disiloxanyl]p						
ropyl ether	63148-62-9		Data and			
Siloxanes and	63148-62-9		Data not available or			
silicones, di- Me			insufficient for			
Me			classification			
Siloxanes and	68083-19-2		Data not		+	
silicones, Di-	00003-19-2		available or			
Me, vinyl			insufficient for			
group-			classification			
terminated			Classification			

## 12.2. Persistence and degradability

No test data available.

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Siloxanes and silicones, di- Me	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl methyl	68037-59-2	Data not available or	N/A	N/A	N/A	N/A

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hydrogen		insufficient for				
silicone fluid		classification				
Siloxanes and	68083-19-2	Data not	N/A	N/A	N/A	N/A
silicones, Di-		available or				
Me, vinyl		insufficient for				
group-		classification				
terminated						
Dimethyl	67762-90-7	Data not	N/A	N/A	N/A	N/A
siloxane,		available or				
reaction		insufficient for				
product with		classification				
silica						
Glycols,polyet	27306-78-1	Data not	N/A	N/A	N/A	N/A
hylene,methyl		available or				
3-[1,3,3,3-		insufficient for				
tetramethyl-1-		classification				
(trimethylsilox						
y)disiloxanyl]p						
ropyl ether						
Cristobalite	14464-46-1	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				

# **12.3 : Bioaccumulative potential** No test data available.

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Siloxanes and silicones, di- Me	63148-62-9	Data not available or insufficient for	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
Siloxanes and silicones, Di- Me, vinyl group- terminated	68083-19-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl siloxane, reaction product with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycols,polyet hylene,methyl 3-[1,3,3,3- tetramethyl-1- (trimethylsilox y)disiloxanyl]p ropyl ether	27306-78-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cristobalite	14464-46-1	Data not available or	N/A	N/A	N/A	N/A

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	insufficient for		
	classification		

## 12.4. Mobility in soil

Please contact manufacturer for more details

#### 12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

#### 12.6. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

This product has been classified as a non-hazardous waste. 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. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

#### EU waste code (product as sold)

180107 Chemicals other than those mentioned in 18 01 06

# **SECTION 14: Transportation information**

ADR/IMDG/IATA: Not Restricted For Transport

# **SECTION 15: Regulatory information**

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

#### Carcinogenicity

IngredientCAS NbrClassificationRegulationCristobalite14464-46-1Grp. 1: Carcinogenic to humansInternational Agency for Research on Cancer

#### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA.

## 15.2. Chemical Safety Assessment

Not applicable

# **SECTION 16: Other information**

#### List of relevant H statements

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

## List of relevant R-phrases

R20 Harmful by inhalation. R36 Irritating to eyes.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

#### **Revision information:**

**Revision Changes:** 

Section 1: Initial issue message information was modified.

Section 14: Transportation classification information was added.

Section 8: Occupational exposure limit table information was added.

Section 8: OEL table agency column heading information was deleted.

Section 8: OEL table limit type column heading information was deleted.

OEL Ceiling Heading information was deleted.

Section 8: Occupational exposure limit table information was deleted.

Section 8: OEL table Ingredient column heading information was deleted.

Section 8: OEL table Additional Comments column heading information was deleted.

OEL Reg Agency Desc information was deleted.

Section 8: TWA key information was deleted.

Section 8: STEL key information was deleted.

Section 8: OEL table CAS No Column heading information was deleted.

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 United Kingdom MSDSs are available at www.3M.com/uk



## **Safety Data Sheet**

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**Transportation version number:** 1.00 (28/11/2013)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

# **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### 1.1. Product identifier

3M ESPE™ EXPRESS™ 2 ULTRA-LIGHT BODY QUICK CATALYST

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

## **Identified uses**

**Dental Product** 

#### 1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com Website: www.3M.com/uk

## 1.4. Emergency telephone number

+44 (0)1344 858 000

## **SECTION 2: Hazard identification**

## 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

## **CLASSIFICATION:**

This material is exempt from hazard classification according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

## Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

## 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)

None.

#### **Contains:**

No ingredients are assigned to the label.

Risk phrases None.

Safety phrases None.

## Special provisions concerning the labelling of certain substances

This product contains a substance classified as R48/20. Based on the physical form, exposure by inhalation is not expected.

## Notes on labelling

This product is exempt from labelling per Directive 1999/45/EC as it is defined as a medical device according to Directive 93/42/EEC and is invasive or comes into contact with the human body.

## 2.3. Other hazards

None known.

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

Ingredient	CAS Nbr	<b>EU Inventory</b>	% by Wt	Classification
Silane treated quartz	None		65 - 75	
Quartz	14464-46-1	EINECS 238- 455-4	45 - 55	Xn:R48/20 (Vendor)
				STOT RE 2, H373 (Vendor)
Vinyl Polydimethysiloxane	68083-19-2		15 - 30	
Paraffin oils	8012-95-1	EINECS 232- 384-2	5 - 10	R53 (Self Classified)
				Aquatic Chronic 4, H413 (Self Classified)
Dimethyl methyl hydrogen silicone fluid	68037-59-2		< 5	Xn:R20 (Self Classified)
				Acute Tox. 4, H332 (Self Classified)
Aluminium oxide	1344-28-1	EINECS 215- 691-6	< 5	
Platinum catalyst	Trade Secret		< 2	
Chromium (III) oxide	1308-38-9	EINECS 215- 160-9	< 1	

Please see section 16 for the full text of any R phrases and H statements referred to in this section

Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

## Inhalation

No need for first aid is anticipated.

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

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. 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**

## Substance

Carbon monoxide.
Carbon dioxide.

Irritant vapours or gases.

## Condition

During combustion.
During combustion.
During combustion.

## 5.3. Advice for fire-fighters

No unusual fire or explosion hazards are anticipated.

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

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. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

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

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## 7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

## 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

# **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

## Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Chromium (III) oxide	1308-38-9	Health and	TWA(as Cr):0.5 mg/m3	
		Safety Comm.		
		(UK)		
Aluminium oxide	1344-28-1	Health and	TWA(as inhalable dust):10	
		Safety Comm.	mg/m³;TWA(as respirable	
		(UK)	dust):4 mg/m <sup>3</sup>	
Quartz	14464-46-1	Health and	TWA(respirable):0.1 mg/m3	
		Safety Comm.		
		(UK)		

Health and Safety Comm. (UK): UK Health and Safety Commission

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:

As a good industrial hygiene practice:

Wear eye/face protection.

Safety glasses with side shields.

## Skin/hand protection

No chemical protective gloves are required.

## **Respiratory protection**

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

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

## 9.1. Information on basic physical and chemical properties

Physical state Solid.
Specific Physical Form: Paste

Appearance/Odour Odorless, orange **Odour threshold** No data available. Not applicable. pН Boiling point/boiling range Not applicable. No data available. **Melting point** Not classified Flammability (solid, gas) **Explosive properties** Not classified **Oxidising properties** Not classified Flash point Not applicable. **Autoignition temperature** No data available.

Autoignition temperatureNo data availabFlammable Limits(LEL)Not applicable.Flammable Limits(UEL)Not applicable.Vapour pressureNot applicable.

Relative density >=1.4 [Ref Std:WATER=1]

Water solubility Nil

**Solubility- non-water** *No data available.* 

Partition coefficient: n-octanol/waterNot applicable.Evaporation rateNot applicable.Vapour densityNot applicable.

Decomposition temperatureNo data available.ViscosityNo data available.Density>=1.4 g/cm3

9.2. Other information

Volatile organic compounds (VOC)Not applicable.Percent volatileNot applicable.VOC less H2O & exempt solventsNot 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

## 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

Alkali and alkaline earth metals.

Amines.

Strong acids.

Strong bases.

Strong oxidising agents.

## 10.6 Hazardous decomposition products

**Substance** 

None known.

Condition

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.

#### Eye contact

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

## Ingestion

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

## **Toxicological Data**

## **Acute Toxicity**

Name	Route	Species	Value
		Species	
Overall product	Ingestion		Data not available or insufficient for classification;
			calculated ATE >5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg
Vinyl Polydimethysiloxane	Dermal	Rabbit	LD50 > 15,440 mg/kg
Vinyl Polydimethysiloxane	Ingestion	Rat	LD50 > 15,440 mg/kg
Paraffin oils	Dermal		LD50 estimated to be > 5,000 mg/kg
Paraffin oils	Ingestion	Rat	LD50 > 24,000 mg/kg
Dimethyl methyl hydrogen silicone fluid	Dermal	Rabbit	LD50 > 2,000 mg/kg
Dimethyl methyl hydrogen silicone fluid	Inhalation-	Rat	LC50 4.2 mg/l
	Dust/Mist		
	(4 hours)		
Dimethyl methyl hydrogen silicone fluid	Ingestion	Rat	LD50 > 2,000 mg/kg
Aluminium oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium oxide	Inhalation-	Rat	LC50 > 2.3 mg/l
	Dust/Mist		
	(4 hours)		
Aluminium oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Chromium (III) oxide	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

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## Skin Corrosion/Irritation

Name	Species	Value
Quartz		Data not available or insufficient for classification
Vinyl Polydimethysiloxane		Data not available or insufficient for classification
Paraffin oils		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Aluminium oxide	Rabbit	No significant irritation
Chromium (III) oxide		Data not available or insufficient for classification

**Serious Eye Damage/Irritation** 

Name	Species	Value
Quartz		Data not available or insufficient for classification
Vinyl Polydimethysiloxane		Data not available or insufficient for classification
Paraffin oils		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Aluminium oxide	Rabbit	No significant irritation
Chromium (III) oxide		Data not available or insufficient for classification

## **Skin Sensitisation**

Name	Species Value
Quartz	Data not available or insufficient for classification
Vinyl Polydimethysiloxane	Data not available or insufficient for classification
Paraffin oils	Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid	Data not available or insufficient for classification
Aluminium oxide	Data not available or insufficient for classification
Chromium (III) oxide	Data not available or insufficient for classification

**Respiratory Sensitisation** 

Name	Species	Value
Quartz		Data not available or insufficient for classification
Vinyl Polydimethysiloxane		Data not available or insufficient for classification
Paraffin oils		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Aluminium oxide		Data not available or insufficient for classification
Chromium (III) oxide		Data not available or insufficient for classification

Germ Cell Mutagenicity

Germ Cen Mutagementy		
Name	Route	Value
Quartz		Data not available or insufficient for classification
Vinyl Polydimethysiloxane		Data not available or insufficient for classification
Paraffin oils		Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid		Data not available or insufficient for classification
Aluminium oxide	In Vitro	Not mutagenic
Chromium (III) oxide		Data not available or insufficient for classification

Carcinogenicity

Caremogenicity			
Name	Route	Species	Value
Quartz			Data not available or insufficient for classification
Vinyl Polydimethysiloxane			Data not available or insufficient for classification
Paraffin oils			Data not available or insufficient for classification
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification
Aluminium oxide	Inhalation	Rat	Not carcinogenic
Chromium (III) oxide			Data not available or insufficient for classification

# **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Reproductive and/or Developmental Effects								
Name	Route	Value	Species	Test result	Exposure Duration			
Quartz		Data not available or insufficient for classification						
Vinyl Polydimethysiloxane		Data not available or insufficient for classification						

Paraffin oils	Data not available or insufficient for
	classification
Dimethyl methyl hydrogen silicone fluid	Data not available or insufficient for
	classification
Aluminium oxide	Data not available or insufficient for
	classification
Chromium (III) oxide	Data not available or insufficient for
	classification

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Quartz			Data not available or insufficient for classification			
Vinyl Polydimethysiloxane			Data not available or insufficient for classification			
Paraffin oils			Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification			
Chromium (III) oxide			Data not available or insufficient for classification			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Quartz			Data not available or insufficient for classification			
Vinyl Polydimethysiloxane			Data not available or insufficient for classification			
Paraffin oils			Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid			Data not available or insufficient for classification			
Aluminium oxide	Inhalation	pneumoconiosis   pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Chromium (III) oxide			Data not available or insufficient for classification			

**Aspiration Hazard** 

- Ispirusion IIIII u	
Name	Value
Quartz	Not an aspiration hazard
Vinyl Polydimethysiloxane	Not an aspiration hazard
Paraffin oils	Not an aspiration hazard
Dimethyl methyl hydrogen silicone fluid	Not an aspiration hazard
Aluminium oxide	Not an aspiration hazard
Chromium (III) oxide	Not an aspiration hazard

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

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminium oxide	1344-28-1	Fish	Experimental	96 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Paraffin oils	8012-95-1	Bluegill	Estimated	96 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Chromium (III) oxide	1308-38-9		Data not available or insufficient for classification			
Quartz	14464-46-1		Data not available or insufficient for classification			
Dimethyl methyl hydrogen silicone fluid	68037-59-2		Data not available or insufficient for classification			
Vinyl Polydimethysil oxane	68083-19-2		Data not available or insufficient for classification			

# 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminium	1344-28-1	Data not	N/A	N/A	N/A	N/A
oxide		available or				
		insufficient for				
		classification				
Chromium (III)	1308-38-9	Data not	N/A	N/A	N/A	N/A
oxide		available or				
		insufficient for				
		classification				
Dimethyl	68037-59-2	Data not	N/A	N/A	N/A	N/A
methyl		available or				
hydrogen		insufficient for				
silicone fluid		classification				
Vinyl	68083-19-2	Data not	N/A	N/A	N/A	N/A
Polydimethysil		available or				
oxane		insufficient for				
		classification				
Paraffin oils	8012-95-1	Estimated	28 days	CO2 evolution	10 % weight	OECD 301B -
		Biodegradation				Modified sturm or CO2
Quartz	14464-46-1	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				

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classification			
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## 12.3: Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Quartz	14464-46-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Paraffin oils	8012-95-1	Estimated Bioconcentrati on		Bioaccumulati on factor	2000	Estimated: Bioconcentration factor
Chromium (III) oxide	1308-38-9	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
Vinyl Polydimethysil oxane	68083-19-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

## 12.4. Mobility in soil

Please contact manufacturer for more details

## 12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

#### 12.6. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

This product has been classified as a non-hazardous waste. 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. Proper destruction may require the use of additional fuel during incineration processes.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

## EU waste code (product as sold)

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180106\* Chemicals consisting of or containing dangerous substances.

180107 Chemicals other than those mentioned in 18 01 06

# **SECTION 14: Transportation information**

ADR/IMDG/IATA: Not Restricted For Transport

## **SECTION 15: Regulatory information**

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

## Carcinogenicity

IngredientCAS NbrClassificationRegulationQuartz14464-46-1Grp. 1: Carcinogenic to humansInternational Agency for Research on Cancer

## Global inventory status

Contact 3M for more information.

## 15.2. Chemical Safety Assessment

Not applicable

## **SECTION 16: Other information**

## List of relevant H statements

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H413 May cause long lasting harmful effects to aquatic life.

## List of relevant R-phrases

R20 Harmful by inhalation.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R53 May cause long-term adverse effects in the aquatic environment.

#### **Revision information:**

No revision information is available.

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