Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

1.1. Product identifier
3M™ Fire Barrier Water Tight Sealant 1000 NS

Product Identification Numbers
LA-D100-3568-3 LA-D100-3568-4 98-0400-5276-7

7000006377

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

Identified uses
Fire Protection

1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
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
The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Carcinogenicity, Category 1B - Carc. 1B; H350
Specific Target Organ Toxicity-Single Exposure, Category 2 - STOT SE 2; H371
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements
The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

SIGNAL WORD
DANGER.

Symbols
GHS07 (Exclamation mark) |GHS08 (Health Hazard) |

Pictograms

Ingredient	CAS Nbr	EC No.	% by Wt
2-butanone oxime	96-29-7	202-496-6	0.01 - 1.2
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	217-164-6	0.5 - 1

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H371	May cause damage to organs: respiratory system.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P260A	Do not breathe vapours.
P280K	Wear protective gloves and respiratory protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

SUPPLEMENTAL INFORMATION:

Supplemental Precautionary Statements:
Restricted to professional users.

2% of the mixture consists of components of unknown acute oral toxicity.
2% of the mixture consists of components of unknown acute dermal toxicity.

Contains 2% of components with unknown hazards to the aquatic environment.

This product may release methyl ethyl ketoxime (CAS 96-29-7) during curing and/or when exposed to water or humid air.

2.3. Other hazards

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines. Contains a substance that meets the criteria for PBT according to Regulation (EC) No 1907/2006, Annex XIII, as amended by UK REACH Regulations SI 2019/758 Contains a substance that meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII, as amended by UK REACH Regulations SI 2019/758

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB
Limestone	(CAS-No.) 1317-65-3 (EC-No.) 215-279-6	15 - 40	Substance with a national occupational exposure limit
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	(CAS-No.) 70131-67-8	15 - 40	Substance not classified as hazardous
Poly(Dimethylsiloxane)	(CAS-No.) 63148-62-9	15 - 40	Substance not classified as hazardous
2-butanone oxime	(CAS-No.) 96-29-7 (EC-No.) 202-496-6	0.01 - 1.2	Acute Tox. 3, H301(LD50 = 100 mg/kg **ATE values per GB MCL**) Acute Tox. 4, H312(LD50 = 1100 mg/kg **ATE values per GB MCL**) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 STOT SE 1, H370 STOT SE 3, H336 STOT RE 2, H373
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	(CAS-No.) 22984-54-9 (EC-No.) 245-366-4	3 - 7	Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT RE 2, H373
Pigments	Mixture	1 - 5	Substance not classified as hazardous
Silicon dioxide	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4	0.5 - 5	Substance with a national occupational exposure limit
Tris(Ethylmethylketoximato)Vinylsilane	(CAS-No.) 2224-33-1 (EC-No.) 218-747-8	< 1	Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT RE 2, H373

octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2 (EC-No.) 209-136-7	<= 0.1	Repr. 2, H361f Aquatic Chronic 1, H410,M=10 Flam. Liq. 3, H226
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6	0.5 - 1	Acute Tox. 4, H332 Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373

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

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

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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
The most important symptoms and effects based on the GB CLP classification include:
Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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	Condition
formaldehyde	During combustion.
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.

5.3. Advice 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
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. 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.

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
Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
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
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
Limestone	1317-65-3	UK HSC	TWA(respirable):4 mg/m3;TWA(as respirable dust):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(as inhalable dust):10 mg/m3	
DUST, INERT OR NUISANCE	7631-86-9	UK HSC	TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3	

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values
No biological 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.
Indirect vented goggles.

Applicable Norms/Standards
Use eye protection conforming to EN 166

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Paste
Colour	Grey
Odor	Low Odor
Odour threshold	*No data available.*
Melting point/freezing point	*No data available.*
Boiling point/boiling range	*Not applicable.*
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Flash point	> 100 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	*No data available.*
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	< 666.6 Pa [@ 25 ºC]
Density	1.32 g/cm3
Relative density	1.31 - 1.33 [*Ref Std:*WATER=1]
Relative Vapour Density	>=1 [*Ref Std:*AIR=1]

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*Not applicable.*
Molecular weight	*No data available.*

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
Not determined

10.5 Incompatible materials
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 agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

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

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact
Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Hematopoietic effects: Signs/symptoms may include generalised weakness, fatigue and alterations in numbers of circulating blood cells. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Additional information:
Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

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	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	Dermal	Rabbit	LD50 > 16,000 mg/kg
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	Ingestion	Rat	LD50 > 64,000 mg/kg
Poly(Dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Poly(Dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Dermal	Rat	LD50 > 2,000 mg/kg
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	Rat	LD50 2,260 mg/kg
2-butanone oxime	Dermal	official classification	LD50 1,100 mg/kg
2-butanone oxime	Ingestion	official classification	LD50 100 mg/kg
2-butanone oxime	Inhalation-Vapour	Rat	LC50 estimated to be 20 - 50 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 >1.49, <2.44 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Rat	LD50 1,897 mg/kg
Tris(Ethylmethylketoximato)Vinylsilane	Dermal	Rat	LD50 > 2,009 mg/kg
Tris(Ethylmethylketoximato)Vinylsilane	Ingestion	Rat	LD50 > 2,000 mg/kg
octamethylcyclotetrasiloxane	Dermal	Rat	LD50 > 2,400 mg/kg
octamethylcyclotetrasiloxane	Inhalation-Dust/Mist (4 hours)	Rat	LC50 36 mg/l
octamethylcyclotetrasiloxane	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Limestone	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Rabbit	No significant irritation
2-butanone oxime	Rabbit	Irritant
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Mild irritant
Tris(Ethylmethylketoximato)Vinylsilane	Rabbit	Minimal irritation
octamethylcyclotetrasiloxane	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Limestone	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Rabbit	Moderate irritant
2-butanone oxime	Rabbit	Corrosive
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Rabbit	Corrosive

Tris(Ethylmethylketoximato)Vinylsilane	Rabbit	Corrosive
octamethylcyclotetrasiloxane	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Silicon dioxide	Human and animal	Not classified
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Guinea pig	Sensitising
2-butanone oxime	Guinea pig	Sensitising
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Multiple animal species	Sensitising
Tris(Ethylmethylketoximato)Vinylsilane	Guinea pig	Sensitising
octamethylcyclotetrasiloxane	Human and animal	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	In Vitro	Not mutagenic
Silicon dioxide	In Vitro	Not mutagenic
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	In Vitro	Not mutagenic
2-butanone oxime	In Vitro	Not mutagenic
2-butanone oxime	In vivo	Not mutagenic
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In Vitro	Not mutagenic
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	In vivo	Not mutagenic
Tris(Ethylmethylketoximato)Vinylsilane	In vivo	Not mutagenic
Tris(Ethylmethylketoximato)Vinylsilane	In Vitro	Some positive data exist, but the data are not sufficient for classification
octamethylcyclotetrasiloxane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Silicon dioxide	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
2-butanone oxime	Inhalation	Multiple animal species	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Silicon dioxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for development	Rat	NOAEL 1,350	during organogenesis

				mg/kg/day	
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	premating into lactation
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	Not classified for male reproduction	Rat	NOAEL 250 mg/kg/day	28 days
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	Not classified for development	Rat	NOAEL 250 mg/kg/day	premating into lactation
2-butanone oxime	Ingestion	Not classified for female reproduction	Rat	NOAEL 200 mg/kg/day	2 generation
2-butanone oxime	Ingestion	Not classified for male reproduction	Rat	NOAEL 200 mg/kg/day	2 generation
2-butanone oxime	Ingestion	Not classified for development	Rat	NOAEL 600 mg/kg/day	during organogenesis
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	premating into lactation
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	28 days
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	during gestation
octamethylcyclotetrasiloxane	Inhalation	Not classified for male reproduction	Rat	NOAEL 8.5 mg/l	2 generation
octamethylcyclotetrasiloxane	Ingestion	Toxic to female reproduction	Rabbit	NOAEL 50 mg/kg/day	during organogenesis
octamethylcyclotetrasiloxane	Inhalation	Toxic to female reproduction	Rat	NOAEL 3.6 mg/l	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-butanone oxime	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-butanone oxime	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL 100 mg/kg	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Tris(Ethylmethylketoximato)Vinylsilane	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
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Silicon dioxide	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 10 mg/kg/day	28 days
Butan-2-one O,O',O''-(methylsilylidyne)trioxime	Ingestion	endocrine system | liver | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 250 mg/kg/day	28 days
2-butanone oxime	Inhalation	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.36 mg/l	28 days
2-butanone oxime	Inhalation	respiratory system	May cause damage to organs	Mouse	NOAEL 0.01	90 days

			though prolonged or repeated exposure		mg/l	
2-butanone oxime	Inhalation	liver	Not classified	Rat	NOAEL 1.44 mg/l	28 days
2-butanone oxime	Ingestion	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 25 mg/kg/day	90 days
2-butanone oxime	Ingestion	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	90 days
2-butanone oxime	Ingestion	nervous system	Not classified	Rat	NOAEL 400 mg/kg/day	90 days
2-butanone oxime	Ingestion	liver | kidney and/or bladder | heart | endocrine system | bone, teeth, nails, and/or hair | immune system	Not classified	Rat	NOAEL 335 mg/kg/day	90 days
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Dermal	skin | endocrine system | hematopoietic system | kidney and/or bladder	Not classified	Rat	NOAEL 1,545 mg/kg/day	11 days
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.015 mg/l	90 days
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Inhalation	hematopoietic system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 0.044 mg/l	90 days
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Ingestion	hematopoietic system | nervous system	Not classified	Rat	NOAEL 500 mg/kg/day	28 days
Tris(Ethylmethylketoximato)Vinylsilane	Inhalation	hematopoietic system | respiratory system	May cause damage to organs though prolonged or repeated exposure	similar compounds	NOAEL not available	
Tris(Ethylmethylketoximato)Vinylsilane	Ingestion	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	similar compounds	NOAEL not available	
octamethylcyclotetrasiloxane	Dermal	hematopoietic system	Not classified	Rabbit	NOAEL 960 mg/kg/day	3 weeks
octamethylcyclotetrasiloxane	Inhalation	liver	Not classified	Rat	NOAEL 8.5 mg/l	13 weeks
octamethylcyclotetrasiloxane	Inhalation	endocrine system | immune system | kidney and/or bladder	Not classified	Rat	NOAEL 8.5 mg/l	2 generation
octamethylcyclotetrasiloxane	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 8.5 mg/l	13 weeks
octamethylcyclotetrasiloxane	Ingestion	liver	Not classified	Rat	NOAEL 1,600 mg/kg/day	2 weeks

Aspiration Hazard
For the component/components, either no data is currently available or the data is 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.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Limestone	1317-65-3	Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Limestone	1317-65-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC10	>100 mg/l
Poly(Dimethylsiloxane)	63148-62-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	70131-67-8	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-butanone oxime	96-29-7	Bacteria	Experimental	17 hours	EC50	281 mg/l
2-butanone oxime	96-29-7	Green algae	Experimental	72 hours	EC50	16 mg/l
2-butanone oxime	96-29-7	Medaka	Experimental	96 hours	LC50	>100 mg/l
2-butanone oxime	96-29-7	Water flea	Experimental	48 hours	EC50	201 mg/l
2-butanone oxime	96-29-7	Green algae	Experimental	72 hours	NOEC	2.6 mg/l
2-butanone oxime	96-29-7	Water flea	Experimental	21 days	NOEC	>=100 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Green algae	Experimental	72 hours	EC50	94 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Rainbow trout	Experimental	96 hours	LC50	>120 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Water flea	Experimental	48 hours	EC50	>120 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Water flea	Analogous Compound	21 days	NOEC	100 mg/l
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Green algae	Experimental	72 hours	NOEC	30 mg/l
Silicon dioxide	7631-86-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
N-(3-(Trimethoxysilyl)propyl)ethylenediami	1760-24-3	Bacteria	Experimental	16 hours	EC50	67 mg/l

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N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Fathead minnow	Experimental	96 hours	LC50	168 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green algae	Experimental	72 hours	ErC50	8.8 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Water flea	Experimental	48 hours	EC50	81 mg/l
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Green algae	Experimental	72 hours	NOEC	3.1 mg/l
octamethylcyclotetrasiloxane	556-67-2	Blackworm	Experimental	28 days	NOEC	0.73 mg/kg (Dry Weight)
octamethylcyclotetrasiloxane	556-67-2	Midge	Experimental	14 days	LC50	>170 mg/kg (Dry Weight)
octamethylcyclotetrasiloxane	556-67-2	Mysid Shrimp	Experimental	96 hours	LC50	>0.0091 mg/l
octamethylcyclotetrasiloxane	556-67-2	Rainbow trout	Experimental	96 hours	LC50	>0.022 mg/l
octamethylcyclotetrasiloxane	556-67-2	Water flea	Experimental	48 hours	EC50	>0.015 mg/l
octamethylcyclotetrasiloxane	556-67-2	Rainbow trout	Experimental	93 days	NOEC	0.0044 mg/l
octamethylcyclotetrasiloxane	556-67-2	Water flea	Experimental	21 days	NOEC	0.015 mg/l
octamethylcyclotetrasiloxane	556-67-2	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Green algae	Experimental	72 hours	EC50	94 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Rainbow trout	Experimental	96 hours	LC50	>120 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Water flea	Experimental	48 hours	EC50	>120 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Green algae	Experimental	72 hours	NOEC	30 mg/l
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Water flea	Experimental	21 days	NOEC	100 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Limestone	1317-65-3	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Poly(Dimethylsiloxane)	63148-62-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	70131-67-8	Data not availbl-insufficient	N/A	N/A	N/A	N/A
2-butanone oxime	96-29-7	Experimental Biodegradation	21 days	BOD	14.5 %BOD/ThOD	

2-butanone oxime	96-29-7	Estimated Photolysis		Photolytic half-life (in air)	21.6 days (t 1/2)	
2-butanone oxime	96-29-7	Experimental Hydrolysis		Hydrolytic half-life	18 days (t 1/2)	
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Analogous Compound Biodegradation	28 days	Dissolv. Organic Carbon Deplet	0 %removal of DOC	OECD 301A - DOC Die Away Test
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1 minutes (t 1/2)	
Silicon dioxide	7631-86-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	39 %removal of DOC	EC C.4.A. DOC Die-Away Test
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1.5 minutes (t 1/2)	
octamethylcyclotetrasiloxane	556-67-2	Experimental Biodegradation	29 days	CO2 evolution	3.7 %CO2 evolution/THCO2 evolution	OECD 310 CO2 Headspace
octamethylcyclotetrasiloxane	556-67-2	Experimental Photolysis		Photolytic half-life (in air)	31 days (t 1/2)	
octamethylcyclotetrasiloxane	556-67-2	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	69.3-144 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	0 %removal of DOC	OECD 301A - DOC Die Away Test
Tris(Ethylmethylketoximato)Vinylsilane	2224-33-1	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1 minutes (t 1/2)	

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly(Dimethylsiloxane)	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Siloxanes and Silcones, Di-Me, Hydroxy-Terminated	70131-67-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-butanone oxime	96-29-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	<5.8	OECD305-Bioconcentration
Butan-2-one O,O',O"-(methylsilylidyne)trioxime	22984-54-9	Analogous Compound Bioconcentration		Log Kow	<0.65	
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
octamethylcyclotetrasiloxane	556-67-2	Experimental BCF - Fish	28 days	Bioaccumulation factor	12400	40CFR 797.1520-Fish Bioaccumm
octamethylcyclotetrasiloxane	556-67-2	Experimental Bioconcentration		Log Kow	6.49	OECD 123 log Kow slow stir
Tris(Ethylmethylke	2224-33-1	Experimental BCF	42 days	Bioaccumulation	2.5	similar to OECD 305

toximato)Vinylsilane		- Fish		factor		

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
octamethylcyclotetrasiloxane	556-67-2	Experimental Mobility in Soil	Koc	16,600 l/kg	OECD 106 Adsp-Desb Batch Equil

12.5. Results of the PBT and vPvB assessment

Ingredient	CAS Nbr	PBT/vPvB status
octamethylcyclotetrasiloxane	556-67-2	Meets UK REACH PBT criteria
octamethylcyclotetrasiloxane	556-67-2	Meets UK REACH vPvB criteria

12.6. Other adverse effects

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

SECTION 13: Disposal considerations

13.1 Waste treatment 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. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.

14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
2-butanone oxime	96-29-7	Carc. 1B	The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain, UK Mandatory Classification and Labelling list
Silicon dioxide	7631-86-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

Restrictions on the manufacture, placing on the market and use:
The following substance(s) contained in this product is/are subject to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

Ingredient	CAS Nbr

octamethylcyclotetrasiloxane	556-67-2

Restriction status: listed in UK REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 as amended for Great Britain for Conditions of Restriction

Authorisation status under UK REACH:
The following substance/s contained in this product might be or is/are subject to authorisation in accordance with UK REACH:

Ingredient	CAS Nbr
octamethylcyclotetrasiloxane	556-67-2

Authorisation status: listed in the UK REACH Candidate List of Substances of Very High Concern for Authorisation

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

COMAH Regulation, SI 2015/483
Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
2-butanone oxime	96-29-7	50	200
octamethylcyclotetrasiloxane	556-67-2	100	200

Regulation (EU) No 649/2012, as amended for GB
No chemicals listed

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

SECTION 16: Other information

List of relevant H statements

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H371	May cause damage to organs: respiratory system.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
GB Section 02: CLP Ingredient table information was modified.
GB Section 15: Carcinogenicity information information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.

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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M SDSs for Great Britain are available at www.3M.com/uk
For Northern Ireland documents, please contact your 3M representative to obtain a copy.