Safety Data Sheet

Document Group:	19-2499-2	**Version Number:**	5.00
Issue Date:	13/05/2021	**Supercedes Date:**	22/05/2016

This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier
3M Fire Barrier Watertight Sealant 3000 WT

Product Identification Numbers
98-0400-5503-4 98-0400-5504-2 98-0400-5553-9

1.2. Recommended use and restrictions on use

Recommended use
Caulk, Fire barrier caulking.

For Industrial or Professional use only

1.3. Supplier's details
ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 2.
Skin Sensitizer: Category 1.
Carcinogenicity: Category 1B.
Specific Target Organ Toxicity (repeated exposure): Category 2.
Chronic Aquatic Toxicity: Category 3.

2.2. Label elements
Signal word
Danger

Symbols
Exclamation mark |Health Hazard |

Pictograms

Hazard Statements:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure: kidney/urinary tract.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements
General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention:

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280E	Wear protective gloves.
P281	Use personal protective equipment as required.

Response:

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards
None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt

Melamine	108-78-1	30 - 60
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	70131-67-8	15 - 40
Graphite	7782-42-5	10 - 30
Poly(Dimethylsiloxane)	63148-62-9	10 - 30
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	3 - 7
Silica	7631-86-9	0 - 5
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	0 - 5
(3-Aminopropyl)Triethoxysilane	919-30-2	0.1 - 1.5
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	< 0.1
Octamethylcyclotetrasiloxane	556-67-2	< 0.1

Any remaining components do not contribute to the hazards of this material.

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
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

SECTION 5: Fire-fighting measures

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

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

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

SECTION 6: Accidental release measures

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

6.2. Environmental precautions

Avoid release to the environment.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of vapors created during cure cycle. 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/vapors/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 oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from oxidizing agents.

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	C.A.S. No.	Agency	Limit type	Additional Comments
DUST, INERT OR NUISANCE	7782-42-5	Malaysia OELs	TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3	
Graphite	7782-42-5	ACGIH	TWA(respirable fraction):2 mg/m3	
Graphite	7782-42-5	Malaysia OELs	TWA(respirable fraction)(8 hours):2 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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/vapors/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:
Indirect Vented Goggles

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: Polymer laminate

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 vapors and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Specific Physical Form:	Paste
Color	Black, Gray
Odor	Silicone
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	*No Data Available*
Flash Point	No flash point
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Density and/or Relative Vapor Density	Nil
Relative Density	1.25 [*Ref Std:*WATER=1]
Water solubility	Nil
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*No Data Available*
Viscosity/Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	<=5.3 % weight [*Test Method:*tested per EPA method 24]
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	<=65 g/l [*Test Method:*tested per EPA method 24]

Molecular weight	*No Data Available*

Nanoparticles
This material contains nanoparticles.

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 polymerization will not occur.

10.4. Conditions to avoid
Not determined

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	Condition
Formaldehyde	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Nitrogen	Not Specified

SECTION 11: Toxicological information

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

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:
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:
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
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 diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Prolonged or repeated exposure may cause target organ effects:
Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Melamine	Dermal	Rabbit	LD50 > 1,000 mg/kg
Melamine	Ingestion	Rat	LD50 3,161 mg/kg
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	Dermal	Rabbit	LD50 > 16,000 mg/kg
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	Ingestion	Rat	LD50 > 64,000 mg/kg
Graphite	Dermal		LD50 estimated to be > 5,000 mg/kg
Poly(Dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Graphite	Ingestion	Rat	LD50 > 2,000 mg/kg
Poly(Dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Methyl Tris(Butylideneaminooxy)Silane	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl Tris(Butylideneaminooxy)Silane	Ingestion	Rat	LD50 2,260 mg/kg
Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Rat	LD50 > 5,110 mg/kg
(3-Aminopropyl)Triethoxysilane	Dermal	Rabbit	LD50 4,290 mg/kg
(3-Aminopropyl)Triethoxysilane	Ingestion	Rat	LD50 1,570 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
3-Iodo-2-Propynyl Butylcarbamate	Dermal	Rabbit	LD50 > 2,000 mg/kg

3-Iodo-2-Propynyl Butylcarbamate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.67 mg/l
3-Iodo-2-Propynyl Butylcarbamate	Ingestion	Rat	LD50 1,056 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Melamine	Guinea pig	No significant irritation
Graphite	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Methyl Tris(Butylideneaminooxy)Silane	Rabbit	No significant irritation
Silica	Rabbit	No significant irritation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
(3-Aminopropyl)Triethoxysilane	Rabbit	Corrosive
Octamethylcyclotetrasiloxane	Rabbit	Minimal irritation
3-Iodo-2-Propynyl Butylcarbamate	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Melamine	Rabbit	No significant irritation
Graphite	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Methyl Tris(Butylideneaminooxy)Silane	Rabbit	Moderate irritant
Silica	Rabbit	No significant irritation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
(3-Aminopropyl)Triethoxysilane	Rabbit	Corrosive
Octamethylcyclotetrasiloxane	Rabbit	No significant irritation
3-Iodo-2-Propynyl Butylcarbamate	Rabbit	Corrosive

Sensitization:

Skin Sensitization

Name	Species	Value
Melamine	Guinea pig	Not classified
Methyl Tris(Butylideneaminooxy)Silane	Guinea pig	Sensitizing
Silica	Human and animal	Not classified
Synthetic Amorphous Silica, Fumed, Crystalline Free	Human and animal	Not classified
(3-Aminopropyl)Triethoxysilane	Guinea pig	Sensitizing
Octamethylcyclotetrasiloxane	Human and animal	Not classified
3-Iodo-2-Propynyl Butylcarbamate	Multiple animal species	Sensitizing

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value

Melamine	In Vitro	Not mutagenic
Melamine	In vivo	Not mutagenic
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	In Vitro	Not mutagenic
Graphite	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methyl Tris(Butylideneaminooxy)Silane	In Vitro	Not mutagenic
Silica	In Vitro	Not mutagenic
Synthetic Amorphous Silica, Fumed, Crystalline Free	In Vitro	Not mutagenic
Octamethylcyclotetrasiloxane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Melamine	Ingestion	Multiple animal species	Carcinogenic
Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Synthetic Amorphous Silica, Fumed, Crystalline Free	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Melamine	Ingestion	Not classified for development	Rat	NOAEL 1,060 mg/kg/day	during organogenesis
Methyl Tris(Butylideneaminooxy)Silane	Ingestion	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	premating into lactation
Methyl Tris(Butylideneaminooxy)Silane	Ingestion	Not classified for male reproduction	Rat	NOAEL 250 mg/kg/day	28 days
Methyl Tris(Butylideneaminooxy)Silane	Ingestion	Not classified for development	Rat	NOAEL 250 mg/kg/day	premating into lactation
Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
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
Methyl Tris(Butylideneaminooxy) Silane	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
Melamine	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 63 mg/kg/day	13 weeks
Graphite	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Methyl Tris(Butylideneaminooxy) Silane	Ingestion	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 10 mg/kg/day	28 days
Methyl Tris(Butylideneaminooxy) Silane	Ingestion	endocrine system | liver | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 250 mg/kg/day	28 days
Silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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
3-Iodo-2-Propynyl Butylcarbamate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.00116 mg/l	90 days

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

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

SECTION 12: Ecological information

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

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result

Melamine	108-78-1	Bacteria	Experimental	30 minutes	EC50	>10,000 mg/l
Melamine	108-78-1	Green Algae	Experimental	96 hours	EC50	325 mg/l
Melamine	108-78-1	Guppy	Experimental	96 hours	LC50	>3,000 mg/l
Melamine	108-78-1	Water flea	Experimental	48 hours	EC50	48 mg/l
Melamine	108-78-1	Fathead Minnow	Experimental	36 days	NOEC	>=5.1 mg/l
Melamine	108-78-1	Green Algae	Experimental	96 hours	NOEC	98 mg/l
Melamine	108-78-1	Water flea	Experimental	21 days	NOEC	>=11 mg/l
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	70131-67-8		Data not available or insufficient for classification			N/A
Graphite	7782-42-5	Activated sludge	Experimental	3 hours	NOEC	1,012.5 mg/l
Graphite	7782-42-5	Green Algae	Experimental	72 hours	EC50	>100 mg/l
Graphite	7782-42-5	Water flea	Experimental	48 hours	EC50	>100 mg/l
Graphite	7782-42-5	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Graphite	7782-42-5	Green Algae	Experimental	72 hours	NOEC	100 mg/l
Poly(Dimethylsiloxane)	63148-62-9		Data not available or insufficient for classification			N/A
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Green algae	Experimental	72 hours	EC50	94 mg/l
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Rainbow Trout	Experimental	96 hours	LC50	>120 mg/l
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Water flea	Experimental	48 hours	EC50	>120 mg/l
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Water flea	Estimated	21 days	NOEC	100 mg/l
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Green algae	Experimental	72 hours	NOEC	30 mg/l
Silica	7631-86-9		Data not available or insufficient for classification			N/A
Synthetic Amorphous Silica, Fumed, Crystalline	112945-52-5	Green Algae	Experimental	72 hours	EC50	>100 mg/l

Free						
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Water flea	Experimental	24 hours	EC50	>100 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Green Algae	Experimental	72 hours	NOEC	60 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Bacteria	Experimental	5.75 hours	EC50	43 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Crustecea other	Experimental	48 hours	LC50	580 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Green algae	Experimental	72 hours	EC50	603 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Water flea	Experimental	48 hours	EC50	331 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Zebra Fish	Experimental	96 hours	LC50	>934 mg/l
(3-Aminopropyl)Triethoxysilane	919-30-2	Green algae	Experimental	72 hours	NOEC	1.3 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Activated sludge	Experimental	3 hours	EC50	44 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Green algae	Experimental	72 hours	EC50	0.053 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Rainbow Trout	Experimental	96 hours	LC50	0.067 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Water flea	Experimental	48 hours	LC50	0.645 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Fathead Minnow	Experimental	35 days	NOEC	0.0084 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Green algae	Experimental	72 hours	EC10	0.013 mg/l
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Water flea	Experimental	21 days	NOEC	0.0499 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	0.0079 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Melamine	108-78-1	Experimental Biodegradation	14 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301C - MITI (I)
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	70131-67-8	Data not availbl-insufficient			N/A	
Graphite	7782-42-5	Data not availbl-insufficient			N/A	
Poly(Dimethylsiloxane)	63148-62-9	Data not availbl-insufficient			N/A	
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Estimated Hydrolysis		Hydrolytic half-life	60 seconds (t 1/2)	Non-standard method
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	0 % weight	OECD 301A - DOC Die Away Test
Silica	7631-86-9	Data not availbl-insufficient			N/A	
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Data not availbl-insufficient			N/A	
(3-Aminopropyl)Triethoxysilane	919-30-2	Estimated Photolysis		Photolytic half-life (in air)	7.28 hours (t 1/2)	Non-standard method
(3-Aminopropyl)Triethoxysilane	919-30-2	Experimental Hydrolysis		Hydrolytic half-life	8.5 hours (t 1/2)	Non-standard method
(3-Aminopropyl)Triethoxysilane	919-30-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	54 % BOD/ThBOD	OECD 301C - MITI (I)
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Experimental Biodegradation	28 days	Biological Oxygen Demand	21 % BOD/ThBOD	OECD 301F - Manometric Respiro
Octamethylcyclotetrasiloxane	556-67-2	Experimental Photolysis		Photolytic half-life (in air)	31 days (t 1/2)	Non-standard method
Octamethylcyclotetrasiloxane	556-67-2	Experimental Hydrolysis		Hydrolytic half-life	69.3-144 hours (t 1/2)	Non-standard method
Octamethylcyclotetrasiloxane	556-67-2	Experimental Biodegradation	28 days	Carbon dioxide evolution	3.7 % weight	OECD 310 CO2 Headspace

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Melamine	108-78-1	Experimental BCF-Carp	42 days	Bioaccumulation Factor	<3.8	OECD 305E-Bioaccum Fl-thru fis
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	70131-67-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Graphite	7782-42-5	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
Methyl Tris(Butylideneaminooxy)Silane	22984-54-9	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	<0.65	Non-standard method
Silica	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
(3-Aminopropyl)Triethoxysilane	919-30-2	Experimental BCF-Carp	56 days	Bioaccumulation Factor	<3.4	OECD 305E-Bioaccum Fl-thru fis
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.81	Non-standard method
Octamethylcyclotetrasiloxane	556-67-2	Experimental BCF - Fathead Minnow	28 days	Bioaccumulation Factor	12400	Non-standard method

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Not hazardous for transportation.

Marine Transport (IMDG)

UN Number: None assigned.
Proper Shipping Name: None assigned.
Technical Name: None assigned.
Hazard Class/Division: None assigned.
Subsidiary Risk: None assigned.
Packing Group: None assigned.
Limited Quantity: None assigned.
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Air Transport (IATA)

UN Number: None assigned.
Proper Shipping Name: None assigned.
Technical Name: None assigned.
Hazard Class/Division: None assigned.
Subsidiary Risk: None assigned.
Packing Group: None assigned.
Limited Quantity: None assigned.
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

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

Global inventory status
Contact 3M for more information. The components of this 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.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Malaysia SDSs are available at www.3M.com.my