Safety Data Sheet

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

SECTION 1: Identification

1.1. Product identifier
3M(TM) Scotch-Weld(TM) Stainless Steel High Temperature Pipe Sealant PS67 White

Product Identification Numbers
62-3478-5067-9

1.2. Recommended use and restrictions on use

Recommended use
Adhesive

1.3. Supplier's details
Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100
Telephone: 080-45543000, contact Product EHS team
E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number
080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

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

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

2.2. Label elements
Signal Word
DANGER!

Symbols
Exclamation mark | Health Hazard |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure: nervous system respiratory system
H402	Harmful to aquatic life.

PRECAUTIONARY STATEMENTS

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280E	Wear protective gloves.

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.

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	CAS Nbr	% by Wt
Polyethylene Glycol Dimethacrylate	25852-47-5	20 - 50
Tetraethylene Glycol Dioctanoate	18268-70-7	10 - 30
Polyester Resin (NJTS Reg. No. 04499600-7087)	Trade Secret	10 - 30
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Trade Secret	1 - 10
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	1 - 5
α,α-Dimethylbenzyl hydroperoxide	80-15-9	1 - 5
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	81-07-2	1 - 5
Titanium dioxide	13463-67-7	1 - 5

Dihydroxyethyl-p-Toluidine	3077-12-1	<= 1
Methanol	67-56-1	<= 0.8

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
See Section 11.1 Information on toxicological effects

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

SECTION 5: Fire-fighting measures

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

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

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of sulphur.	During combustion.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. 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. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. 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. 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
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. Avoid release to the environment. 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
Protect from sunlight. Store away from heat. Store away from oxidising 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	CAS Nbr	Agency	Limit type	Additional comments
Titanium dioxide	13463-67-7	ACGIH	TWA:10 mg/m³	A4: Not class. as human carcin
Methanol	67-56-1	ACGIH	TWA:200 ppm;STEL:250 ppm	Danger of cutaneous absorption
α,α-Dimethylbenzyl hydroperoxide	80-15-9	AIHA	TWA:6 mg/m3(1 ppm)	SKIN

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
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:
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.
Gloves made from the following material(s) are recommended: Fluoroelastomer

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:
Full facepiece air-purifying respirator suitable for organic vapours 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	Liquid.
Specific Physical Form:	Paste
Color	White
Odor	Mild Odor
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point: NA	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	>=148.9 ºC [@ 101,324.72 Pa]
Flash point	>=100 ºC [*Test Method:*Tagliabue closed cup]
Evaporation rate	Negligible
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	<=666.6 Pa
Vapour density	1.01 [*Ref Std:*AIR=1]
Density	1.1 g/ml [@ 20 ºC]
Relative density	1.1 [@ 20 ºC] [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	300,000 - 400,000 mPa-s [@ 20 ºC] [*Test Method:*Brookfield]
VOC less H2O & exempt solvents	< 15 g/l [*Test Method:*calculated SCAQMD rule 443.1]

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.
Light.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation
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.

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:
Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. 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.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polyethylene Glycol Dimethacrylate	Dermal	Rabbit	LD50 15,500 mg/kg
Polyethylene Glycol Dimethacrylate	Ingestion	Rat	LD50 9,400 mg/kg
Tetraethylene Glycol Dioctanoate	Dermal	Rabbit	LD50 > 20,000 mg/kg
Tetraethylene Glycol Dioctanoate	Ingestion	Rat	LD50 18,000 mg/kg
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Dermal		LD50 estimated to be > 5,000 mg/kg
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Ingestion		LD50 estimated to be > 5,000 mg/kg
Silane, trimethoxyoctyl-, hydrolysis products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silane, trimethoxyoctyl-, hydrolysis products with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silane, trimethoxyoctyl-, hydrolysis products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	Dermal		LD50 estimated to be > 5,000 mg/kg
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	Ingestion	Mouse	LD50 17,000 mg/kg
α,α-Dimethylbenzyl hydroperoxide	Dermal	Rat	LD50 500 mg/kg
α,α-Dimethylbenzyl hydroperoxide	Inhalation-Vapor (4 hours)	Rat	LC50 1.4 mg/l
α,α-Dimethylbenzyl hydroperoxide	Ingestion	Rat	LD50 382 mg/kg
Dihydroxyethyl-p-Toluidine	Dermal	Rabbit	LD50 > 2,000 mg/kg
Dihydroxyethyl-p-Toluidine	Ingestion	Rat	LD50 959 mg/kg
Methanol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
Methanol	Inhalation-Vapor		LC50 estimated to be 10 - 20 mg/l
Methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polyethylene Glycol Dimethacrylate	Rabbit	Mild irritant
Silane, trimethoxyoctyl-, hydrolysis products with silica	Rabbit	No significant irritation
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Human and animal	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
α,α-Dimethylbenzyl hydroperoxide	Rabbit	Corrosive
Methanol	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value

Polyethylene Glycol Dimethacrylate	Rabbit	Moderate irritant
Silane, trimethoxyoctyl-, hydrolysis products with silica	Rabbit	No significant irritation
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
α,α-Dimethylbenzyl hydroperoxide	Rabbit	Corrosive
Methanol	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Polyethylene Glycol Dimethacrylate	Guinea pig	Not classified
Silane, trimethoxyoctyl-, hydrolysis products with silica	Human and animal	Not classified
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Human	Not classified
Titanium dioxide	Human and animal	Not classified
Methanol	Guinea pig	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Silane, trimethoxyoctyl-, hydrolysis products with silica	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
α,α-Dimethylbenzyl hydroperoxide	In vivo	Not mutagenic
α,α-Dimethylbenzyl hydroperoxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methanol	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Silane, trimethoxyoctyl-, hydrolysis products with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Not specified.	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Methanol	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Silane, trimethoxyoctyl-, hydrolysis products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation

Silane, trimethoxyoctyl-, hydrolysis products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silane, trimethoxyoctyl-, hydrolysis products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Methanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,600 mg/kg/day	21 days
Methanol	Ingestion	Toxic to development	Mouse	LOAEL 4,000 mg/kg/day	during organogenesis
Methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3 mg/l	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polyethylene Glycol Dimethacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
α,α-Dimethylbenzyl hydroperoxide	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
α,α-Dimethylbenzyl hydroperoxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
α,α-Dimethylbenzyl hydroperoxide	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
Methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Methanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Silane, trimethoxyoctyl-, hydrolysis products with silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL Not available	90 days
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
α,α-Dimethylbenzyl hydroperoxide	Inhalation	nervous system | respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.2 mg/l	7 days
α,α-Dimethylbenzyl hydroperoxide	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 0.03 mg/l	90 days
Methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks
Methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
Methanol	Ingestion	liver | nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days

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

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

SECTION 12: Ecological information

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

12.1. Toxicity

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

Chronic aquatic hazard:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Polyethylene Glycol Dimethacrylate	25852-47-5		Data not available or insufficient for classification			
Tetraethylene Glycol Dioctanoate	18268-70-7	Fathead minnow	Estimated	96 hours	EC50	>100 mg/l
Tetraethylene Glycol Dioctanoate	18268-70-7	Mysid Shrimp	Endpoint not reached	48 hours	LC50	>100 mg/l
Tetraethylene Glycol Dioctanoate	18268-70-7	Water flea	Estimated	48 hours	LC50	>100 mg/l
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Trade Secret		Data not available or insufficient for classification			
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	Water flea	Experimental	24 hours	EC50	>100 mg/l
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Silane, trimethoxyocty	112945-52-5	Green Algae	Experimental	72 hours	EC50	>100 mg/l

l-, hydrolysis products with silica						
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	Green Algae	Experimental	72 hours	NOEC	60 mg/l
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Green algae	Experimental	72 hours	EC50	3.1 mg/l
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Water flea	Experimental	48 hours	EC50	18.84 mg/l
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Rainbow trout	Experimental	96 hours	LC50	3.9 mg/l
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Green algae	Experimental	72 hours	NOEC	1 mg/l
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	81-07-2	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	81-07-2	Guppy	Estimated	96 hours	LC50	>100 mg/l
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	81-07-2	Green algae	Experimental	72 hours	EC50	>200 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Dihydroxyethyl-p-Toluidine	3077-12-1	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Methanol	67-56-1	Green Algae	Experimental	96 hours	EC50	22,000 mg/l
Methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	EC50	16.9 mg/l
Methanol	67-56-1	Water flea	Experimental	24 hours	EC50	20,803 mg/l
Methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
Methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
Methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	NOEC	9.96 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol

Polyethylene Glycol Dimethacrylate	25852-47-5	Data not available-insufficient			N/A	
Tetraethylene Glycol Dioctanoate	18268-70-7	Estimated Biodegradation	28 days	BOD	98 % weight	OECD 301E - Modified OECD Scre
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Trade Secret	Data not available-insufficient			N/A	
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	Data not available-insufficient			N/A	
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Experimental Biodegradation	28 days	BOD	0 % BOD/ThBOD	OECD 301C - MITI test (I)
1,2-Benzisothiazol-3(2H)-one 1,1-dioxide	81-07-2	Estimated Biodegradation	28 days	BOD	32.09 % BOD/ThBOD	OECD 301F - Manometric respirometry
Titanium dioxide	13463-67-7	Data not available-insufficient			N/A	
Dihydroxyethyl-p-Toluidine	3077-12-1	Experimental Biodegradation	28 days	BOD	>48 % weight	OECD 301D - Closed bottle test
Methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 % BOD/ThBOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Polyethylene Glycol Dimethacrylate	25852-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tetraethylene Glycol Dioctanoate	18268-70-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fluoropolymer (NJTS Reg. No. 04499600-6701)	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silane, trimethoxyoctyl-, hydrolysis products with silica	112945-52-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
α,α-Dimethylbenzyl hydroperoxide	80-15-9	Experimental Bioconcentration		Log Kow	1.82	Other methods
1,2-Benzisothiazol-	81-07-2	Experimental Bioconcentrati		Log Kow	0.3	Other methods

3(2H)-one 1,1-dioxide		on				
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Other methods
Dihydroxyethyl-p-Toluidine	3077-12-1	Estimated Bioconcentration		Bioaccumulation factor	2.8	Estimated: Bioconcentration factor
Methanol	67-56-1	Experimental Bioconcentration		Log Kow	-0.77	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other Adverse effects
No information available.

SECTION 13: Disposal considerations

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

Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product 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.

SECTION 14: Transport Information

Not hazardous for transportation.

Air Transport (IATA)Regulations
UN No Not applicable
Proper Shipping Name Not applicable
Hazard Classs/Division Not applicable
Subsidiary Risk Not applicable
Packing Group: Not applicable

Marine Transport (IMDG)
UN No Not applicable
Proper Shipping Name Not applicable
Hazard Classs/Division Not applicable
Subsidiary Risk Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

SECTION 15: Regulatory information

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

Global inventory status
All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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 Japan Chemical Substance Control Law. 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. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

Applicable Environmental, Health and Safety Regulations
The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
Hazardous Waste(Management , Handling & Transboundary) Rules, 2008
Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
Methanol

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

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 1 **Instability:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:
No revision 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 India SDSs are available at http://solutions.3mindia.co.in