Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier
3M™ Screen Printing UV Ink Series 9808 Opaque White

Product Identification Numbers
75-3470-5598-2 75-3500-1032-0

1.2. Recommended use and restrictions on use

Intended Use
Ink

Specific Use
Screen Printing Ink

Restrictions on use
Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Commercial Solutions Division
Address:	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
Telephone:	(800) 364-3577
Website:	www.3M.ca

1.4. Emergency telephone number
Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

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

2.2. Label elements
Signal word
Danger

Symbols
Exclamation mark | Health Hazard |

Pictograms

Hazard statements

Causes serious eye irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure: respiratory system |

Precautionary statements

Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention.

Storage:
Store locked up.

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

2.3. Other hazards
None known.

7% of the mixture consists of ingredients of unknown acute oral toxicity.
7% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Phenoxy ET Acrylate	48145-04-6	10 - 30 Trade Secret *	2-Propenoic acid, 2-phenoxyethyl ester
Titanium Dioxide	13463-67-7	20 - 30 Trade Secret *	Titanium oxide (TiO2)

Vinylcaprolactam	2235-00-9	10 - 30 Trade Secret *	2H-Azepin-2-one, 1-ethenylhexahydro-; Vinylcaprolactam
METHACRYLATE POLYMER	Trade Secret	10 - 20	Not Applicable
ALIPHATIC URETHANE ACRYLATE	Trade Secret	5 - 10	Not Applicable
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	71868-10-5	1 - 5 Trade Secret *	2-Methyl-4'-(methylthio)-2-morpholinopropiophenone
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	75980-60-8	1 - 5 Trade Secret *	2,4,6-Trimethylbenzoyl diphenyl phosphine oxide; Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
Calcium Carbonate	471-34-1	1 - 5	Carbonic acid calcium salt (1:1)
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	7473-98-5	1 - 3	1-Propanone, 2-hydroxy-2-methyl-1-phenyl-
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	1 - 3	Silane, dichlorodimethyl-, reaction products with silica
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	52408-84-1	0.1 - 1.0 Trade Secret *	glycerol, propoxylated, esters with Acrylic acid; Propoxylated glycerol triacrylate
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	7328-17-8	0.1 - 1.0 Trade Secret *	2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl ester; Carbitol acrylate
OCTAMETHYLCYCLOTETRASILOXANE	556-67-2	< 0.5	Octamethylcyclotetrasiloxane

ALIPHATIC URETHANE ACRYLATE is a non-hazardous Trade Secret material according to WHMIS criteria.
METHACRYLATE POLYMER is a non-hazardous Trade Secret material according to WHMIS criteria.

*The actual concentration of this ingredient has been withheld as a trade secret.

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

Allergic skin reaction (redness, swelling, blistering, and itching). 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. 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
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Formaldehyde	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. 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 authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. 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. 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
Protect from sunlight. Store away from heat. 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
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	
Vinylcaprolactam	2235-00-9	Manufacturer determined	TWA(8 hours):0.1 ppm(0.57 mg/m3)	
OCTAMETHYLCYCLOTETRASILOXANE	556-67-2	AIHA	TWA:10 ppm	

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. 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 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:	Liquid

Colour	White
Odour	Acrylate
Odour threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point	> 148.9 ºC
Flash Point	> 93.3 ºC [*Test Method:*Pensky-Martens Closed Cup]
Evaporation rate	< 1 [*Ref Std:*BUOAC=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapour Pressure	< 160 Pa [@ 20 ºC]
Vapour Density and/or Relative Vapour Density	*No Data Available*
Density	Approximately 1.3 g/ml
Relative density	Approximately 1.3 [*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/Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	6 g/l
Percent volatile	1 - 5 % weight
VOC Less H2O & Exempt Solvents	6 g/l

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 may occur. Upon loss of initiator or with exposure to heat.

10.4. Conditions to avoid
Sparks and/or flames
Heat

10.5. Incompatible materials
Strong oxidizing 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 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:
Contact with the skin during product use is not expected to result in significant irritation. 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:

Prolonged or repeated exposure may cause target organ effects:
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/or respiratory failure.

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

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

Ingredient	CAS No.	Class Description	Regulation
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on 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
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
Phenoxy ET Acrylate	Dermal	Rat	LD50 > 2,000 mg/kg
Phenoxy ET Acrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
METHACRYLATE POLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg

METHACRYLATE POLYMER	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Vinylcaprolactam	Dermal	Rabbit	LD50 1,700 mg/kg
Vinylcaprolactam	Ingestion	Rat	LD50 1,049 mg/kg
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Silane, dichlorodimethyl-, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silane, dichlorodimethyl-, reaction products with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Dermal	Rat	LD50 6,929 mg/kg
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Ingestion	Rat	LD50 1,694 mg/kg
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Dermal	Rat	LD50 > 2,000 mg/kg
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Ingestion	Rat	LD50 967 mg/kg
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Ingestion	Rat	LD50 1,860 mg/kg
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	Dermal	Rabbit	LD50 > 2,000 mg/kg
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	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
Titanium Dioxide	Rabbit	No significant irritation
Phenoxy ET Acrylate	Rabbit	No significant irritation
Vinylcaprolactam	Rabbit	Minimal irritation
Calcium Carbonate	Rabbit	No significant irritation
Silane, dichlorodimethyl-, reaction products with silica	Rabbit	No significant irritation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Rabbit	No significant irritation
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Rabbit	No significant irritation
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Rabbit	No significant irritation
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Rabbit	Irritant
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	Rabbit	Minimal irritation
OCTAMETHYLCYCLOTETRASILOXANE	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Titanium Dioxide	Rabbit	No significant irritation
Phenoxy ET Acrylate	Rabbit	No significant irritation
Vinylcaprolactam	Rabbit	Severe irritant
Calcium Carbonate	Rabbit	No significant irritation
Silane, dichlorodimethyl-, reaction products with silica	Rabbit	No significant irritation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Rabbit	No significant irritation

2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Rabbit	Mild irritant
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Rabbit	No significant irritation
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Rabbit	Severe irritant
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	Rabbit	Severe irritant
OCTAMETHYLCYCLOTETRASILOXANE	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Titanium Dioxide	Human and animal	Not classified
Phenoxy ET Acrylate	Guinea pig	Sensitizing
Vinylcaprolactam	Mouse	Sensitizing
Silane, dichlorodimethyl-, reaction products with silica	Human and animal	Not classified
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Mouse	Sensitizing
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Guinea pig	Sensitizing
.ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[POLYPROPYLENE GLYCOL ACRYLATE]	Mouse	Sensitizing
OCTAMETHYLCYCLOTETRASILOXANE	Human and animal	Not classified

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
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Vinylcaprolactam	In Vitro	Not mutagenic
Silane, dichlorodimethyl-, reaction products with silica	In Vitro	Not mutagenic
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	In Vitro	Not mutagenic
OCTAMETHYLCYCLOTETRASILOXANE	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Silane, dichlorodimethyl-, reaction products with silica	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
Phenoxy ET Acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 800 mg/kg/day	43 days
Phenoxy ET Acrylate	Ingestion	Toxic to female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
Phenoxy ET Acrylate	Ingestion	Toxic to development	Rat	NOAEL 300 mg/kg/day	premating into lactation
Calcium Carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation

Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Not classified for development	Rat	NOAEL 150 mg/kg/day	during gestation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Toxic to female reproduction	Rat	NOAEL 200 mg/kg/day	premating into lactation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Toxic to male reproduction	Rat	NOAEL 60 mg/kg/day	85 days
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Ingestion	Toxic to female reproduction	Rat	LOAEL 40 mg/kg/day	1 generation
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Ingestion	Toxic to development	Rat	LOAEL 40 mg/kg/day	1 generation
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
Vinylcaprolactam	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
Calcium Carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
Vinylcaprolactam	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.001 mg/l	28 days
Vinylcaprolactam	Inhalation	blood | liver | kidney and/or bladder | eyes	Not classified	Rat	NOAEL 0.18 mg/l	90 days
Vinylcaprolactam	Ingestion	liver	Not classified	Rat	NOAEL 260 mg/kg/day	3 months
Calcium Carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Silane, dichlorodimethyl-, reaction products with silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
2,4,6-Trimethylbenzoyldiphenyl phosphine oxide	Ingestion	skin | blood | liver | kidney and/or bladder | nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Ingestion	peripheral nervous system | eyes	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 75 mg/kg/day	90 days
OCTAMETHYLCYCLOTETRASILOXANE	Dermal	hematopoietic system	Not classified	Rabbit	NOAEL 960 mg/kg/day	3 weeks
OCTAMETHYLCYCLOT	Inhalation	liver	Not classified	Rat	NOAEL 8.5	13 weeks

ETRASILOXANE					mg/l	
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 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

No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. 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

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the 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.

SECTION 16: Other information

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.

Health: 2 **Flammability:** 1 **Instability:** 0 **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.

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