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 Screen Printing UV Ink 9843 Medium Yellow

Product Identification Numbers
75-3470-6907-4

7000056114

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

Identified uses
Ink

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:	ner-productstewardship@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
Reproductive Toxicity, Category 1B - Repr. 1B; H360FD
Specific Target Organ Toxicity-Repeated Exposure, Category 1 - STOT RE 1; H372
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

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) |GHS09 (Environment) |

Pictograms



Ingredient	Identifier(s)	EC No.	% by Wt
2-Phenoxyethyl acrylate	48145-04-6	256-360-6	15 - 40
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	218-787-6	10 - 30
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	1 - 5
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.5 - 1.5
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	500-114-5	< 1
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	230-811-7	< 1
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	500-066-5	< 1

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure: liver | respiratory system.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P260A	Do not breathe vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.

Response:

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.

11% of the mixture consists of components of unknown acute oral toxicity.
11% of the mixture consists of components of unknown acute dermal toxicity.

Contains 11% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

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
2-Phenoxyethyl acrylate	(CAS-No.) 48145-04-6 (EC-No.) 256-360-6	15 - 40	Skin Sens. 1A, H317 Repr. 2, H361df Aquatic Chronic 2, H411
Methacrylate polymer	Trade Secret	10 - 30	Substance not classified as hazardous
Bismuth vanadium tetraoxide	(CAS-No.) 14059-33-7 (EC-No.) 237-898-0	10 - 30	STOT RE 2, H373
1-Vinylhexahydro-2H-azepin-2-one	(CAS-No.) 2235-00-9 (EC-No.) 218-787-6	10 - 30	Acute Tox. 4, H312 Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT RE 1, H372
Aliphatic urethane acrylate	Trade Secret	7 - 13	Substance not classified as hazardous
Synthetic amorphous silica, fumed, crystalline-free	(CAS-No.) 112945-52-5	1 - 5	Substance with a national occupational exposure limit
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	(CAS-No.) 71868-10-5 (EC-No.) ELINCS 400-600-6	1 - 5	Acute Tox. 4, H302 Repr. 1B, H360FD Aquatic Chronic 2, H411 Repr. 1B, H360FD
Aluminium salt	Trade Secret	1 - 5	Substance not classified as hazardous
Zinc salt	Trade Secret	1 - 5	Substance not classified as hazardous
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	(CAS-No.) 106276-80-6	1 - 5	Substance not classified as hazardous
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	(CAS-No.) 119313-12-1 (EC-No.) 404-360-3	0.5 - 1.5	Repr. 1B, H360D Aquatic Acute 1, H400,M=1

			Aquatic Chronic 1, H410,M=1
2-(2-Ethoxyethoxy)ethyl acrylate	(CAS-No.) 7328-17-8 (EC-No.) 230-811-7	< 1	Acute Tox. 3, H311 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 3, H412
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	(CAS-No.) 28961-43-5 (EC-No.) 500-066-5	< 1	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412
Glycerol, propoxylated, esters with acrylic acid	(CAS-No.) 52408-84-1 (EC-No.) 500-114-5	< 1	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2 (EC-No.) 209-136-7	< 0.25	Repr. 2, H361f Aquatic Chronic 1, H410,M=10 Flam. Liq. 3, H226

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. 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
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. Advice 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. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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
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 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.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Do not 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
Keep cool. Protect from sunlight. Store away from heat. 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	Identifier(s)	Agency	Limit type	Additional comments
Silica, amorphous, inhalable dust	112945-52-5	UK HSE	TWA(as respirable dust):2.4 mg/m3;TWA(as inhalable dust):6 mg/m3	
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Manufacturer determined	TWA(8 hours):0.1 ppm(0.57 mg/m3)	

UK HSE : 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 16321

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 (e.g., spraying, high splash potential, etc.),

then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

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
Half facepiece or full facepiece supplied-air respirator

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
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	Liquid.
Specific Physical Form:	Liquid.
Colour	Yellow
Odor	Slight Acrylate
Odour threshold	*No data available.*
Melting point/freezing point	*Not applicable.*
Boiling point/boiling range	> 148.9 ºC
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	> 93.3 ºC [*Test Method:*Pensky-Martens 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	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	< 160 Pa [@ 20 ºC]
Density	approximately 1.3 g/ml
Relative density	approximately 1.3 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	< 1 [*Ref Std:*BUOAC=1]
Percent volatile	1 - 5 % weight

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 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 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
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
May be harmful if swallowed.
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:
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	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
2-Phenoxyethyl acrylate	Dermal	Rat	LD50 > 2,000 mg/kg
2-Phenoxyethyl 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
1-Vinylhexahydro-2H-azepin-2-one	Dermal	Rabbit	LD50 1,700 mg/kg
1-Vinylhexahydro-2H-azepin-2-one	Ingestion	Rat	LD50 1,049 mg/kg
Bismuth vanadium tetraoxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Bismuth vanadium tetraoxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.2 mg/l
Bismuth vanadium tetraoxide	Ingestion	Rat	LD50 > 5,000 mg/kg
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.04 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Ingestion	Rat	LD50 > 5,000 mg/kg
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Dermal	similar compounds	LD50 > 2,500 mg/kg
Synthetic amorphous silica, fumed, crystalline-free	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Dermal	Rat	LD50 > 2,000 mg/kg
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Ingestion	Rat	LD50 > 5,000 mg/kg
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Dermal	Rat	LD50 > 2,000 mg/kg
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Ingestion	Rat	LD50 967 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
2-(2-Ethoxyethoxy)ethyl acrylate	Dermal	Rat	LD50 > 400 mg/kg
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	Rat	LD50 1,860 mg/kg
Glycerol, propoxylated, esters with acrylic acid	Dermal	Rabbit	LD50 > 2,000 mg/kg
Glycerol, propoxylated, esters with acrylic acid	Ingestion	Rat	LD50 > 2,000 mg/kg
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Dermal	Rabbit	LD50 > 13,200 mg/kg
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	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 > 4,800 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
2-Phenoxyethyl acrylate	Rabbit	No significant irritation

1-Vinylhexahydro-2H-azepin-2-one	Rabbit	Minimal irritation
Bismuth vanadium tetraoxide	Rabbit	No significant irritation
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	In vitro data	No significant irritation
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Rabbit	No significant irritation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline-free	Rabbit	No significant irritation
2-(2-Ethoxyethoxy)ethyl acrylate	Rabbit	Irritant
Glycerol, propoxylated, esters with acrylic acid	Rabbit	Minimal irritation
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Rabbit	Minimal irritation
octamethylcyclotetrasiloxane	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
2-Phenoxyethyl acrylate	Rabbit	No significant irritation
1-Vinylhexahydro-2H-azepin-2-one	Rabbit	Severe irritant
Bismuth vanadium tetraoxide	Rabbit	No significant irritation
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	In vitro data	No significant irritation
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Rabbit	No significant irritation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline-free	Rabbit	No significant irritation
2-(2-Ethoxyethoxy)ethyl acrylate	Rabbit	Severe irritant
Glycerol, propoxylated, esters with acrylic acid	Rabbit	Severe irritant
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Rabbit	Severe irritant
octamethylcyclotetrasiloxane	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
2-Phenoxyethyl acrylate	Guinea pig	Sensitising
1-Vinylhexahydro-2H-azepin-2-one	Mouse	Sensitising
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Human	Not classified
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Guinea pig	Not classified
Synthetic amorphous silica, fumed, crystalline-free	Human and animal	Not classified
2-(2-Ethoxyethoxy)ethyl acrylate	Guinea pig	Sensitising
Glycerol, propoxylated, esters with acrylic acid	Mouse	Sensitising
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	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
1-Vinylhexahydro-2H-azepin-2-one	In Vitro	Not mutagenic
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	In Vitro	Not mutagenic
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	In vivo	Not mutagenic
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	In Vitro	Not mutagenic
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	In vivo	Not mutagenic

Synthetic amorphous silica, fumed, crystalline-free	In Vitro	Not mutagenic
2-(2-Ethoxyethoxy)ethyl acrylate	In Vitro	Not mutagenic
Glycerol, propoxylated, esters with acrylic acid	In Vitro	Some positive data exist, but the data are not sufficient for classification
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	In vivo	Not mutagenic
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	In Vitro	Some positive data exist, but the data are not sufficient for classification
octamethylcyclotetrasiloxane	In vivo	Not mutagenic
octamethylcyclotetrasiloxane	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Synthetic amorphous silica, fumed, crystalline-free	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
octamethylcyclotetrasiloxane	Inhalation	Rat	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
2-Phenoxyethyl acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 800 mg/kg/day	43 days
2-Phenoxyethyl acrylate	Ingestion	Toxic to female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
2-Phenoxyethyl acrylate	Ingestion	Toxic to development	Rat	NOAEL 300 mg/kg/day	premating into lactation
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	29 days
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Ingestion	Toxic to development	Rat	NOAEL 30 mg/kg/day	1 generation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Ingestion	Toxic to female reproduction	Rat	LOAEL 40 mg/kg/day	1 generation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Ingestion	Toxic to development	Rat	LOAEL 40 mg/kg/day	1 generation
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
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 225 mg/kg/day	premating into lactation
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 225 mg/kg/day	5 weeks
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	Not classified for development	Rat	NOAEL 225 mg/kg/day	premating into lactation
Glycerol, propoxylated, esters with acrylic acid	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	premating into lactation
Glycerol, propoxylated, esters with acrylic acid	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	29 days
Glycerol, propoxylated, esters with acrylic	Ingestion	Not classified for development	Rat	NOAEL	during

acid				1,000 mg/kg/day	organogenesis
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	29 days
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
octamethylcyclotetrasiloxane	Inhalation	Not classified for male reproduction	Rat	NOAEL 8.5 mg/l	2 generation
octamethylcyclotetrasiloxane	Inhalation	Not classified for development	Rabbit	NOAEL 6 mg/l	during organogenesis
octamethylcyclotetrasiloxane	Ingestion	Not classified for development	Rabbit	NOAEL 100 mg/kg	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
1-Vinylhexahydro-2H-azepin-2-one	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
2-(2-Ethoxyethoxy)ethyl acrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Glycerol, propoxylated, esters with acrylic acid	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	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
1-Vinylhexahydro-2H-azepin-2-one	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.001 mg/l	28 days
1-Vinylhexahydro-2H-azepin-2-one	Inhalation	blood | liver | kidney and/or bladder | eyes	Not classified	Rat	NOAEL 0.18 mg/l	90 days
1-Vinylhexahydro-2H-azepin-2-one	Ingestion	liver	Not classified	Rat	NOAEL 260 mg/kg/day	3 months
Bismuth vanadium tetraoxide	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.02 mg/l	28 days
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.01 mg/l	5 days
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	Inhalation	heart | endocrine system | gastrointestinal tract | hematopoietic system | liver | immune system | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 0.03 mg/l	5 days
2,3,4,5-Tetrachloro-6-	Ingestion	heart | endocrine	Not classified	Rat	NOAEL	28 days

cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide		system | gastrointestinal tract | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system			1,000 mg/kg/day	
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	28 days
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	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
Synthetic amorphous silica, fumed, crystalline-free	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 25 mg/kg/day	5 weeks
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	immune system | hematopoietic system | nervous system	Not classified	Rat	NOAEL 225 mg/kg/day	5 weeks
Glycerol, propoxylated, esters with acrylic acid	Dermal	heart	Not classified	Rabbit	NOAEL 500 mg/kg/day	2 weeks
Glycerol, propoxylated, esters with acrylic acid	Dermal	skin	Not classified	Rabbit	LOAEL 500 mg/kg/day	2 weeks
Glycerol, propoxylated, esters with acrylic acid	Dermal	liver | nervous system | kidney and/or bladder | respiratory system	Not classified	Rabbit	NOAEL 500 mg/kg/day	2 weeks
Glycerol, propoxylated, esters with acrylic acid	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 750 mg/kg/day	29 days
Glycerol, propoxylated, esters with acrylic acid	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 150 mg/kg/day	90 days
Glycerol, propoxylated, esters with acrylic acid	Ingestion	immune system	Not classified	Rat	NOAEL 750 mg/kg/day	29 days
Glycerol, propoxylated, esters with acrylic acid	Ingestion	endocrine system | hematopoietic system | nervous system | eyes	Not classified	Rat	NOAEL 375 mg/kg/day	90 days
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 100 mg/kg/day	29 days
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	endocrine system | hematopoietic system | liver | immune system | nervous system | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	29 days
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	2 weeks

					mg/kg/day	

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	Identifier(s)	Organism	Type	Exposure	Test endpoint	Test result
2-Phenoxyethyl acrylate	48145-04-6	Activated sludge	Experimental	3 hours	EC50	177 mg/l
2-Phenoxyethyl acrylate	48145-04-6	Golden Orfe	Experimental	96 hours	LC50	10 mg/l
2-Phenoxyethyl acrylate	48145-04-6	Green algae	Experimental	72 hours	EC50	4.4 mg/l
2-Phenoxyethyl acrylate	48145-04-6	Water flea	Experimental	48 hours	EC50	1.21 mg/l
2-Phenoxyethyl acrylate	48145-04-6	Green algae	Experimental	72 hours	EC10	0.71 mg/l
Bismuth vanadium tetraoxide	14059-33-7	Green algae	Analogous Compound	72 hours	EC50	>100 mg/l
Bismuth vanadium tetraoxide	14059-33-7	Zebra Fish	Analogous Compound	96 hours	LC50	>100 mg/l
Bismuth vanadium tetraoxide	14059-33-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Methacrylate polymer	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Bacteria	Experimental	17 hours	EC50	622 mg/l
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Green algae	Experimental	72 hours	ErC50	>100 mg/l
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Water flea	Experimental	48 hours	EC50	>100 mg/l
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Zebra Fish	Experimental	96 hours	LC50	307 mg/l
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Green algae	Experimental	72 hours	NOEC	25 mg/l
Aliphatic urethane acrylate	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
2-methyl-1-(4-methylthiophenyl)-	71868-10-5	Green algae	Experimental	72 hours	ErC50	1.6 mg/l

2-morpholinopropan-1-one						
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Water flea	Experimental	24 hours	EC50	15.3 mg/l
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Zebra Fish	Experimental	96 hours	LC50	9 mg/l
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Green algae	Experimental	72 hours	ErC10	0.92 mg/l
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Water flea	Experimental	21 days	EC10	1.75 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Water flea	Analogous Compound	48 hours	No tox obs at lmt of water sol	>100 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Zebra Fish	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Activated sludge	Experimental	30 minutes	EC50	>1,000 mg/l

2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Redworm	Experimental	14 days	LC50	>1,000 mg/kg (Dry Weight)
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Green algae	Analogous Compound	72 hours	ErC50	>173.1 mg/l
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Sediment organism	Analogous Compound	96 hours	EC50	8,500 mg/kg (Dry Weight)
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Water flea	Analogous Compound	24 hours	EL50	>10,000 mg/l
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Zebra Fish	Analogous Compound	96 hours	LL50	>10,000 mg/l
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Green algae	Analogous Compound	72 hours	NOEC	173.1 mg/l
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Water flea	Analogous Compound	21 days	NOEC	68 mg/l
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Water flea	Experimental	24 hours	No tox obs at lmt of water sol	>100 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Zebra Fish	Experimental	96 hours	LC50	0.46 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Water flea	Experimental	21 days	No tox obs at lmt of water sol	100 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Activated sludge	Experimental	30 minutes	EC50	>100 mg/l
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Cucumber	Experimental	16 days	EC50	>316.2 mg/kg (Dry Weight)
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Redworm	Experimental	14 days	LC50	>1,000 mg/kg (Dry Weight)
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Activated sludge	Experimental	3 hours	EC20	507 mg/l

Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Green algae	Experimental	72 hours	ErC50	12.2 mg/l
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Water flea	Experimental	48 hours	EC50	91.4 mg/l
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Zebra Fish	Experimental	96 hours	LC50	5.74 mg/l
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Green algae	Experimental	72 hours	NOEC	0.921 mg/l
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Golden Orfe	Experimental	96 hours	LC50	10 mg/l
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Green algae	Experimental	72 hours	ErC50	3.2 mg/l
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Water flea	Experimental	48 hours	EC50	10.56 mg/l
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Green algae	Experimental	72 hours	NOEC	<1 mg/l
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Activated sludge	Experimental	3 hours	EC50	770 mg/l
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Green algae	Experimental	72 hours	ErC50	2.2 mg/l
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Water flea	Experimental	48 hours	EC50	70.7 mg/l
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Zebra Fish	Experimental	96 hours	LC50	1.95 mg/l
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Green algae	Experimental	72 hours	ErC10	0.323 mg/l
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Activated sludge	Experimental	3 hours	EC20	292 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

12.2. Persistence and degradability

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
2-Phenoxyethyl acrylate	48145-04-6	Experimental Biodegradation	28 days	BOD	22.3 %BOD/ThOD	OECD 301D - Closed bottle test
2-Phenoxyethyl acrylate	48145-04-6	Estimated Photolysis		Photolytic half-life (in air)	9.7 hours (t 1/2)	
Bismuth vanadium tetraoxide	14059-33-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Methacrylate polymer	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	30-40 %removal of DOC	OECD 301A - DOC Die Away Test
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Experimental Biodegradation		Dissolv. Organic Carbon Deplet	98 %removal of DOC	OECD 302B Zahn-Wellens/EVPA
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>1 years (t 1/2)	OECD 111 Hydrolysis func of pH
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Experimental Hydrolysis		Hydrolytic half-life acidic pH	6.5 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Aliphatic urethane acrylate	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Experimental Biodegradation	28 days	CO2 evolution	≤1 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Modeled Biodegradation	28 days	BOD	3 %BOD/ThOD	Catalogic™
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Experimental Biodegradation	28 days	CO2 evolution	3 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>1 years (t 1/2)	
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Experimental Biodegradation	28 days	CO2 evolution	72-85 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Experimental Biodegradation	28 days	CO2 evolution	98 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	313 days (t 1/2)	OECD 111 Hydrolysis func of pH
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Experimental Hydrolysis		Hydrolytic half-life basic pH	4.65 days (t 1/2)	OECD 111 Hydrolysis func of pH
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Experimental Biodegradation	28 days	CO2 evolution	60 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
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

12.3 : Bioaccumulative potential

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
2-Phenoxyethyl acrylate	48145-04-6	Experimental Bioconcentration		Log Kow	2.58	
Bismuth vanadium tetraoxide	14059-33-7	Experimental BCF - Fish	56 days	Bioaccumulation factor	<14	OECD305-Bioconcentration
Methacrylate polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Experimental Bioconcentration		Log Kow	1.2	similar to OECD 107
Aliphatic urethane acrylate	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Experimental BCF - Fish	56 days	Bioaccumulation factor	<10	
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Experimental Bioconcentration		Log Kow	3.09	
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Modeled Bioconcentration		Bioaccumulation factor	35	Catalogic™
Synthetic amorphous silica, fumed, crystalline-free	112945-52-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Experimental Bioconcentration		Log Kow	2.91	OECD 107 log Kow shke flsk mtd
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Experimental Bioconcentration		Log Kow	2.52	OECD 107 log Kow shke flsk mtd
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Experimental Bioconcentration		Log Kow	1.105	OECD 117 log Kow HPLC method
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Experimental Bioconcentration		Log Kow	2.89	OECD 107 log Kow shke flsk mtd
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

12.4. Mobility in soil

Material	Identifier(s)	Test type	Study Type	Test result	Protocol

2-Phenoxyethyl acrylate	48145-04-6	Estimated Mobility in Soil	Koc	220 l/kg	Episuite™
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	Modeled Mobility in Soil	Koc	47 l/kg	Episuite™
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Experimental Mobility in Soil	Koc	626 l/kg	OECD 121 Estim. of Koc by HPLC
2,3,4,5-Tetrachloro-6-cyanobenzoic acid, methyl ester, reaction products with p-phenylenediamine and sodium methoxide	106276-80-6	Analogous Compound Mobility in Soil	Koc	1,614 l/kg	OECD 121 Estim. of Koc by HPLC
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Experimental Mobility in Soil	Koc	48,978 l/kg	OECD 121 Estim. of Koc by HPLC
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Experimental Mobility in Soil	Koc	100 l/kg	OECD 121 Estim. of Koc by HPLC
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	Experimental Mobility in Soil	Koc	<17.8 l/kg	OECD 121 Estim. of Koc by HPLC
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	Identifier(s)	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)

080312* Waste ink containing dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 - UN Number or ID number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(PHENOXY ETHYL ACRYLATE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(PHENOXY ETHYL ACRYLATE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(PHENOXY ETHYL ACRYLATE;PHOSPHOROUS ACID; PHENOXY ETHYL ACRYLATE)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	Environmentally Hazardous	Not applicable.	Marine Pollutant
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 Marine Transport in bulk according to IMO instruments	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	M6	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

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

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	Identifier(s)
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	Identifier(s)

Ingredient	Identifier(s)

Ingredient	Identifier(s)
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5
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. 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

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
E2 Hazardous to the Aquatic environment	200	500

Seveso named dangerous substances, Annex 1, Part 2
None

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.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H361df	Suspected of damaging fertility. Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H372	Causes damage to organs through prolonged or repeated exposure: liver | respiratory system.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
Section 14 - Not Hazardous for Transportation information was modified.
EU Section 14 - Table Data 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.