Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier
3M™ Screen Printing UV Ink 9802 Opaque Black

Product Identification Numbers
7000056068 75-3470-5595-8

1.2. Recommended use and restrictions on use

Recommended use
Screen Printing Ink, Professional printing ink for use in traffic safety systems.

For Industrial or Professional use only

1.3. Supplier's details
Address: 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone: (09) 477 4040
E Mail: innovation@nz.mmm.com
Website: 3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Eye irritation: Category 2
Skin sensitisation: Category 1
Carcinogenicity: Category 2
Reproductive Toxicity: Category 1
Specific target organ toxicity – repeated exposure: Category 1
Hazardous to the aquatic environment chronic: Category 2

2.2. Label elements
SIGNAL WORD
Danger

Symbols:
Exclamation mark |Health Hazard |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280F	Wear respiratory protection.

Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

P405	Store locked up.

Disposal

P501	Dispose of contents/container via an approved hazardous waste disposal contractor.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
2-Phenoxyethyl acrylate	48145-04-6	30 - 40
Methacrylate polymer	Trade Secret	10 - 20
1-Vinylhexahydro-2H-azepin-2-one	2235-00-9	10 - 20
Aliphatic urethane acrylate	Trade Secret	7 - 13
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	119313-12-1	1 - 5
Carbon black	1333-86-4	1 - 5
Propoxylated glycerol triacrylate	52408-84-1	1 - 5
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	1 - 5
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	1 - 5
2-(2-Ethoxyethoxy)ethyl acrylate	7328-17-8	1 - 5
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	< 1.0
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	< 1.0
Octamethylcyclotetrasiloxane	556-67-2	< 0.5
4-Methoxyphenol	150-76-5	< 0.5

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.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
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. 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.

5.4. Hazchem code: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
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. 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.

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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

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. Store away from areas where product may come into contact with food or pharmaceuticals.

7.3. Certified handler
Not required

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
Carbon black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m3	A3: Confirmed animal carcinogen.
Carbon black	1333-86-4	New Zealand WES	TWA(8 hours): 3 mg/m3	Suspected human carcinogen.
4-Methoxyphenol	150-76-5	New Zealand WES	TWA(8 hours):5 mg/m3	Dermal sensitizer
4-Methoxyphenol	150-76-5	ACGIH	TWA:5 mg/m3	
1-Vinylhexahydro-2H-azepin-2-one	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
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m^3: milligrams per cubic metre
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.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

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
Select and use gloves according to AS/NZ 2161

Respiratory protection

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

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

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Liquid.
Colour	Black
Odour	Slight Acrylate
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	> 148.9 ºC
Flash point	> 93.3 ºC [*Test Method:*Pensky-Martens Closed Cup]
Evaporation rate	< 1 [*Ref Std:*BUOAC=1]
Flammability	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	< 160 Pa [@ 20 ºC]
Relative Vapour Density	*No data available.*
Density	± 1.3 g/ml
Relative density	± 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.*
Kinematic Viscosity	*No data available.*
Volatile organic compounds (VOC)	8 g/l
Percent volatile	1 - 5 % weight
VOC less H2O & exempt solvents	8 g/l

Particle Characteristics	*Not applicable.*

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 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
May cause additional health effects (see below).

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

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

Ingestion
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.

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

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >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
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Synthetic amorphous silica, fumed, crystalline free	Dermal	Rabbit	LD50 > 5,000 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
Propoxylated glycerol triacrylate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Propoxylated glycerol triacrylate	Ingestion	Rat	LD50 > 2,000 mg/kg
2-(2-Ethoxyethoxy)ethyl acrylate	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
2-(2-Ethoxyethoxy)ethyl acrylate	Ingestion	Rat	LD50 1,860 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
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
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Rat	LD50 > 5,000 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
4-Methoxyphenol	Dermal	Rat	LD50 > 2,000 mg/kg
4-Methoxyphenol	Ingestion	Rat	LD50 1,630 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
Carbon black	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline free	Rabbit	No significant irritation
Propoxylated glycerol triacrylate	Rabbit	Minimal irritation
2-(2-Ethoxyethoxy)ethyl acrylate	Rabbit	Irritant
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	Rabbit	No significant irritation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Rabbit	No significant irritation

Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Rabbit	Minimal irritation
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Rabbit	No significant irritation
Octamethylcyclotetrasiloxane	Rabbit	No significant irritation
4-Methoxyphenol	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
2-Phenoxyethyl acrylate	Rabbit	No significant irritation
1-Vinylhexahydro-2H-azepin-2-one	Rabbit	Severe irritant
Carbon black	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline free	Rabbit	No significant irritation
Propoxylated glycerol triacrylate	Rabbit	Severe irritant
2-(2-Ethoxyethoxy)ethyl acrylate	Rabbit	Severe irritant
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	Rabbit	No significant irritation
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	Rabbit	No significant irritation
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Rabbit	Severe irritant
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Rabbit	No significant irritation
Octamethylcyclotetrasiloxane	Rabbit	No significant irritation
4-Methoxyphenol	Rabbit	Severe irritant

Sensitisation:

Skin Sensitisation

Name	Species	Value
2-Phenoxyethyl acrylate	Guinea pig	Sensitising
1-Vinylhexahydro-2H-azepin-2-one	Mouse	Sensitising
Synthetic amorphous silica, fumed, crystalline free	Human and animal	Not classified
Propoxylated glycerol triacrylate	Mouse	Sensitising
2-(2-Ethoxyethoxy)ethyl acrylate	Guinea pig	Sensitising
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	Guinea pig	Not classified
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Guinea pig	Sensitising
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Mouse	Sensitising
Octamethylcyclotetrasiloxane	Human and animal	Not classified
4-Methoxyphenol	Guinea pig	Sensitising

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
1-Vinylhexahydro-2H-azepin-2-one	In Vitro	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Synthetic amorphous silica, fumed, crystalline free	In Vitro	Not mutagenic
Propoxylated glycerol triacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	In Vitro	Not mutagenic
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	In vivo	Not mutagenic
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
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	In Vitro	Not mutagenic
Octamethylcyclotetrasiloxane	In vivo	Not mutagenic
Octamethylcyclotetrasiloxane	In Vitro	Some positive data exist, but the data are not sufficient for classification
4-Methoxyphenol	In vivo	Not mutagenic
4-Methoxyphenol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
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
4-Methoxyphenol	Dermal	Multiple animal species	Not carcinogenic
4-Methoxyphenol	Ingestion	Multiple animal species	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
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
Propoxylated glycerol triacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	premating into lactation
Propoxylated glycerol triacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	29 days
Propoxylated glycerol triacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
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
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	29 days

				mg/kg/day	
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Toxic to development	Rat	NOAEL 150 mg/kg/day	during gestation
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Toxic to female reproduction	Rat	NOAEL 200 mg/kg/day	premating into lactation
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Toxic to male reproduction	Rat	NOAEL 60 mg/kg/day	85 days
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
4-Methoxyphenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
4-Methoxyphenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	Not classified for development	Rat	NOAEL 200 mg/kg/day	during gestation

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	
Propoxylated glycerol triacrylate	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	
4-Methoxyphenol	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
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Synthetic amorphous silica, fumed, crystalline free	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Propoxylated glycerol triacrylate	Dermal	heart	Not classified	Rabbit	NOAEL 500 mg/kg/day	2 weeks
Propoxylated glycerol triacrylate	Dermal	skin	Not classified	Rabbit	LOAEL 500 mg/kg/day	2 weeks
Propoxylated glycerol triacrylate	Dermal	liver | nervous system | kidney and/or bladder | respiratory system	Not classified	Rabbit	NOAEL 500 mg/kg/day	2 weeks

Propoxylated glycerol triacrylate	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 750 mg/kg/day	29 days
Propoxylated glycerol triacrylate	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 150 mg/kg/day	90 days
Propoxylated glycerol triacrylate	Ingestion	immune system	Not classified	Rat	NOAEL 750 mg/kg/day	29 days
Propoxylated glycerol triacrylate	Ingestion	endocrine system | hematopoietic system | nervous system | eyes	Not classified	Rat	NOAEL 375 mg/kg/day	90 days
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
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
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	skin | blood | liver | kidney and/or bladder | nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 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 mg/kg/day	2 weeks
4-Methoxyphenol	Ingestion	gastrointestinal tract	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	liver | immune system	Not classified	Rat	NOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 300 mg/kg/day	28 days
4-Methoxyphenol	Ingestion	heart | endocrine system | hematopoietic system | nervous system | respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	28 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
Ecotoxic to the aquatic environment.
Acute Aquatic Toxicity: Category 2
Chronic Aquatic Toxicity: Category 2

Ecotoxic to terrestrial invertebrates
Hazardous to terrestrial invertebrates

No product test data available.

Material	CAS Number	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
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-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)
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)-2-morpholinopropan-1-one	71868-10-5	Green algae	Experimental	72 hours	ErC50	1.6 mg/l
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
Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon black	1333-86-4	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Carbon black	1333-86-4	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	NOEC	>800 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
Propoxylated glycerol triacrylate	52408-84-1	Activated sludge	Experimental	3 hours	EC20	507 mg/l
Propoxylated glycerol triacrylate	52408-84-1	Green algae	Experimental	72 hours	ErC50	12.2 mg/l
Propoxylated glycerol triacrylate	52408-84-1	Water flea	Experimental	48 hours	EC50	91.4 mg/l
Propoxylated glycerol triacrylate	52408-84-1	Zebra Fish	Experimental	96 hours	LC50	5.74 mg/l
Propoxylated glycerol triacrylate	52408-84-1	Green algae	Experimental	72 hours	NOEC	0.921 mg/l
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	Green algae	Analogous Compound	72 hours	ErC50	>173.1 mg/l
Synthetic amorphous silica, fumed,	112945-52-5	Sediment organism	Analogous Compound	96 hours	EC50	8,500 mg/kg (Dry Weight)

crystalline free						
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
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Activated sludge	Experimental	3 hours	EC20	>1,000 mg/l
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Common Carp	Experimental	96 hours	LC50	1.4 mg/l
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Green algae	Experimental	72 hours	EC50	>2.01 mg/l
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Water flea	Experimental	48 hours	EC50	3.53 mg/l
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Green algae	Experimental	72 hours	EC10	1.56 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	28961-43-5	Water flea	Experimental	48 hours	EC50	70.7 mg/l

acrylic acid						
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
4-Methoxyphenol	150-76-5	Ciliated protozoa	Experimental	40 hours	IC50	171.4 mg/l
4-Methoxyphenol	150-76-5	Green algae	Experimental	72 hours	ErC50	54.7 mg/l
4-Methoxyphenol	150-76-5	Rainbow trout	Experimental	96 hours	LC50	28.5 mg/l
4-Methoxyphenol	150-76-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
4-Methoxyphenol	150-76-5	Green algae	Experimental	72 hours	NOEC	2.96 mg/l
4-Methoxyphenol	150-76-5	Water flea	Experimental	21 days	NOEC	0.68 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	CAS Number	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)	
Methacrylate polymer	Trade Secret	Data not availbl-	N/A	N/A	N/A	N/A

		insufficient				
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-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)	
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
Carbon black	1333-86-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
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
Propoxylated glycerol triacrylate	52408-84-1	Experimental Biodegradation	28 days	CO2 evolution	72-85 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Diphenyl(2,4,6	75980-60-8	Experimental	28 days	BOD	≤10 %BOD/Th	OECD 301F -

-trimethylbenzoyl)phosphine oxide		Biodegradation			OD	Manometric respirometry
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
4-Methoxyphenol	150-76-5	Experimental Biodegradation - Anaerobic	28 days	Percent degraded	>90 % degraded	
4-Methoxyphenol	150-76-5	Experimental Biodegradation	28 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
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	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-Phenoxyethyl acrylate	48145-04-6	Experimental Bioconcentration		Log Kow	2.58	
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-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	119313-12-1	Experimental Bioconcentration		Log Kow	2.91	OECD 107 log Kow shke flsk mtd
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	

Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-(2-Ethoxyethoxy) ethyl acrylate	7328-17-8	Experimental Bioconcentration		Log Kow	1.105	OECD 117 log Kow HPLC method
Propoxylated glycerol triacrylate	52408-84-1	Experimental Bioconcentration		Log Kow	2.52	OECD 107 log Kow shke flsk mtd
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Experimental BCF - Fish	56 days	Bioaccumulation factor	≤40	
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	Experimental Bioconcentration		Log Kow	2.89	OECD 107 log Kow shke flsk mtd
4-Methoxyphenol	150-76-5	Experimental Bioconcentration		Log Kow	1.58	
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
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

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.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable.
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

HSNO Approval number	HSR002679
Group standard name	Surface Coatings and Colourants (Carcinogenic) Group Standard 2020
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

Controls in accordance with The Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 2017

Certified handler	Not required
Location Compliance Certificate	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for all other substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for all other substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for Hazardous to the aquatic environment Category 1

substances); or 1 000 L or 1 000 kg (for Serious eye damage Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Acute toxicity Category 4 or Hazardous to the aquatic environment Category 4 substances)

SECTION 16: Other information

Revision information:
Complete document review.

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Key to abbreviations and acronyms
GHS refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017
HSNO means Hazardous Substances and New Organisms Act 1996

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