# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 20-7006-8 | **Version number:** | 2.05 |
| **Revision date:** | 04/10/2022 | **Supersedes date:** | 03/10/2022 |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier
3M™ Screen Printing UV Ink 9812 Magenta

**Product Identification Numbers**
75-3470-5600-6

7000056071

### 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 Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
**Telephone:** +353 1 280 3555
**E Mail:** tox.uk@mmm.com
**Website:** www.3M.com

### 1.4. Emergency telephone number
Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture
**CLP REGULATION (EC) No 1272/2008**

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 1A - Skin Sens. 1A; 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**
**CLP REGULATION (EC) No 1272/2008**

**SIGNAL WORD**
DANGER.

**Symbols**
GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

**Pictograms**

**Ingredients:**

| Ingredient | CAS Nbr | EC No. | % by Wt |
|---|---|---|---|
| 2-Phenoxyethyl acrylate | 48145-04-6 | 256-360-6 | 40 - 50 |
| 1-Vinylhexahydro-2H-azepin-2-one | 2235-00-9 | 218-787-6 | 10 - 20 |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | 404-360-3 | < 3 |
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | 4006006 | < 3 |
| 2-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | 230-811-7 | < 3 |
| Glycerol, propoxylated, esters with acrylic acid | 52408-84-1 | 500-114-5 | < 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: respiratory system. |
| H411 | Toxic to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| P280F | Wear respiratory protection. |

**Response:**

| | |
|---|---|
| P308 + P313 | IF exposed or concerned: Get medical advice/attention. |

**SUPPLEMENTAL INFORMATION:**

**Supplemental Precautionary Statements:**
Restricted to professional users.

9% of the mixture consists of components of unknown acute oral toxicity.
9% of the mixture consists of components of unknown acute dermal toxicity.

Contains 9% 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 Contains a substance that meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII

## 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] |
|---|---|---|---|
| 2-Phenoxyethyl acrylate | (CAS-No.) 48145-04-6<br>(EC-No.) 256-360-6 | 40 - 50 | Skin Sens. 1A, H317<br>Repr. 2, H361df<br>Aquatic Chronic 2, H411 |
| Methacrylate polymer | Trade Secret | 10 - 20 | Substance not classified as hazardous |
| 1-Vinylhexahydro-2H-azepin-2-one | (CAS-No.) 2235-00-9<br>(EC-No.) 218-787-6 | 10 - 20 | Acute Tox. 4, H312<br>Acute Tox. 4, H302<br>Eye Irrit. 2, H319<br>Skin Sens. 1B, H317<br>STOT RE 1, H372 |
| Aliphatic urethane acrylate | Trade Secret | 7 - 13 | Substance not classified as hazardous |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | (CAS-No.) 980-26-7<br>(EC-No.) 213-561-3 | 5 - 10 | Substance not classified as hazardous |
| octamethylcyclotetrasiloxane | (CAS-No.) 556-67-2<br>(EC-No.) 209-136-7 | < 0.5 | Repr. 2, H361f<br>Aquatic Chronic 1, H410,M=10<br>Flam. Liq. 3, H226 |
| ethylbenzene | (CAS-No.) 100-41-4<br>(EC-No.) 202-849-4 | < 0.5 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>Asp. Tox. 1, H304<br>STOT RE 2, H373<br>Aquatic Chronic 3, H412 |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | (CAS-No.) 119313-12-1<br>(EC-No.) 404-360-3 | < 3 | Repr. 1B, H360D<br>Aquatic Acute 1, H400,M=1<br>Aquatic Chronic 1, H410,M=1 |
| 2-(2-Ethoxyethoxy)ethyl acrylate | (CAS-No.) 7328-17-8<br>(EC-No.) 230-811-7 | < 3 | Acute Tox. 4, H312<br>Acute Tox. 4, H302<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317 |
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | (CAS-No.) 71868-10-5<br>(EC-No.) ELINCS | < 3 | Acute Tox. 4, H302<br>Repr. 1B, H360FD |

| | | | |
|---|---|---|---|
| | 4006006 | | Aquatic Chronic 2, H411 |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | (CAS-No.) 28961-43-5<br>(EC-No.) 500-066-5 | < 1 | Eye Irrit. 2, H319<br>Skin Sens. 1B, H317 |
| Glycerol, propoxylated, esters with acrylic acid | (CAS-No.) 52408-84-1<br>(EC-No.) 500-114-5 | < 1 | Eye Irrit. 2, H319<br>Skin Sens. 1A, H317<br>Aquatic Chronic 3, H412 |

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**
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. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**
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 | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| ethylbenzene | 100-41-4 | Ireland OELs | TWA(8 hours):100 ppm(442 mg/m3);STEL(15 minutes):200 ppm(884 mg/m3) | SKIN |
| 1-Vinylhexahydro-2H-azepin-2-one | 2235-00-9 | Manufacturer determined | TWA(8 hours):0.1 ppm(0.57 mg/m3) | |

Ireland OELs : Ireland. OELs

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.

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

**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.

*Applicable Norms/Standards*
Use eye protection conforming to EN 166

**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 (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

**Respiratory protection**

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

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

*Applicable Norms/Standards*
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** | Magenta |
| **Odor** | Acrylate |
| **Odour threshold** | *No data available.* |
| **Melting point/freezing point** | *Not applicable.* |
| **Boiling point/boiling range** | > 148.9 ºC |
| **Flammability (solid, gas)** | 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 Vapor Density** | *No data available.* |

**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 EU 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 internal hazard assessments.**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**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**
Mild Skin Irritation: Signs/symptoms may include localised 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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | Dermal | Rat | LD50 > 3,000 mg/kg |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 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 |
| 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 |
| octamethylcyclotetrasiloxane | Dermal | Rat | LD50 > 2,400 mg/kg |
| octamethylcyclotetrasiloxane | Inhalation-Dust/Mist (4 hours) | Rat | LC50 36 mg/l |
| octamethylcyclotetrasiloxane | Ingestion | Rat | LD50 > 5,000 mg/kg |
| ethylbenzene | Dermal | Rabbit | LD50 15,433 mg/kg |
| ethylbenzene | Inhalation-Vapour (4 hours) | Rat | LC50 17.4 mg/l |
| ethylbenzene | Ingestion | Rat | LD50 4,769 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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | Rabbit | No significant 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 |
| Glycerol, propoxylated, esters with acrylic acid | Rabbit | Minimal irritation |
| octamethylcyclotetrasiloxane | Rabbit | Minimal irritation |
| ethylbenzene | 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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | Rabbit | No significant irritation |
| 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 |
| Glycerol, propoxylated, esters with acrylic acid | Rabbit | Severe irritant |
| octamethylcyclotetrasiloxane | Rabbit | No significant irritation |
| ethylbenzene | Rabbit | Moderate irritant |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| 2-Phenoxyethyl acrylate | Guinea | Sensitising |

| | | |
|---|---|---|
| | pig | |
| 1-Vinylhexahydro-2H-azepin-2-one | Mouse | Sensitising |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | Not available | Not classified |
| 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 |
| Glycerol, propoxylated, esters with acrylic acid | Mouse | Sensitising |
| octamethylcyclotetrasiloxane | Human and animal | Not classified |
| ethylbenzene | Human | 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-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 |
| octamethylcyclotetrasiloxane | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| ethylbenzene | In vivo | Not mutagenic |
| ethylbenzene | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| ethylbenzene | Inhalation | Multiple animal species | Carcinogenic. |

**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-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 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 | Ingestion | Toxic to female reproduction | Rabbit | NOAEL 50 mg/kg/day | during organogenesis |
| octamethylcyclotetrasiloxane | Inhalation | Toxic to female reproduction | Rat | NOAEL 3.6 mg/l | 2 generation |
| ethylbenzene | Inhalation | Not classified for development | Rat | NOAEL 4.3 mg/l | premating & 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 | |
| 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 | |
| ethylbenzene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ethylbenzene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |
| ethylbenzene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | 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 |
| 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 |
| octamethylcyclotetrasiloxa | Dermal | hematopoietic | Not classified | Rabbit | NOAEL 960 | 3 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| ne | | system | | | mg/kg/day | |
| 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 |
| ethylbenzene | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.1 mg/l | 2 years |
| ethylbenzene | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 1.1 mg/l | 103 weeks |
| ethylbenzene | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 3.4 mg/l | 28 days |
| ethylbenzene | Inhalation | auditory system | Not classified | Rat | NOAEL 2.4 mg/l | 5 days |
| ethylbenzene | Inhalation | endocrine system | Not classified | Mouse | NOAEL 3.3 mg/l | 103 weeks |
| ethylbenzene | Inhalation | gastrointestinal tract | Not classified | Rat | NOAEL 3.3 mg/l | 2 years |
| ethylbenzene | Inhalation | bone, teeth, nails, and/or hair \| muscles | Not classified | Multiple animal species | NOAEL 4.2 mg/l | 90 days |
| ethylbenzene | Inhalation | heart \| immune system \| respiratory system | Not classified | Multiple animal species | NOAEL 3.3 mg/l | 2 years |
| ethylbenzene | Ingestion | liver \| kidney and/or bladder | Not classified | Rat | NOAEL 680 mg/kg/day | 6 months |

**Aspiration Hazard**

| Name | Value |
|---|---|
| ethylbenzene | Aspiration hazard |

**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 EU 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 | CAS # | 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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Activated sludge | Experimental | 3 hours | EC50 | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Zebra Fish | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Water flea | Experimental | 21 days | No tox obs at lmt of water sol | >100 mg/l |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Zebra Fish | Experimental | 28 days | No tox obs at lmt of water sol | >100 mg/l |
| ethylbenzene | 100-41-4 | Activated sludge | Experimental | 49 hours | EC50 | 130 mg/l |
| ethylbenzene | 100-41-4 | Atlantic Silverside | Experimental | 96 hours | LC50 | 5.1 mg/l |
| ethylbenzene | 100-41-4 | Green algae | Experimental | 96 hours | EC50 | 3.6 mg/l |
| ethylbenzene | 100-41-4 | Mysid Shrimp | Experimental | 96 hours | LC50 | 2.6 mg/l |
| ethylbenzene | 100-41-4 | Rainbow trout | Experimental | 96 hours | LC50 | 4.2 mg/l |
| ethylbenzene | 100-41-4 | Water flea | Experimental | 48 hours | EC50 | 1.8 mg/l |
| ethylbenzene | 100-41-4 | Water flea | Experimental | 7 days | NOEC | 0.96 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 |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | Activated sludge | Experimental | 30 minutes | IC50 | >5.9 mg/l |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | Green algae | Experimental | 72 hours | EbC50 | >0.5 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 | Green algae | Experimental | 72 hours | NOEC | 0.5 mg/l |
| 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 |
| 2-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | Activated sludge | Experimental | 3 hours | EC50 | 770 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 | EC50 | 3.2 mg/l |
| 2-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | Water flea | Experimental | 48 hours | EC50 | 10.56 mg/l |
| 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 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | 28961-43-5 | Activated sludge | Experimental | 3 hours | EC20 | 292 mg/l |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | 28961-43-5 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |

### 12.2. Persistence and degradability

| Material | CAS Nbr | 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-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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Experimental Biodegradation | 28 days | CO2 evolution | 3.2 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| ethylbenzene | 100-41-4 | Experimental Biodegradation | 28 days | CO2 evolution | 70-80 %CO2 evolution/THCO2 evolution | ISO 14593 Inorg C Headspace |
| ethylbenzene | 100-41-4 | Experimental Photolysis | | Photolytic half-life (in air) | 4.26 days (t 1/2) | |
| 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 |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | Experimental Biodegradation | 28 days | Dissolv. Organic Carbon Deplet | 3 %CO2 evolution/THCO2 evolution | similar to OECD 301B |
| 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-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | Experimental Biodegradation | 28 days | CO2 evolution | 98 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| 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 |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | 28961-43-5 | Experimental Biodegradation | 28 days | CO2 evolution | 58-61 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |

### 12.3 : Bioaccumulative potential

| Material | Cas No. | 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 | N/A | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | classification | | | | |
| 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 |
| 5,12-Dihydro-2,9-dimethylquino[2,3-b]acridine-7,14-dione | 980-26-7 | Experimental Bioconcentration | | Log Kow | 2.2 | |
| ethylbenzene | 100-41-4 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | 1 | |
| 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 |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | Experimental Bioconcentration | | Log Kow | 2.91 | EC A.8 Partition Coefficient |
| 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-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | Experimental Bioconcentration | | Log Kow | 1.105 | |
| Glycerol, propoxylated, esters with acrylic acid | 52408-84-1 | Experimental Bioconcentration | | Log Kow | 2.52 | OECD 107 log Kow shke flsk mtd |
| Propylidynetrimethanol, ethoxylated, esters with acrylic acid | 28961-43-5 | Experimental Bioconcentration | | Log Kow | 2.89 | OECD 107 log Kow shke flsk mtd |

### 12.4. Mobility in soil

| Material | Cas No. | 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™ |
| octamethylcyclotetrasiloxane | 556-67-2 | Experimental Mobility in Soil | Koc | 16,600 l/kg | OECD 106 Adsp-Desb Batch Equil |
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | Experimental Mobility in Soil | Koc | 49,000 l/kg | OECD 121 Estim. of Koc by HPLC |
| 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-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | Estimated Mobility in Soil | Koc | 10 l/kg | Episuite™ |
| Glycerol, propoxylated, esters with acrylic acid | 52408-84-1 | Experimental Mobility in Soil | Koc | 100 l/kg | OECD 121 Estim. of Koc by HPLC |

### 12.5. Results of the PBT and vPvB assessment

| Ingredient | CAS Nbr | PBT/vPvB status |
|---|---|---|
| octamethylcyclotetrasiloxane | 556-67-2 | Meets REACH PBT criteria |
| octamethylcyclotetrasiloxane | 556-67-2 | Meets REACH PBT criteria |

### 12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

### 12.7. Other adverse effects

No information available.

## 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. | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(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**

**Carcinogenicity**

| Ingredient | CAS Nbr | Classification | Regulation |
|---|---|---|---|
| ethylbenzene | 100-41-4 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

**Restrictions on the manufacture, placing on the market and use:**
The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

| Ingredient | CAS Nbr |
|---|---|
| octamethylcyclotetrasiloxane | 556-67-2 |

Restriction status: listed in REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

**Authorization status under REACH:**
The following substance/s contained in this product might be or is/are subject to authorization in accordance with REACH:

| Ingredient | CAS Nbr |
|---|---|
| 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 |

Authorization status: listed in the Candidate List of Substances of Very High Concern for Authorization

**Global inventory status**
Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

**DIRECTIVE 2012/18/EU**
Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2

| Dangerous Substances | Identifier(s) | Qualifying quantity (tonnes) for the application of |
|---|---|---|

| | | Lower-tier requirements | Upper-tier requirements |
|---|---|---|---|
| 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | 100 | 200 |
| 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | 200 | 500 |
| 2-(2-Ethoxyethoxy)ethyl acrylate | 7328-17-8 | 200 | 500 |
| ethylbenzene | 100-41-4 | 10 | 50 |
| octamethylcyclotetrasiloxane | 556-67-2 | 100 | 200 |

**Regulation (EU) No 649/2012**
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.

## SECTION 16: Other information

**List of relevant H statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| 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: 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 12: Component ecotoxicity information information was modified.

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