



## Safety Data Sheet

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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 Piezo Ink Jet Ink 8805-UV, Black

#### Product Identification Numbers

75-0302-4891-0

7100050700

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

##### Identified uses

Professional

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318  
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Reproductive Toxicity, Category 1B - Repr. 1B; H360  
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335  
Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400  
Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

For full text of H phrases, see Section 16.

## 2.2. Label elements

### CLP REGULATION (EC) No 1272/2008

#### SIGNAL WORD

DANGER.

#### Symbols:

GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS08 (Health Hazard) | GHS09 (Environment) |

#### Pictograms



#### Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	227-561-6	10 - 30
Isooctyl acrylate	29590-42-9	249-707-8	10 - 30
Tetrahydrofurfuryl acrylate	2399-48-6	219-268-7	15 - 25
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	67906-98-3		7 - 13
Hexamethylene diacrylate	13048-33-4	235-921-9	5 - 10
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	278-355-8	3 - 5

#### HAZARD STATEMENTS:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H410	Very toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P260A	Do not breathe vapours.
P280B	Wear protective gloves and eye/face protection.

##### Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

##### Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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**SUPPLEMENTAL INFORMATION:****Supplemental Hazard Statements:**

EUH071 Corrosive to the respiratory tract.

**Supplemental Precautionary Statements:**

Restricted to professional users.

24% of the mixture consists of components of unknown acute oral toxicity.

Contains 28% of components with unknown hazards to the aquatic environment.

**Notes on labelling**

All or part of the classification is based on toxicity test data.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients**

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	72162-39-1			10 - 30	Skin Irrit. 2, H315; Eye Irrit. 2, H319
Isooctyl acrylate	29590-42-9	249-707-8	01-2119486988-09	10 - 30	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1 Skin Sens. 1B, H317
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	227-561-6	01-2119957862-25	10 - 30	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1 Skin Sens. 1, H317
Tetrahydrofurfuryl acrylate	2399-48-6	219-268-7	01-2120738396-46	15 - 25	Aquatic Chronic 2, H411 EUH071; Acute Tox. 4, H302; Skin Corr. 1C, H314; Skin Sens. 1B, H317; Repr. 1B, H360Df
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	67906-98-3			7 - 13	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317
Hexamethylene diacrylate	13048-33-4	235-921-9	01-2119484737-22	5 - 10	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 - Nota D Aquatic Chronic 3, H412
Polymer	Trade Secret			1 - 5	Substance not classified as hazardous
Benzophenone	119-61-9	204-337-6		3 - 5	Aquatic Chronic 3, H412

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					Acute Tox. 4, H302; STOT RE 2, H373
Carbon black	1333-86-4	215-609-9		1 - 5	Substance with a Community level exposure limit in the workplace
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	278-355-8	01-2119972295-29	3 - 5	Aquatic Chronic 2, H411 Skin Sens. 1B, H317; Repr. 1B, H360F
Camphene	79-92-5	201-234-8		< 0.2	Eye Irrit. 2, H319; Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1
Acrylic acid	79-10-7	201-177-9		< 0.2	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1A, H314; STOT SE 3, H335; Aquatic Acute 1, H400,M=1 - Nota D Aquatic Chronic 2, H411
Toluene	108-88-3	203-625-9		< 0.2	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3, H336; STOT RE 2, H373 Aquatic Chronic 3, H412 Eye Irrit. 2, H319

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If swallowed**

Rinse mouth. Do not induce vomiting. Get immediate medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

See Section 11.1 Information on toxicological effects

**4.3. Indication of any immediate medical attention and special treatment required**

Not applicable.

## SECTION 5: Fire-fighting measures

### 5.1. 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

<u>Substance</u>	<u>Condition</u>
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

For industrial/occupational use only. Not for consumer sale or use. 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

Store in a well-ventilated place. Keep container tightly closed. 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
Toluene	108-88-3	UK HSC	TWA: 191 mg/m <sup>3</sup> (50 ppm); STEL: 384 mg/m <sup>3</sup> (100 ppm)	SKIN
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m <sup>3</sup> ; STEL: 7 mg/m <sup>3</sup>	
Tetrahydrofurfuryl acrylate	2399-48-6	Manufacturer determined	TWA:0.1 ppm(0.64 mg/m <sup>3</sup> );STEL:0.3 ppm(1.91 mg/m <sup>3</sup> )	Dermal Sensitizer
Acrylic acid	79-10-7	UK HSC	TWA:29 mg/m <sup>3</sup> (10 ppm);STEL:59 mg/m <sup>3</sup> (20 ppm)	

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

**Biological limit values**

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

**Derived no effect level (DNEL)**

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
Isooctyl acrylate		Consumer	Dermal, Long-term exposure (24 hours), Systemic effects	0.1 mg/kg bw/d
Isooctyl acrylate		Consumer	Inhalation, Long-term exposure (24 hours), Systemic effects	5 mg/m <sup>3</sup>
Isooctyl acrylate		Consumer	Oral, Long-term exposure (24 hours), Systemic effects	3 mg/kg bw/d
Isooctyl acrylate		Worker	Dermal, Long-term exposure (8 hours), Local effects	0.0625 mg/cm <sup>2</sup>
Isooctyl acrylate		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	0.2 mg/kg bw/d
Isooctyl acrylate		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	21 mg/m <sup>3</sup>

**Predicted no effect concentrations (PNEC)**

Ingredient	Degradation Product	Compartment	PNEC
Isooctyl acrylate		Agricultural soil	0.0117 mg/kg d.w.

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Isooctyl acrylate		Air average	3 mg/m <sup>3</sup>
Isooctyl acrylate		Freshwater	0.00065 mg/l
Isooctyl acrylate		Freshwater sediments	0.101 mg/kg d.w.
Isooctyl acrylate		Grassland average	0.0117 mg/kg d.w.
Isooctyl acrylate		Intermittent releases to water	0.006 mg/l
Isooctyl acrylate		Marine water	.00007 mg/l
Isooctyl acrylate		Marine water sediments	0.002 mg/kg d.w.
Isooctyl acrylate		Sewage Treatment Plant	10 mg/l

**Recommended monitoring procedures:** Information on recommended monitoring procedures can be obtained from UK HSC

## 8.2. Exposure controls

In addition, refer to the annex for more information.

### 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:

Full face shield.

Indirect vented goggles.

#### *Applicable Norms/Standards*

Use eye/face 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:

<b>Material</b>	<b>Thickness (mm)</b>	<b>Breakthrough Time</b>
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:

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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

### **Thermal hazards**

Wear heat insulating gloves when handling hot material to prevent thermal burns.

### *Applicable Norms/Standards*

Use gloves tested to EN 407

### **8.2.3. Environmental exposure controls**

Refer to Annex

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state

Liquid.

Colour

Black

Specific Physical Form:

Liquid.

Odor

Acrylate

Odour threshold

*No data available.*

pH

*Not applicable.*

Boiling point/boiling range

> 93.3 °C

Melting point

*Not applicable.*

Flammability (solid, gas)

Not applicable.

Explosive properties

Not classified

Oxidising properties

Not classified

Flash point

> 93.3 °C [Test Method: Closed Cup]

Autoignition temperature

*No data available.*

Flammable Limits(LEL)

*No data available.*

Flammable Limits(UEL)

*No data available.*

Vapour pressure

< 1,333.2 Pa [@ 20 °C]

Relative density

1.04 [Ref Std: WATER=1]

Water solubility

Negligible

Solubility- non-water

*No data available.*

Partition coefficient: n-octanol/water

*No data available.*

Evaporation rate

*No data available.*

Vapour density

> 1 [Ref Std: AIR=1]

Decomposition temperature

*No data available.*

Viscosity

*No data available.*

Density

1.04 g/ml

### 9.2. Other information

EU Volatile Organic Compounds

*No data available.*

Percent volatile

*No data available.*

## 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 depletion of inhibitor or exposure to heat)

## 10.4 Conditions to avoid

Light.

## 10.5 Incompatible materials

Strong oxidising agents.

## 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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 3M assessments.

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

#### Skin contact

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain.  
Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

#### Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

#### Ingestion

May be harmful if swallowed.

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause additional health effects (see below).

#### Additional Health Effects:

**Prolonged or repeated exposure may cause target organ effects:**

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Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination. Dermal effects: Signs/symptoms may include redness, itching, acne, or bumps on the skin.

**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
Tetrahydrofurfuryl acrylate	Ingestion	Rat	LD50 882 mg/kg
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Ingestion	Rat	LD50 4,350 mg/kg
Isooctyl acrylate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Isooctyl acrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Hexamethylene diacrylate	Dermal	Rabbit	LD50 3,636 mg/kg
Hexamethylene diacrylate	Ingestion	Rat	LD50 > 5,000 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
Benzophenone	Dermal	Rabbit	LD50 3,535 mg/kg
Benzophenone	Ingestion	Rat	LD50 1,900 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
Acrylic acid	Dermal	Rabbit	LD50 > 2,000 mg/kg
Acrylic acid	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3.8 mg/l
Acrylic acid	Ingestion	Rat	LD50 1,250 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Overall product	Professional judgement	Irritant
Tetrahydrofurfuryl acrylate	Rabbit	Corrosive
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Rabbit	Minimal irritation
Isooctyl acrylate	In vitro data	No significant irritation
2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	similar compounds	Irritant
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	similar compound	Irritant

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	ds	
Hexamethylene diacrylate	Rabbit	Irritant
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Rabbit	No significant irritation
Benzophenone	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
Toluene	Rabbit	Irritant
Acrylic acid	Rabbit	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
Tetrahydrofurfuryl acrylate	Rabbit	Corrosive
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Rabbit	Mild irritant
Isooctyl acrylate	similar health hazards	Mild irritant
2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	similar compounds	Severe irritant
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	similar compounds	Severe irritant
Hexamethylene diacrylate	Rabbit	Moderate irritant
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Rabbit	No significant irritation
Benzophenone	Rabbit	Mild irritant
Carbon black	Rabbit	No significant irritation
Toluene	Rabbit	Moderate irritant
Camphene	Rabbit	Moderate irritant
Acrylic acid	Rabbit	Corrosive

**Skin Sensitisation**

Name	Species	Value
Tetrahydrofurfuryl acrylate	Professional judgement	Sensitising
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Mouse	Sensitising
Isooctyl acrylate	Mouse	Sensitising
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	similar compounds	Sensitising
Hexamethylene diacrylate	Guinea pig	Sensitising
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Mouse	Sensitising
Benzophenone	Guinea pig	Not classified
Toluene	Guinea pig	Not classified
Acrylic acid	Guinea pig	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
Tetrahydrofurfuryl acrylate	In Vitro	Not mutagenic
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Isooctyl acrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Hexamethylene diacrylate	In Vitro	Some positive data exist, but the data are not

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		sufficient for classification
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	In Vitro	Not mutagenic
Benzophenone	In Vitro	Not mutagenic
Benzophenone	In vivo	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Acrylic acid	In vivo	Not mutagenic
Acrylic acid	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Isooctyl acrylate	Dermal	Mouse	Not carcinogenic
Hexamethylene diacrylate	Dermal	Mouse	Not carcinogenic
Benzophenone	Dermal	Multiple animal species	Not carcinogenic
Benzophenone	Ingestion	Multiple animal species	Carcinogenic.
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Acrylic acid	Ingestion	Rat	Not carcinogenic
Acrylic acid	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

**Reproductive Toxicity**
**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Tetrahydrofurfuryl acrylate	Ingestion	Toxic to female reproduction	Rat	NOAEL 50 mg/kg/day	prematuring into lactation
Tetrahydrofurfuryl acrylate	Dermal	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	90 days
Tetrahydrofurfuryl acrylate	Ingestion	Toxic to male reproduction	Rat	NOAEL 35 mg/kg/day	90 days
Tetrahydrofurfuryl acrylate	Inhalation	Toxic to male reproduction	Rat	NOAEL 0.6 mg/l	90 days
Tetrahydrofurfuryl acrylate	Ingestion	Toxic to development	Rat	NOAEL 50 mg/kg/day	prematuring into lactation
Isooctyl acrylate	Dermal	Not classified for female reproduction	Rat	NOAEL 57 mg/kg/day	prematuring & during gestation
Isooctyl acrylate	Dermal	Not classified for male reproduction	Rat	NOAEL 57 mg/kg/day	prematuring & during gestation
Isooctyl acrylate	Dermal	Not classified for development	Rat	NOAEL 57 mg/kg/day	prematuring & during gestation
Isooctyl acrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Hexamethylene diacrylate	Not specified.	Not classified for development	Rat	NOAEL 750 mg/kg/day	during organogenesis

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Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Not classified for 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	prematuring into lactation
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Ingestion	Toxic to male reproduction	Rat	NOAEL 60 mg/kg/day	85 days
Benzophenone	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	2 generation
Benzophenone	Ingestion	Not classified for male reproduction	Rat	NOAEL 80 mg/kg/day	2 generation
Benzophenone	Ingestion	Not classified for development	Rabbit	NOAEL 25 mg/kg/day	during gestation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
Acrylic acid	Ingestion	Not classified for female reproduction	Rat	NOAEL 460 mg/kg/day	2 generation
Acrylic acid	Ingestion	Not classified for male reproduction	Rat	NOAEL 460 mg/kg/day	2 generation
Acrylic acid	Inhalation	Not classified for development	Rat	NOAEL 1.1 mg/l	during organogenesis
Acrylic acid	Ingestion	Not classified for development	Rat	NOAEL 53 mg/kg/day	2 generation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Tetrahydrofurfuryl acrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	official classification	NOAEL Not available	
Isooctyl acrylate	Inhalation	respiratory irritation	Not classified	Human	NOAEL Not available	occupational exposure
Isooctyl acrylate	Ingestion	central nervous system depression	Not classified	Rat	NOAEL 5,000 mg/kg	
2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Hexamethylene diacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

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Acrylic acid	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
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**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Isooctyl acrylate	Dermal	heart   endocrine system   hematopoietic system   liver   immune system   nervous system   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 57 mg/kg/day	prematuring & during gestation
Isooctyl acrylate	Ingestion	endocrine system   liver   kidney and/or bladder   heart   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   eyes   respiratory system   vascular system	Not classified	Rat	NOAEL 600 mg/kg/day	90 days
Hexamethylene diacrylate	Dermal	skin	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 70 mg/kg/day	80 weeks
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
Benzophenone	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 75 mg/kg/day	14 weeks
Benzophenone	Ingestion	heart   hematopoietic system   liver   immune system   endocrine system   bone, teeth, nails, and/or hair   nervous system   eyes   respiratory system	Not classified	Rat	NOAEL 850 mg/kg/day	14 weeks
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	auditory system   eyes   olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart   liver   kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system   vascular	Not classified	Human	NOAEL Not available	occupational exposure

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		system				
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver   kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

**Aspiration Hazard**

Name	Value
Toluene	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.

**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-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	72162-39-1		Data not available or insufficient for classification			
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Green algae	Experimental	72 hours	EC50	1.98 mg/l
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Zebra Fish	Experimental	96 hours	LC50	0.704 mg/l
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Green Algae	Experimental	72 hours	NOEC	0.405 mg/l
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Water flea	Experimental	21 days	NOEC	0.092 mg/l
Isooctyl acrylate	29590-42-9	Green algae	Estimated	72 hours	EC50	0.535 mg/l

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Isooctyl acrylate	29590-42-9	Fathead minnow	Experimental	96 hours	LC50	0.67 mg/l
Isooctyl acrylate	29590-42-9	Water flea	Experimental	48 hours	EC50	0.4 mg/l
Isooctyl acrylate	29590-42-9	Water flea	Experimental	21 days	NOEC	0.065 mg/l
Tetrahydrofurfuryl acrylate	2399-48-6	Green algae	Experimental	72 hours	EC50	3.92 mg/l
Tetrahydrofurfuryl acrylate	2399-48-6	Water flea	Experimental	48 hours	EC50	37.7 mg/l
Tetrahydrofurfuryl acrylate	2399-48-6	Zebra Fish	Experimental	96 hours	LC50	7.32 mg/l
Tetrahydrofurfuryl acrylate	2399-48-6	Green algae	Experimental	72 hours	Effect Concentration 10%	2.48 mg/l
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	67906-98-3		Data not available or insufficient for classification			
Hexamethylene diacrylate	13048-33-4	Golden Orfe	Experimental	96 hours	LC50	4.6 mg/l
Hexamethylene diacrylate	13048-33-4	Green algae	Experimental	72 hours	EC50	1.5 mg/l
Hexamethylene diacrylate	13048-33-4	Water flea	Experimental	48 hours	EC50	2.6 mg/l
Hexamethylene diacrylate	13048-33-4	Green algae	Experimental	72 hours	Effect Concentration 10%	0.585 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	Zebra Fish	Experimental	96 hours	LC50	mg/l
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Green algae	Experimental	72 hours	Effect Concentration 10%	1.56 mg/l
Benzophenone	119-61-9	Fathead minnow	Experimental	96 hours	LC50	10.89 mg/l
Benzophenone	119-61-9	Green Algae	Experimental	72 hours	EC50	3.5 mg/l
Benzophenone	119-61-9	Water flea	Experimental	48 hours	EC50	6.8 mg/l
Benzophenone	119-61-9	Fathead minnow	Experimental	7 days	NOEC	2.1 mg/l
Benzophenone	119-61-9	Green Algae	Experimental	72 hours	NOEC	1 mg/l
Benzophenone	119-61-9	Water flea	Experimental	21 days	NOEC	0.2 mg/l
Carbon black	1333-86-4		Data not available or insufficient for classification			
Acrylic acid	79-10-7	Green algae	Experimental	72 hours	EC50	0.13 mg/l
Acrylic acid	79-10-7	Rainbow trout	Experimental	96 hours	LC50	27 mg/l
Acrylic acid	79-10-7	Water flea	Experimental	48 hours	EC50	47 mg/l
Acrylic acid	79-10-7	Green algae	Experimental	72 hours	Effect Concentration 10%	0.03 mg/l
Acrylic acid	79-10-7	Water flea	Experimental	21 days	NOEC	3.8 mg/l
Camphene	79-92-5	Green Algae	Experimental	72 hours	EC50	1.75 mg/l
Camphene	79-92-5	Sheepshead Minnow	Experimental	96 hours	LC50	1.9 mg/l
Camphene	79-92-5	Water flea	Experimental	48 hours	EC50	0.72 mg/l



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Camphene	79-92-5	Zebra Fish	Experimental	96 hours	LC50	0.72 mg/l
Camphene	79-92-5	Green Algae	Experimental	72 hours	NOEC	0.07 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Fish other	Experimental	96 hours	LC50	6.41 mg/l
Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho salmon	Experimental	40 days	NOEC	3.2 mg/l
Toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic acid, 2-hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]	72162-39-1	Data not available - insufficient			N/A	
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Experimental Biodegradation	28 days	CO2 evolution	57 % weight	OECD 310 CO2 Headspace
Isooctyl acrylate	29590-42-9	Estimated Photolysis		Photolytic half-life (in air)	1.45-1.78 days (t 1/2)	Other methods
Isooctyl acrylate	29590-42-9	Experimental Biodegradation	28 days	BOD	93 % weight	OECD 301D - Closed bottle test
Tetrahydrofurfuryl acrylate	2399-48-6	Experimental Bioconcentration		Log Kow	0.81	Other methods
Tetrahydrofurfuryl acrylate	2399-48-6	Experimental Biodegradation	28 days	BOD	77.7 % BOD/ThBOD	OECD 301F - Manometric respirometry
2-Propenoic acid, 1,6-hexanediyyl ester, polymer with 2-aminoethanol	67906-98-3	Data not available - insufficient			N/A	
Hexamethylene diacrylate	13048-33-4	Experimental Biodegradation	28 days	CO2 evolution	60-70 % weight	OECD 310 CO2 Headspace
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Experimental Biodegradation	28 days	BOD	≤10 % BOD/ThBOD	OECD 301F - Manometric respirometry
Benzophenone	119-61-9	Experimental Biodegradation	28 days	BOD	66-84 % weight	OECD 301F - Manometric respirometry
Carbon black	1333-86-4	Data not available - insufficient			N/A	
Acrylic acid	79-10-7	Experimental Biodegradation	28 days	BOD	81 % weight	OECD 301D - Closed bottle test
Camphene	79-92-5	Experimental Photolysis		Photolytic half-life (in air)	7.2 hours (t 1/2)	Other methods
Camphene	79-92-5	Experimental Biodegradation	28 days	BOD	2 % BOD/ThBOD	OECD 301C - MITI test (I)
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	Other methods
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % weight	

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic acid, 2-	72162-39-1	Data not available	N/A	N/A	N/A	N/A

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hydroxyethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol]		or insufficient for classification				
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Estimated BCF - Other	56 hours	Bioaccumulation factor	37	OECD 305E - Bioaccumulation flow-through fish test
Isooctyl acrylate	29590-42-9	Estimated Bioconcentration		Bioaccumulation factor	120-940	Other methods
2-Propenoic acid, 1,6-hexanediyl ester, polymer with 2-aminoethanol	67906-98-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hexamethylene diacrylate	13048-33-4	Experimental Bioconcentration		Log Kow	2.81	Other methods
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Experimental BCF - Carp	56 days	Bioaccumulation factor	≤40	Other methods
Benzophenone	119-61-9	Experimental BCF - Other	56 days	Bioaccumulation factor	<12	Other methods
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylic acid	79-10-7	Experimental Bioconcentration		Log Kow	0.46	Other methods
Camphene	79-92-5	Experimental BCF - Carp	56 days	Bioaccumulation factor	606-1290	OECD 305C-Bioaccum degree fish
Toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	Other methods

**12.4. Mobility in soil**

Please contact manufacturer for more details

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

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. 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 completely cured (or polymerized) material in a permitted industrial waste facility. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. 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**

75-0302-4891-0

**ADR/RID:** UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION 375, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXEMPTION, (ZINC OXIDE), III, --.

**IMDG-CODE:** UN3082, NOT RESTRICTED AS PER IMDG CODE 2.10.2.7, MARINE POLLUTANT EXCEPTION, (ZINC OXIDE), III, IMDG-Code segregation code: NONE, EMS: --.

**ICAO/IATA:** UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION A197, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXEMPTION, (ZINC OXIDE), III.

**SECTION 15: Regulatory information**

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

**Carcinogenicity**

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Acrylic acid	79-10-7	Gr. 3: Not classifiable	International Agency for Research on Cancer
Benzophenone	119-61-9	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Toluene	108-88-3	Gr. 3: Not classifiable	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.

<u>Ingredient</u>	<u>CAS Nbr</u>
Toluene	108-88-3

Restriction status: listed in REACH Annex XVII

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

**15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

**SECTION 16: Other information**

**List of relevant H statements**

EUH071	Corrosive to the respiratory tract.
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.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H360F	May damage fertility.
H360FD	May damage fertility. May damage the unborn child.
H361d	Suspected of damaging the unborn child.
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:**

- Label: CLP Classification information was modified.
- Label: CLP Percent Unknown information was deleted.
- Label: CLP Precautionary - Prevention information was modified.
- Section 3: Composition/ Information of ingredients table information was modified.
- Section 7: Precautions safe handling information information was modified.
- Section 8: glove data value information was deleted.
- Section 8: glove data value information was modified.
- Section 8: Skin protection - protective clothing information information was modified.
- Section 09: Color information was added.
- Section 09: Odor information was added.
- Sections 3 and 9: Odour, colour, grade information information was deleted.
- Section 11: Reproductive Toxicity Table information was modified.
- Section 11: Target Organs - Repeated Table information was modified.
- Section 12: Component ecotoxicity information information was modified.
- Section 12: Persistence and Degradability information information was modified.
- Section 13: Standard Phrase Category Waste GHS information was modified.
- Section 15: Regulations - Inventories information was deleted.
- Section 15: Restrictions on manufacture ingredients information information was added.
- Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

**Annex**

<b>1. Title</b>	
<b>Substance identification</b>	Isooctyl acrylate; EC No. 249-707-8; CAS Nbr 29590-42-9;
<b>Exposure Scenario Name</b>	Commercial Printing with UV Inks
<b>Lifecycle Stage</b>	Widespread use by professional workers
<b>Contributing activities</b>	PROC 10 -Roller application or brushing ERC 08c -Widespread use leading to inclusion into/onto article (indoor)
<b>Processes, tasks and activities covered</b>	Cleaning surfaces by wiping, brushing. Printing operations.
<b>2. Operational conditions and risk management measures</b>	

<b>Operating Conditions</b>	<p><b>Physical state:</b>Suspension  <b>General operating conditions:</b>                  Discharge volume of sewage treatment plant: 2,000,000 liters per day;                  Duration of exposure per day at workplace [for one worker]: 8 hours/day;                  Emission days per year: 365 days/year;                  Flow rate of receiving surface water:: 18,000 cubic meters per day;                  Frequency of exposure at workplace [for one worker]: 220 days/year;                  Indoor use with Local Exhaust Ventilation;                  Local freshwater dilution factor: 10 ;                  Local marine water dilution factor: 100 ;                  Partially open and partially closed process;</p>
<b>Risk management measures</b>	<p>Under the operational conditions described above the following risk management measures apply:  <b>General risk management measures:</b>  <b>Human health:</b>                  Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.;                  Safety glasses with side shields.;  <b>Environmental:</b>                  None needed;                  ;                  The following task-specific risk management measures apply in addition to those listed above:  <b>Task: Draining Material;</b>  <b>Human Health;</b>                  Protective Clothing - Apron;    <b>Task: Running the Process;</b>  <b>Human Health;</b>                  Ventilated Process Enclosures;    <b>Task: Waste Handling;</b>  <b>Environmental;</b>                  Wet scrubber - for gas removal;                  Industrial Sewage Treatment Plant;</p>
<b>Waste management measures</b>	<p>Do not release to waterways or sewers;                  Incinerate in a permitted hazardous waste incinerator;</p>
<b>3. Prediction of exposure</b>	
<b>Prediction of exposure</b>	<p>Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.</p>

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M United Kingdom MSDSs are available at [www.3M.com/uk](http://www.3M.com/uk)