



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™ Precision Coatable UV Adhesive 7555

Product Identification Numbers

FS-9100-4248-0

7000006835

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

Identified uses

Screen Printing

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

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:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
 Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
 Skin Sensitization, Category 1 - Skin Sens. 1; H317
 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

WARNING.

Symbols

GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
isooctyl acrylate	29590-42-9	249-707-8	15 - 50
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	227-561-6	5 - 10
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	442-300-8	1 - 3
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	423-340-5	0.5 - 1.5

HAZARD STATEMENTS:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261A	Avoid breathing vapours.
P273	Avoid release to the environment.
P280E	Wear protective gloves.

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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

P391

Collect spillage.

45% of the mixture consists of components of unknown acute oral toxicity.

Contains 27% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

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

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]
isooctyl acrylate	(CAS-No.) 29590-42-9 (EC-No.) 249-707-8 (REACH-No.) 01-2119486988-09	15 - 50	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
Acrylate Polymer (NJTS Reg No 04499600-7378)	Trade Secret	15 - 50	Substance not classified as hazardous
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Trade Secret	5 - 30	Substance not classified as hazardous
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	(CAS-No.) 5888-33-5 (EC-No.) 227-561-6	5 - 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Sens. 1B, H317 Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1
Liquid Polymer (NJTS Reg No 04499600-7380)	Trade Secret	1 - 7	Substance not classified as hazardous
2-Hydroxy-2-methylpropiophenone	(CAS-No.) 7473-98-5 (EC-No.) 231-272-0 (REACH-No.) 01-2119472306-39	< 3	Aquatic Chronic 3, H412 Acute Tox. 4, H302
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	(EC-No.) 442-300-8 (REACH-No.) 01-0000018586-60	1 - 3	Skin Sens. 1A, H317
Silane, dichlorodimethyl-, reaction products with silica	(CAS-No.) 68611-44-9 (EC-No.) 271-893-4	< 3	Substance with a national occupational exposure limit
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	(CAS-No.) 162881-26-7 (EC-No.) ELINCS 423-340-5 (REACH-No.) 01-2119489401-38	0.5 - 1.5	Skin Sens. 1A, H317 Aquatic Chronic 4, H413

acrylic acid	(CAS-No.) 79-10-7 (EC-No.) 201-177-9 (REACH-No.) 01-2119452449-31	< 0.5	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	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (REACH-No.) 01-2119471310-51	< 0.3	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

Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
acrylic acid	(CAS-No.) 79-10-7 (EC-No.) 201-177-9 (REACH-No.) 01-2119452449-31	(C >= 1%) STOT SE 3, H335
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	(CAS-No.) 5888-33-5 (EC-No.) 227-561-6	(C >= 10%) STOT SE 3, H335
isooctyl acrylate	(CAS-No.) 29590-42-9 (EC-No.) 249-707-8 (REACH-No.) 01-2119486988-09	(C >= 10%) STOT SE 3, H335

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

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

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

The most important symptoms and effects based on the CLP classification include:

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

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 flammable liquids such as dry chemical or carbon dioxide 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.
Hydrogen Chloride	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. When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), 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. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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 using non-sparking tools. 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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 cool. Store away from acids. Store away from strong bases. 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 ³ (50 ppm); STEL: 384 mg/m ³ (100 ppm)	SKIN
Silicon dioxide	68611-44-9	UK HSC	TWA(as respirable dust):2.4 mg/m ³ ;TWA(as inhalable dust):6 mg/m ³	
acrylic acid	79-10-7	UK HSC	TWA:29 mg/m ³ (10 ppm);STEL:59 mg/m ³ (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 ³
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 ²
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 ³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
isooctyl acrylate		Agricultural soil	0.0117 mg/kg d.w.
isooctyl acrylate		Air average	3 mg/m ³
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. Curing enclosures must be exhausted to outdoors or to a suitable emission control device.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

None required.

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

8.2.3. Environmental exposure controls

Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Viscous.
Colour	Clear Colorless
Odor	Pleasant Acrylate
Odour threshold	<i>No data available.</i>
Melting point/freezing point	<i>Not applicable.</i>
Boiling point/boiling range	196.8 °C [@ 101,324.72 Pa]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	91 °C [@ 101,325 Pa] [<i>Test Method: Closed Cup</i>]
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
pH	<i>substance/mixture is non-soluble (in water)</i>
Kinematic Viscosity	9,444 mm ² /sec
Water solubility	12.4 mg/l [@ 23.1 °C]
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	133.3 Pa [@ 25 °C]
Density	0.9 g/ml
Relative density	0.9 [<i>Ref Std: WATER=1</i>]
Relative Vapor Density	<i>No data available.</i>

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Molecular weight	<i>No data available.</i>
Percent volatile	40 - 55 % [@ 20 °C]

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.

10.4 Conditions to avoid

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

High shear and high temperature conditions

Temperatures above the boiling point.

10.5 Incompatible materials

Reducing agents.

Strong acids.

Strong bases.

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 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

May cause additional health effects (see below).

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
isooctyl acrylate	Dermal	Rabbit	LD50 > 2,000 mg/kg
isooctyl acrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Dermal		LD50 estimated to be > 5,000 mg/kg
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Ingestion		LD50 estimated to be > 5,000 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
Liquid Polymer (NJTS Reg No 04499600-7380)	Dermal		LD50 estimated to be > 5,000 mg/kg
Liquid Polymer (NJTS Reg No 04499600-7380)	Ingestion		LD50 estimated to be > 5,000 mg/kg
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Ingestion	Rat	LD50 > 2,000 mg/kg
Silane, dichlorodimethyl-, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Hydroxy-2-methylpropiophenone	Dermal	Rat	LD50 6,929 mg/kg
2-Hydroxy-2-methylpropiophenone	Ingestion	Rat	LD50 1,694 mg/kg
Silane, dichlorodimethyl-, reaction products with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Dermal	Rat	LD50 > 2,000 mg/kg
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Ingestion	Rat	LD50 > 2,000 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
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

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
isooctyl acrylate	In vitro data	No significant irritation
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Professional judgement	No significant irritation
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Rabbit	Minimal irritation
Liquid Polymer (NJTS Reg No 04499600-7380)	Not available	No significant irritation

Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Rabbit	No significant irritation
2-Hydroxy-2-methylpropiophenone	Rabbit	No significant irritation
Silane, dichlorodimethyl-, reaction products with silica	Rabbit	No significant irritation
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Rabbit	No significant irritation
acrylic acid	Rabbit	Corrosive
toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
isooctyl acrylate	similar health hazards	Mild irritant
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Professional judgement	No significant irritation
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Rabbit	Mild irritant
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Rabbit	No significant irritation
2-Hydroxy-2-methylpropiophenone	Rabbit	Mild irritant
Silane, dichlorodimethyl-, reaction products with silica	Rabbit	No significant irritation
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Rabbit	No significant irritation
acrylic acid	Rabbit	Corrosive
toluene	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
isooctyl acrylate	Mouse	Sensitising
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Mouse	Sensitising
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Guinea pig	Sensitising
Silane, dichlorodimethyl-, reaction products with silica	Human and animal	Not classified
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Guinea pig	Sensitising
acrylic acid	Guinea pig	Not classified
toluene	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
isooctyl acrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	In Vitro	Not mutagenic
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	In Vitro	Not mutagenic
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	In vivo	Not mutagenic
Silane, dichlorodimethyl-, reaction products with silica	In Vitro	Not mutagenic
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	In Vitro	Not mutagenic
acrylic acid	In vivo	Not mutagenic
acrylic acid	In Vitro	Some positive data exist, but the data are not sufficient for classification
toluene	In Vitro	Not mutagenic

toluene	In vivo	Not mutagenic
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Carcinogenicity

Name	Route	Species	Value
isooctyl acrylate	Dermal	Mouse	Not carcinogenic
Silane, dichlorodimethyl-, reaction products with silica	Not specified.	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
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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
isooctyl acrylate	Dermal	Not classified for female reproduction	Rat	NOAEL 57 mg/kg/day	premating & during gestation
isooctyl acrylate	Dermal	Not classified for male reproduction	Rat	NOAEL 57 mg/kg/day	premating & during gestation
isooctyl acrylate	Dermal	Not classified for development	Rat	NOAEL 57 mg/kg/day	premating & during gestation
isooctyl acrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	31 days
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	premating into lactation
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	premating into lactation
Mixture of: 2-(2-(oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silane, dichlorodimethyl-, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
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
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	poisoning

				available	and/or abuse
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Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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	
acrylic acid	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

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	prematemg & 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
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	Ingestion	gastrointestinal tract immune system kidney and/or bladder heart endocrine system hematopoietic system liver nervous system respiratory system	Not classified	Rat	NOAEL 500 mg/kg/day	31 days
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Ingestion	kidney and/or bladder heart endocrine system hematopoietic system liver immune system nervous system eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)et	Ingestion	gastrointestinal tract bone, teeth, nails,	Not classified	Rat	NOAEL 1,000	28 days

hoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate		and/or hair respiratory system			mg/kg/day	
Silane, dichlorodimethyl-, reaction products with silica	Inhalation	respiratory system silicosis	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 system	Not classified	Human	NOAEL Not available	occupational exposure
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.

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
Acrylate Polymer (NJTS Reg No 04499600-7378)	Trade Secret		Data not available or insufficient for classification			N/A
isooctyl acrylate	29590-42-9	Green algae	Estimated	72 hours	EC50	0.535 mg/l
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
isooctyl acrylate	29590-42-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Trade Secret		Data not available or insufficient for classification			N/A
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
Liquid Polymer (NJTS Reg No 04499600-7380)	Trade Secret		Data not available or insufficient for classification			N/A
2-Hydroxy-2-methylpropiophenone	7473-98-5	Activated sludge	Experimental	180 minutes	EC50	>1,000 mg/l
2-Hydroxy-2-methylpropiophenone	7473-98-5	Green algae	Experimental	72 hours	ErC50	1.95 mg/l
2-Hydroxy-2-methylpropiophenone	7473-98-5	Water flea	Experimental	48 hours	EC50	>119 mg/l
2-Hydroxy-2-methylpropiophenone	7473-98-5	Green algae	Experimental	72 hours	NOEC	0.194 mg/l
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Green algae	Experimental	72 hours	EC50	110 mg/l
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Water flea	Experimental	48 hours	EC50	>100 mg/l

Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Green algae	Experimental	72 hours	NOEC	3 mg/l
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Redworm	Experimental	14 days	LC50	>1,000 mg/l
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9		Data not available or insufficient for classification			N/A
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Green algae	Experimental	72 hours	EC50	>100 mg/l
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Green algae	Experimental	72 hours	NOEC	>100 mg/l
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	95 mg/l
acrylic acid	79-10-7	Green algae	Experimental	72 hours	EC10	0.03 mg/l
acrylic acid	79-10-7	Water flea	Experimental	21 days	NOEC	3.8 mg/l
acrylic acid	79-10-7		Experimental	7 days	LD50	≥98 mg per kg of bodyweight
acrylic acid	79-10-7		Experimental	48 hours	NOEC	0.9 mg/l
acrylic acid	79-10-7	Activated sludge	Experimental	30 minutes	NOEC	100 mg/l
acrylic acid	79-10-7	Redworm	Experimental	14 days	LC50	>1,000 mg/kg (Dry Weight)
acrylic acid	79-10-7	Soil microbes	Experimental	28 days	NOEC	100 mg/kg (Dry Weight)
toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
toluene	108-88-3	Green algae	Experimental	72 hours	EC50	12.5 mg/l
toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 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	1.39 mg/l
toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
toluene	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acrylate Polymer (NJTS Reg No 04499600-7378)	Trade Secret	Data not available/insufficient	N/A	N/A	N/A	N/A
isooctyl acrylate	29590-42-9	Experimental Biodegradation	28 days	BOD	93 %BOD/ThB OD	OECD 301D - Closed bottle test
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Trade Secret	Estimated Biodegradation	28 days	BOD	0 %BOD/ThB OD	Non-standard method
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Experimental Biodegradation	28 days	CO2 evolution	57 %CO2 evolution/THC O2 evolution	OECD 310 CO2 Headspace
Liquid Polymer (NJTS Reg No 04499600-7380)	Trade Secret	Data not available/insufficient	N/A	N/A	N/A	N/A
2-Hydroxy-2-methylpropiophenone	7473-98-5	Experimental Biodegradation	28 days	CO2 evolution	90 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethyl oxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	<1 days (t 1/2)	EC C.7 Hydrolysis at pH
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethyl oxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Experimental Biodegradation	28 days	CO2 evolution	87 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	Data not available/insufficient	N/A	N/A	N/A	N/A
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Experimental Biodegradation	28 days	CO2 evolution	1 % weight	OECD 301B - Modified sturm or CO2
acrylic acid	79-10-7	Estimated Photolysis		Photolytic half-life (in air)	3.2 days (t 1/2)	
acrylic acid	79-10-7	Experimental Biodegradation	28 days	Percent degraded	81 %BOD/ThB OD	OECD 301D - Closed bottle test
acrylic acid	79-10-7	Experimental Biodegradation	3 days	Percent degraded	72.9 %CO2 evolution/THC O2 evolution	
toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 %BOD/ThB OD	APHA Std Meth Water/Wastewater

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Acrylate Polymer (NJTS Reg No 04499600-7378)	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
isooctyl acrylate	29590-42-9	Estimated Bioconcentration		Bioaccumulation factor	120-940	Catalogic™
isooctyl acrylate	29590-42-9	Experimental Bioconcentration		Log Kow	4.6	
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	Analogous Compound BCF - Fish	56 hours	Bioaccumulation factor	37	OECD305-Bioconcentration
Liquid Polymer (NJTS Reg No 04499600-7380)	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-Hydroxy-2-methylpropiophenone	7473-98-5	Experimental Bioconcentration		Log Kow	1.62	OECD 107 log Kow shke flsk mtd
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethyl hoxyl)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Experimental Bioconcentration		Log Kow	3.01	EC A.8 Partition Coefficient
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Experimental BCF - Carp	28 days	Bioaccumulation factor	<5	OECD 305E - Bioaccumulation flow-through fish test
acrylic acid	79-10-7	Experimental Bioconcentration		Log Kow	0.46	OECD 107 log Kow shke flsk mtd
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
isooctyl acrylate	29590-42-9	Experimental Mobility in Soil	Koc	1,500 l/kg	
2-Hydroxy-2-methylpropiophenone	7473-98-5	Modeled Mobility in Soil	Koc	40 l/kg	Episuite™
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethyl hoxyl)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	607-631-00-6	Experimental Mobility in Soil	Koc	7.19 l/kg	EC C.19 Estim. of Koc by HPLC
acrylic acid	79-10-7	Experimental Mobility in Soil	Koc	6-137 l/kg	40CFR796.2750 Sed/Soil Adsorp
toluene	108-88-3	Experimental Mobility in Soil	Koc	37-160 l/kg	

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. 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.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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)

08 04 09* Waste adhesives and sealants containing organic solvents or other 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.
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a 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

<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
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

Global inventory status

Contact 3M for more information.

DIRECTIVE 2012/18/EU

Seveso hazard categories, Annex 1, Part 1

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
E1 Hazardous to the Aquatic environment	100	200

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
acrylic acid	79-10-7	50	200

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	200	500
isooctyl acrylate	29590-42-9	100	200
toluene	108-88-3	10	50

Regulation (EU) No 649/2012

No chemicals listed

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**

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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:

Commercial Screen Printing with UV Curable Coatings: Section 16: Annex information was deleted.

EU Section 09: pH information information was added.

Industrial Mixing of UV Curable Coating: Section 16: Annex information was modified.

Professional Mixing of UV Curable Coatings: Section 16: Annex information was modified.

Professional Screen Printing with UV Curable Coatings: Section 16: Annex information was added.

Section 1: Product name information was modified.

CLP: Ingredient table information was modified.

Label: CLP Classification information was modified.

Label: CLP Percent Unknown information was modified.

Label: CLP Precautionary - Disposal information was deleted.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

Section 03: Composition table % Column heading information was added.

Section 3: Composition/ Information of ingredients table information was modified.

Section 03: SCL table information was added.

Section 03: Substance not applicable information was added.

Section 04: First Aid - Symptoms and Effects (CLP) information was added.
Section 04: Information on toxicological effects information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 8: DNEL table row information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 8: PNEC table row information was modified.
Section 09: Color information was added.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 09: Odor information was added.
Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Aspiration Hazard Table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Classification disclaimer information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Health Effects - Inhalation information information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Reproductive Hazards information information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Reproductive/developmental effects information information was added.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was added.
Section 11: Target Organs - Repeated Table information was deleted.
Section 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.

Section 14 Packing Group – Main Heading information was added.
 Section 14 Packing Group – Regulation Data information was added.
 Section 14 Proper Shipping Name information was added.
 Section 14 Regulations – Main Headings information was added.
 Section 14 Segregation – Regulation Data information was added.
 Section 14 Segregation Code – Main Heading information was added.
 Section 14 Special Precautions – Main Heading information was added.
 Section 14 Special Precautions – Regulation Data information was added.
 Section 14 Transport in bulk – Regulation Data information was added.
 Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was added.
 Section 14 UN Number Column data information was added.
 Section 14 UN Number information was added.
 Section 15: Carcinogenicity information information was modified.
 Section 15: Restrictions on manufacture ingredients information information was added.
 Section 15: Seveso Hazard Category Text information was added.
 Section 15: Seveso Substance Text information was added.
 Section 16: UK disclaimer information was deleted.
 Section 2: No PBT/vPvB information available warning information was added.

Annex

1. Title	
Substance identification	isooctyl acrylate; EC No. 249-707-8; CAS Nbr 29590-42-9;
Exposure Scenario Name	Industrial Mixing of UV Curable Coating
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 05 -Mixing or blending in batch processes ERC 05 -Use at industrial site leading to inclusion into/onto article
Processes, tasks and activities covered	Hand-mixing of preparations, e.g. plasters, resins, two-component adhesives.
2. Operational conditions and risk management measures	
Operating Conditions	Physical state: Liquid. General operating conditions: Air exchange rate:: 5 - 10 part per hour; Duration of exposure per day at workplace [for one worker]: 220 days/year; Duration of use: 1 - 4 hours task; Emission days per year: 300 days/year; Indoor use with Local Exhaust Ventilation; Open process; Used amount or applied quantity per task/application by worker: <= 5 kg per day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: None needed; Environmental: None needed;
Waste management measures	Incinerate in a permitted hazardous waste incinerator;
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title

Substance identification	isooctyl acrylate; EC No. 249-707-8; CAS Nbr 29590-42-9;
Exposure Scenario Name	Professional Mixing of UV Curable Coatings
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 05 -Mixing or blending in batch processes ERC 08c -Widespread use leading to inclusion into/onto article (indoor)
Processes, tasks and activities covered	Hand-mixing of preparations, e.g. plasters, resins, two-component adhesives.
2. Operational conditions and risk management measures	
Operating Conditions	Physical state: Suspension General operating conditions: Air exchange rate:: 5 - 10 times per hour; Duration of exposure per day at workplace [for one worker]: 4 hours/day; Emission days per year: 365 days/year; Frequency of exposure at workplace [for one worker]: 220 days/year; Indoor use with Local Exhaust Ventilation; Open process;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Safety glasses with side shields.; Environmental: None needed; ; The following task-specific risk management measures apply in addition to those listed above: Task: Mixing; Human Health; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Local Exhaust Ventilation - with captor hood;
Waste management measures	Do not release to waterways or sewers; Incinerate in a permitted hazardous waste incinerator;
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	isooctyl acrylate; EC No. 249-707-8; CAS Nbr 29590-42-9;
Exposure Scenario Name	Professional Screen Printing with UV Curable Coatings
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 10 -Roller application or brushing ERC 08c -Widespread use leading to inclusion into/onto article (indoor)
Processes, tasks and activities covered	Cleaning surfaces by wiping, brushing. Printing operations.
2. Operational conditions and risk management measures	
Operating Conditions	Physical state: Suspension General operating conditions: Air exchange rate:: 5 - 10 times per hour; Batch process; Discharge volume of sewage treatment plant: 18,000 cubic meters per day; Duration of exposure per day at workplace [for one worker]: 8 hours/day; Emission days per year: 365 days/year; Frequency of exposure at workplace [for one worker]: 220 days/year;

	Indoor use without Local Exhaust Ventilation; Open process; Task: Waste Handling: Flow rate of receiving surface water:: 18,000 cubic meters per day; Local freshwater dilution factor: 10 ; Local marine water dilution factor: 100 ;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Dilution Ventilation; Protective Clothing - Apron; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Safety glasses with side shields.; Environmental: None needed;
Waste management measures	Do not release to waterways or sewers; Incinerate in a permitted hazardous waste incinerator;
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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