

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

3MTM Screen Print UV Gloss Clear 9740i

Product Identification Numbers

75-0400-3343-5 75-0400-3386-4 75-3472-5444-5 75-3472-5445-2

1.2. Recommended use and restrictions on use

Intended Use

Ink

Specific Use

UV Clear Coat for Graphic Applications

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company

Division: Commercial Solutions Division

Address: 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

Telephone: (800) 364-3577 **Website:** www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 4. Acute Toxicity (dermal): Category 4. Serious Eye Damage/Irritation: Category 1. Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1A.

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3MTM Screen Print UV Gloss Clear 9740i

Reproductive Toxicity: Category 1B.

Carcinogenicity: Category 2.

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard statements

Harmful if swallowed. Harmful in contact with skin. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure: respiratory system | May cause damage to organs through prolonged or repeated exposure: gastrointestinal tract | immune system | skin |

Precautionary statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves, protective clothing, and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. Immediately call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Rinse mouth. IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

None known.

49% of the mixture consists of ingredients of unknown acute oral toxicity.

52% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Vinylcaprolactam	2235-00-9	45 - 55 Trade Secret *	2H-Azepin-2-one, 1-ethenylhexahydro-;
			Vinylcaprolactam
Urethane acrylate oligomer	72162-39-1	30 - 40 Trade Secret *	No Data Available
CURING AGENT	Trade Secret	20 - 25	Not Applicable
Amine modified acrylic	67906-98-3	7 - 13 Trade Secret *	No Data Available
oligomer			
1,6-HEXANEDIOL	13048-33-4	5 - 10 Trade Secret *	2-Propenoic acid, 1,6-hexanediyl ester
DIACRYLATE			
2-ETHYLHEXYL ACRYLATE	103-11-7	5 - 10 Trade Secret *	2-Propenoic acid, 2-ethylhexyl ester
2,4,6-	75980-60-8	1 - 5 Trade Secret *	2,4,6-Trimethylbenzoyl diphenyl
Trimethylbenzoyldiphenylphosp			phosphine oxide; Phosphine oxide,
hine oxide			diphenyl(2,4,6-trimethylbenzoyl)-
DIETHYLENE GLYCOL	7328-17-8	1 - 5 Trade Secret *	2-Propenoic acid, 2-(2-ethoxyethoxy)ethyl
ETHYL ETHER ACRYLATE			ester; Carbitol acrylate
TETRAHYDROFURFURYL	2399-48-6	1 - 5 Trade Secret *	2-Propenoic acid, (tetrahydro-2-
ACRYLATE			furanyl)methyl ester
N,N'-BIS(2,2,6,6-	193098-40-7	1 - 3 Trade Secret *	1,6-Hexanediamine, N,N'-bis(2,2,6,6-
TETRAMETHYL-4-			tetramethyl-4-piperidinyl)-, polymers with
PIPERIDINYL)-1,6-			morpholine-2,4,6-trichloro-1,3,5-triazine
HEXANEDIAMINE,			reaction products, methylated
POLYMERS			
W/MORPHOLINE-2,4,6-			
TRICHLORO-1,3,5-TRIAZINE			
RCTN PROD, METHYLATED			
POLY(DIMETHYLSILOXANE	63148-62-9	< 2	Siloxanes and Silicones, di-Me
)			
TRIAZINE DERIVATIVE	Trade Secret	< 2	Not Applicable
UV ABSORBERS	Trade Secret	< 2	Not Applicable
N,N'-BIS(2,6-	2162-74-5	0.1 - 1 Trade Secret *	Benzenamine, N,N'-methanetetraylbis[2,6-
DIISOPROPYLPHENYL)CAR			bis(1-methylethyl)-
BODIIMIDE			
Phenoxy ET Acrylate	48145-04-6	0.1 - 1 Trade Secret *	2-Propenoic acid, 2-phenoxyethyl ester
Siloxanes and Silicones, 3-[3-	125455-51-8	0.1 - 1 Trade Secret *	Siloxanes and Silicones, 3-[3-(acetyloxy)-
(acetyloxy)-2-			2-hydroxypropoxy]propyl Me, di-Me, 3-[2-
hydroxypropoxy]propyl Me, di-			hydroxy-3-[(1-oxo-2-
Me, 3-[2-hydroxy-3-[(1-oxo-2-			propenyl)oxy]propoxy]propyl Me
propenyl)oxy]propoxy]propyl			
Me			
Acrylic Acid	79-10-7	< 0.5	2-Propenoic acid
Toluene	108-88-3	0 - 0.1	No Data Available

Curing Agent is a non-hazardous Trade Secret material according to WHMIS criteria. Triazine Derivative is a non-hazardous Trade Secret material according to WHMIS criteria. UV Absorbers is a non-hazardous Trade Secret material according to WHMIS criteria.

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.

^{*}The actual concentration of this ingredient has been withheld as a trade secret.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eve 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. If you feel unwell, get medical attention.

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

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Condition Substance Formaldehyde **During Combustion** Carbon monoxide **During Combustion** Carbon dioxide **During Combustion**

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

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 dikes 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 detergent and water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable

local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Store away from heat. Store away from oxidizing agents.

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.

tor the component.				
Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	
1,6-HEXANEDIOL	13048-33-4	AIHA	TWA:1 mg/m3(0.11 ppm)	Dermal Sensitizer
DIACRYLATE				
Vinylcaprolactam	2235-00-9	Manufacturer	TWA(8 hours):0.1 ppm(0.57	
		determined	mg/m3)	
TETRAHYDROFURFURYL	2399-48-6	Manufacturer	TWA:0.1 ppm(0.64	Dermal Sensitizer
ACRYLATE		determined	mg/m3);STEL:0.3 ppm(1.91	
			mg/m3)	
Acrylic Acid	79-10-7	ACGIH	TWA:2 ppm	Danger of cutaneous
				absorption

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates, including oily mists

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid	
Colour	Colourless	
Odour	Acrylate	
Odour threshold	No Data Available	
рН	Not Applicable	
Melting point/Freezing point	Not Applicable	
Boiling point	>=93.3 °C	
Flash Point	>=93.3 °C [Test Method:Closed Cup]	
Evaporation rate	<=1 [Ref Std:BUOAC=1]	
Flammability (solid, gas)	Not Applicable	
Flammable Limits(LEL)	No Data Available	
Flammable Limits(UEL)	No Data Available	
Vapour Pressure	<=1,333.2 Pa [@ 20 °C]	
Vapour Density and/or Relative Vapour Density	\Rightarrow =1 [Ref Std:AIR=1]	
Density	1.3 g/ml	
Relative density	1.3 [Test Method:Tested per ASTM protocol] [Ref	
	Std:WATER=1]	
Water solubility	Moderate	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Viscosity/Kinematic Viscosity	1,000 - 5,000 Pa-s [Test Method:Tested per ASTM protocol]	
Volatile Organic Compounds	< 10 g/l	
Percent volatile No Data Available		
VOC Less H2O & Exempt Solvents	< 10 g/l	

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 polymerization may occur. upon depletion of inhibitor or exposure to heat.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

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:

Harmful in contact with skin. Skin Irritation: Signs/symptoms may include localized 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).

Eve 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:

Harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function. Gastrointestinal Effects: Signs/symptoms may include abdominal

pain, stomach upset, nausea, vomiting and diarrhea. Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure. 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.

<u>Ingredient</u>	CAS No.	Class Description	Regulation
2-Ethylhexyl acrylate	103-11-7	Grp. 2B: Possible human carc.	International Agency for Research on 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 >1,000 - =2,000
			mg/kg
Overall product	Ingestion		No data available; calculated ATE >300 - =2,000
			mg/kg
Vinylcaprolactam	Dermal	Rabbit	LD50 1,700 mg/kg
Vinylcaprolactam	Ingestion	Rat	LD50 1,049 mg/kg
CURING AGENT	Dermal	Rat	LD50 > 5,000 mg/kg
CURING AGENT	Inhalation-	Rat	LC50 > 1 mg/l
	Dust/Mist		
	(4 hours)		
CURING AGENT	Ingestion	Rat	LD50 2,500 mg/kg
2-ETHYLHEXYL ACRYLATE	Dermal	Rabbit	LD50 > 10,000 mg/kg
2-ETHYLHEXYL ACRYLATE	Ingestion	Rat	LD50 4,430 mg/kg
1,6-HEXANEDIOL DIACRYLATE	Dermal	Rabbit	LD50 3,636 mg/kg
1,6-HEXANEDIOL DIACRYLATE	Ingestion	Rat	LD50 > 5,000 mg/kg
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Dermal	Professio	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
TETRAHYDROFURFURYL ACRYLATE	Ingestion	Rat	LD50 882 mg/kg
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Ingestion	Rat	LD50 1,860 mg/kg
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Dermal	Rat	LD50 > 2,000 mg/kg
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-			
TRICHLORO-1,3,5-TRIAZINE RCTN PROD, METHYLATED			
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Ingestion	Rat	LD50 >500, <2,000 mg/kg
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-			
TRICHLORO-1,3,5-TRIAZINE RCTN PROD, METHYLATED		ļ	
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Inhalation-	similar	LC50 2.8 mg/l
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-	Dust/Mist	compoun	
TRICHLORO-1,3,5-TRIAZINE RCTN PROD, METHYLATED	(4 hours)	ds	LD50 - 2 000 //
TRIAZINE DERIVATIVE	Dermal	Rat	LD50 > 2,000 mg/kg
TRIAZINE DERIVATIVE	Ingestion	Rat	LD50 > 2,000 mg/kg
POLY(DIMETHYLSILOXANE)	Dermal	Rabbit	LD50 > 19,400 mg/kg
POLY(DIMETHYLSILOXANE)	Ingestion	Rat	LD50 > 17,000 mg/kg
Phenoxy ET Acrylate	Dermal	Rat	LD50 > 2,000 mg/kg
Phenoxy ET Acrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	Dermal	Rat	LD50 > 2,000 mg/kg
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	Ingestion	Rat	LD50 >300, <2000 mg/kg
Siloxanes and Silicones, 3-[3-(acetyloxy)-2-	Dermal	similar	LD50 > 5,000 mg/kg
hydroxypropoxy]propyl Me, di-Me, 3-[2-hydroxy-3-[(1-oxo-2-		compoun	
propenyl)oxy]propoxy]propyl Me		ds	

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Siloxanes and Silicones, 3-[3-(acetyloxy)-2-	Ingestion	similar	LD50 > 2,000 mg/kg
hydroxypropoxy]propyl Me, di-Me, 3-[2-hydroxy-3-[(1-oxo-2-		compoun	
propenyl)oxy]propoxy]propyl Me		ds	
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-	Rat	LC50 30 mg/l
	Vapor (4		
	hours)		
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
Acrylic Acid	Dermal	Rabbit	LD50 > 2,000 mg/kg
Acrylic Acid	Inhalation-	Rat	LC50 3.8 mg/l
	Dust/Mist		
	(4 hours)		
Acrylic Acid	Ingestion	Rat	LD50 1,250 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
	~	
Vinylcaprolactam	Rabbit	Minimal irritation
Urethane acrylate oligomer	similar	Irritant
	compoun	
	ds	
CURING AGENT	Rabbit	No significant irritation
Amine modified acrylic oligomer	similar	Irritant
	compoun	
	ds	
2-ETHYLHEXYL ACRYLATE	Rabbit	Irritant
1,6-HEXANEDIOL DIACRYLATE	Rabbit	Irritant
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Rabbit	No significant irritation
TETRAHYDROFURFURYL ACRYLATE	Rabbit	Corrosive
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Rabbit	Irritant
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Rabbit	No significant irritation
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-TRICHLORO-		
1,3,5-TRIAZINE RCTN PROD, METHYLATED		
TRIAZINE DERIVATIVE	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
Phenoxy ET Acrylate	Rabbit	No significant irritation
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	Rat	Minimal irritation
Siloxanes and Silicones, 3-[3-(acetyloxy)-2-hydroxypropoxy]propyl Me, di-Me,	similar	No significant irritation
3-[2-hydroxy-3-[(1-oxo-2-propenyl)oxy]propoxy]propyl Me	compoun	
	ds	
Toluene	Rabbit	Irritant
Acrylic Acid	Rabbit	Corrosive

Serious Eve Damage/Irritation

Name	Species	Value
Vinylcaprolactam	Rabbit	Severe irritant
Urethane acrylate oligomer	similar	Severe irritant
	compoun	
	ds	
CURING AGENT	Rabbit	Mild irritant
Amine modified acrylic oligomer	similar	Severe irritant
	compoun	
	ds	
2-ETHYLHEXYL ACRYLATE	Rabbit	No significant irritation
1,6-HEXANEDIOL DIACRYLATE	Rabbit	Moderate irritant
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Rabbit	No significant irritation
TETRAHYDROFURFURYL ACRYLATE	Rabbit	Corrosive
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Rabbit	Severe irritant
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Rabbit	Severe irritant
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-TRICHLORO-		
1,3,5-TRIAZINE RCTN PROD, METHYLATED		
TRIAZINE DERIVATIVE	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation

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Phenoxy ET Acrylate	Rabbit	No significant irritation
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	Rabbit	Mild irritant
Siloxanes and Silicones, 3-[3-(acetyloxy)-2-hydroxypropoxy]propyl Me, di-Me, 3-[2-hydroxy-3-[(1-oxo-2-propenyl)oxy]propoxy]propyl Me	similar compoun ds	No significant irritation
Toluene	Rabbit	Moderate irritant
Acrylic Acid	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Vinylcaprolactam	Mouse	Sensitizing
CURING AGENT	Guinea	Not classified
	pig	
Amine modified acrylic oligomer	similar	Sensitizing
	compoun	
	ds	
2-ETHYLHEXYL ACRYLATE	Human	Sensitizing
	and	
	animal	
1,6-HEXANEDIOL DIACRYLATE	Guinea	Sensitizing
	pig	
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Mouse	Sensitizing
TETRAHYDROFURFURYL ACRYLATE	Professio	Sensitizing
	nal	
	judgeme	
	nt	
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE	Guinea	Sensitizing
	pig	
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6-	Guinea	Not classified
HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-TRICHLORO-	pig	
1,3,5-TRIAZINE RCTN PROD, METHYLATED		
TRIAZINE DERIVATIVE	Mouse	Not classified
Phenoxy ET Acrylate	Guinea	Sensitizing
	pig	
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	Guinea	Not classified
	pig	
Siloxanes and Silicones, 3-[3-(acetyloxy)-2-hydroxypropoxy]propyl Me, di-Me,	similar	Sensitizing
3-[2-hydroxy-3-[(1-oxo-2-propenyl)oxy]propoxy]propyl Me	compoun	
	ds	
Toluene	Guinea	Not classified
	pig	
Acrylic Acid	Guinea	Not classified
	pig	

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Vinylcaprolactam	In Vitro	Not mutagenic
CURING AGENT	In Vitro	Not mutagenic
CURING AGENT	In vivo	Not mutagenic
2-ETHYLHEXYL ACRYLATE	In vivo	Not mutagenic
2-ETHYLHEXYL ACRYLATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,6-HEXANEDIOL DIACRYLATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	In Vitro	Not mutagenic
TETRAHYDROFURFURYL ACRYLATE	In Vitro	Not mutagenic
N,N'-BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)-1,6- HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6-TRICHLORO- 1,3,5-TRIAZINE RCTN PROD, METHYLATED	In Vitro	Not mutagenic
TRIAZINE DERIVATIVE	In Vitro	Not mutagenic
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE	In Vitro	Not mutagenic

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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
2-ETHYLHEXYL ACRYLATE	Dermal	Mouse	Carcinogenic
1,6-HEXANEDIOL DIACRYLATE	Dermal	Mouse	Not 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
CURING AGENT	Ingestion	Not classified for development	Rat	NOAEL 900 mg/kg/day	during gestation
2-ETHYLHEXYL ACRYLATE	Inhalation	Not classified for development	Rat	NOAEL 0.75 mg/l	during gestation
1,6-HEXANEDIOL DIACRYLATE	Not Specified	Not classified for development	Rat	NOAEL 750 mg/kg/day	during organogenesi s
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Not classified for development	Rat	NOAEL 150 mg/kg/day	during gestation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Toxic to female reproduction	Rat	NOAEL 200 mg/kg/day	premating into lactation
2,4,6-Trimethylbenzoyldiphenylphosphine oxide	Ingestion	Toxic to male reproduction	Rat	NOAEL 60 mg/kg/day	85 days
TETRAHYDROFURFURYL ACRYLATE	Ingestion	Toxic to female reproduction	Rat	NOAEL 50 mg/kg/day	premating 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	premating into lactation
Phenoxy ET Acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 800 mg/kg/day	43 days
Phenoxy ET Acrylate	Ingestion	Toxic to female reproduction	Rat	NOAEL 300 mg/kg/day	premating into lactation
Phenoxy ET Acrylate	Ingestion	Toxic to development	Rat	NOAEL 300 mg/kg/day	premating into lactation
N,N'-BIS(2,6- DIISOPROPYLPHENYL)CARBODIIMID E	Ingestion	Not classified for development	Rat	NOAEL 3 mg/kg/day	premating into lactation
N,N'-BIS(2,6- DIISOPROPYLPHENYL)CARBODIIMID E	Ingestion	Not classified for male reproduction	Rat	NOAEL 3 mg/kg/day	28 days
N,N'-BIS(2,6- DIISOPROPYLPHENYL)CARBODIIMID E	Ingestion	Toxic to female reproduction	Rat	NOAEL 1 mg/kg/day	premating into lactation
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 organogenesi s
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
Vinylcaprolactam	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
Urethane acrylate oligomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Amine modified acrylic oligomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-ETHYLHEXYL ACRYLATE	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	NOAEL Not available	
1,6-HEXANEDIOL DIACRYLATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
TETRAHYDROFURFUR YL ACRYLATE	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
N,N'-BIS(2,2,6,6- TETRAMETHYL-4- PIPERIDINYL)-1,6- HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6- TRICHLORO-1,3,5- TRIAZINE RCTN PROD, METHYLATED	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	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
Acrylic Acid	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Specific Target Organ Toxicity - Tepeated exposure						
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
						Duration
Vinylcaprolactam	Inhalation	respiratory system	Causes damage to organs through	Rat	NOAEL	28 days
			prolonged or repeated exposure		0.001 mg/l	
Vinylcaprolactam	Inhalation	blood liver kidney	Not classified	Rat	NOAEL 0.18	90 days

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		and/or bladder eyes			mg/l	
Vinylcaprolactam	Ingestion	liver	Not classified	Rat	NOAEL 260 mg/kg/day	3 months
CURING AGENT	Ingestion	endocrine system liver kidney and/or bladder heart blood immune system nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
2-ETHYLHEXYL ACRYLATE	Inhalation	endocrine system liver	Not classified	Rat	NOAEL 0.75 mg/l	90 days
2-ETHYLHEXYL ACRYLATE	Inhalation	olfactory system	Not classified	Rat	NOAEL 0.08 mg/l	90 days
2-ETHYLHEXYL ACRYLATE	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.75 mg/l	90 days
1,6-HEXANEDIOL DIACRYLATE	Dermal	skin	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 70 mg/kg/day	80 weeks
2,4,6- Trimethylbenzoyldiphenyl phosphine oxide	Ingestion	skin blood liver kidney and/or bladder nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
N,N'-BIS(2,2,6,6- TETRAMETHYL-4- PIPERIDINYL)-1,6- HEXANEDIAMINE, POLYMERS W/MORPHOLINE-2,4,6- TRICHLORO-1,3,5- TRIAZINE RCTN PROD, METHYLATED	Ingestion	gastrointestinal tract immune system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	28 days
N,N'-BIS(2,6- DIISOPROPYLPHENYL) CARBODIIMIDE	Ingestion	heart endocrine system immune system kidney and/or bladder	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 4 mg/kg/day	28 days
N,N'-BIS(2,6- DIISOPROPYLPHENYL) CARBODIIMIDE	Ingestion	bone, teeth, nails, and/or hair hematopoietic system liver nervous system	Not classified	Rat	NOAEL 16 mg/kg/day	28 days
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	13 weeks

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					2,500 mg/kg/day	
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

No data available.

SECTION 13: Disposal considerations

13.1. Disposal 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. 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 polymerized 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.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Health: 3 Flammability: 1 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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