Safety Data Sheet

Document Group:	20-7478-9	**Version Number:**	13.00
Issue Date:	11/29/23	**Supercedes Date:**	12/09/21

SECTION 1: Identification

1.1. Product identifier
3M™ Precision Coatable UV Adhesive 7555

Product Identification Numbers

ID Number	UPC	ID Number	UPC
FS-9100-4314-0			
7100091262			

1.2. Recommended use and restrictions on use

Recommended use
Screen Printing, Screen Printable Adhesive

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	3M France Industrial Adhesives and Tapes Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Flammable Liquid: Category 4.
Skin Sensitizer: Category 1A.
Reproductive Toxicity: Category 1B.

2.2. Label elements
Signal word
Danger

Symbols
Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Combustible liquid.

May cause an allergic skin reaction.
May damage fertility or the unborn child.

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:
Keep cool.
Store locked up in a well-ventilated place.

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

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
ISOOCTYL ACRYLATE	29590-42-9	15 - 50 Trade Secret *
Acrylate Polymer (NJTS Reg No 04499600-7378)	Trade Secret*	15 - 50 Trade Secret *
Hydrogenated Hydrocarbon Resin (NJTS Reg No 04499600-7379)	Trade Secret*	5 - 30 Trade Secret *
Isobornyl Acrylate	5888-33-5	5 - 10 Trade Secret *
Liquid Polymer (NJTS Reg No 04499600-7380)	Trade Secret*	1 - 7 Trade Secret *
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	7473-98-5	< 3 Trade Secret *
Silica	68611-44-9	< 3 Trade Secret *
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl)	None	1 - 3 Trade Secret *

oxo(phenyl)acetate		
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE OXIDE	162881-26-7	0.5 - 1.5 Trade Secret *
DIMETHYL SULFOXIDE	67-68-5	< 1 Trade Secret *
Acrylic Acid	79-10-7	< 0.5 Trade Secret *
Toluene	108-88-3	< 0.3 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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 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

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	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. 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, 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. 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 vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors 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 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 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 authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. 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
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/vapors/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 cool. Store away from acids. Store away from strong bases. 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.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin, Ototoxicant
Toluene	108-88-3	OSHA	TWA:200 ppm;CEIL:300 ppm	
ISOOCTYL ACRYLATE	29590-42-9	AIHA	TWA:37.5 mg/m3(5 ppm)	
DIMETHYL SULFOXIDE	67-68-5	AIHA	TWA:250 ppm	
SILICA, AMORPHOUS	68611-44-9	OSHA	TWA:20 millions of	

			particles/cu. ft.;TWA concentration:0.8 mg/m3	
Acrylic Acid	79-10-7	ACGIH	TWA:2 ppm	A4: Not class. as human carcin, Danger of cutaneous absorption

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
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/vapors/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: 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

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

Appearance

Physical state	Liquid
Color	Clear Colorless
Specific Physical Form:	Viscous
Odor	Pleasant Acrylate
Odor threshold	*No Data Available*

pH	*No Data Available*
Melting point	*Not Applicable*
Boiling Point	196.8 ºC [@ 760 mmHg]
Flash Point	91 ºC [@ 1 atm] [*Test Method:*Closed Cup]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	1 mmHg [@ 25 ºC]
Vapor Density	*No Data Available*
Density	0.9 g/ml
Specific Gravity	0.9 [*Ref Std:*WATER=1]
Solubility In Water	12.4 mg/l [@ 23.1 ºC]
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	2,000 - 15,000 centipoise [@ 20 ºC] [*Test Method:*Brookfield]
Molecular weight	*No Data Available*
Volatile Organic Compounds	7.13 % weight [*Test Method:*tested per EPA method 24]
Percent volatile	40 - 55 % [@ 20 ºC]
VOC Less H2O & Exempt Solvents	<=40 g/l [*Test Method:*tested per EPA method 24]

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.

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

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:
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 diarrhea.

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
Isobornyl Acrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Isobornyl 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
Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Dermal	Rat	LD50 6,929 mg/kg
2-HYDROXY-2-METHYL-1-PHENYL-1-PROPANONE	Ingestion	Rat	LD50 1,694 mg/kg
Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l

Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE OXIDE	Dermal	Rat	LD50 > 2,000 mg/kg
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE 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-Vapor (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
Isobornyl 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-METHYL-1-PHENYL-1-PROPANONE	Rabbit	No significant irritation
Silica	Rabbit	No significant irritation
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE 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
Isobornyl 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-METHYL-1-PHENYL-1-PROPANONE	Rabbit	Mild irritant
Silica	Rabbit	No significant irritation
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE OXIDE	Rabbit	No significant irritation
Acrylic Acid	Rabbit	Corrosive
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
ISOOCTYL ACRYLATE	Mouse	Sensitizing
Isobornyl Acrylate	Human and animal	Sensitizing
Mixture of: 2-(2-((oxo(phenyl)acetyl)oxy)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Guinea pig	Sensitizing

Silica	Human and animal	Not classified
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE OXIDE	Guinea pig	Sensitizing
Acrylic Acid	Guinea pig	Not classified
Toluene	Guinea pig	Not classified

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
ISOOCTYL ACRYLATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
Isobornyl 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
Silica	In Vitro	Not mutagenic
BIS(2,4,6-TRIMETHYLBENZOYL)PHENYLPHOSPHINE 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

Carcinogenicity

Name	Route	Species	Value
ISOOCTYL ACRYLATE	Dermal	Mouse	Not carcinogenic
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
Isobornyl Acrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 500	31 days

				mg/kg/day	
Isobornyl Acrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 100 mg/kg/day	premating into lactation
Isobornyl 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
Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
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 available	poisoning and/or abuse

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	Not classified	Rat	NOAEL 57 mg/kg/day	premating & during gestation

		bladder | respiratory system				
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
Isobornyl 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)ethoxy)ethyl oxo(phenyl)acetate; (2-(2-hydroxyethoxy)ethyl) oxo(phenyl)acetate	Ingestion	gastrointestinal tract | bone, teeth, nails, and/or hair | respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Silica	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through 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	NOAEL 2,500	13 weeks

				species	mg/kg/day	
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

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal 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.

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. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Flammable (gases, aerosols, liquids, or solids)

Health Hazards
Reproductive toxicity

Respiratory or Skin Sensitization

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 2 **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.

Document Group:	20-7478-9	**Version Number:**	13.00
Issue Date:	11/29/23	**Supercedes Date:**	12/09/21

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com