



Safety Data Sheet

Copyright, 2026, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:	34-8561-2	Version Number:	5.03
Issue Date:	09/29/26	Supersedes Date:	05/09/22

SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Weld™ Elastomeric Coating EC-5816

Product Identification Numbers

62-5816-7551-9, 87-3300-0605-4
7000000948, 7100067841

1.2. Recommended use and restrictions on use

Recommended use

Coating

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive and Aerospace Solutions 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 2.
Serious Eye Damage/Irritation: Category 1.
Carcinogenicity: Category 1B.
Reproductive Toxicity: Category 1B.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Corrosion | Exclamation mark | Health Hazard |

Pictograms**Hazard Statements**

Highly flammable liquid and vapor.

Causes serious eye damage.

May cause cancer.

May damage fertility or the unborn child.

May cause drowsiness or dizziness.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure: skin.

May cause damage to organs through prolonged or repeated exposure: respiratory system.

Precautionary statements**Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical, ventilating and lighting equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Do not breathe vapors.

Wash exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, eye protection, face protection, and if needed, respiratory protection (see SDS Section 8).

Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Immediately call a POISON CENTER or doctor.

Get medical attention if you feel unwell.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal:

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

14% of the mixture consists of ingredients of unknown acute oral toxicity.

14% of the mixture consists of ingredients of unknown acute dermal toxicity.

5% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
TETRAHYDROFURAN	109-99-9	30 - 60 Trade Secret *
THERMOPLASTIC POLYURETHANE	Trade Secret*	< 12
Titanium Dioxide	13463-67-7	5 - 10 Trade Secret *
Methyl Ethyl Ketone	78-93-3	5 - 10 Trade Secret *
DIMETHYLFORMAMIDE	68-12-2	3 - 7 Trade Secret *
Antimony Trioxide	1309-64-4	1 - 5 Trade Secret *
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	16883-83-3	< 5
Alkanes, C20-28, chloro	2097144-43-7	<= 4
Cyclohexane	110-82-7	< 1.4
TRIETHYL PHOSPHATE	78-40-0	0.1 - 1 Trade Secret *
Hexane	110-54-3	<= 0.99
Methyl isobutyl ketone	108-10-1	<= 0.99
Toluene	108-88-3	<= 0.99

*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:

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

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). 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 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>
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Antimony	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. 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

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. Cover spill area with a fire-extinguishing foam. 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 metal 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. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving

equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. 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
Methyl isobutyl ketone	108-10-1	ACGIH	TWA:20 ppm;STEL:75 ppm	A3: Confirmed animal carcin.
Methyl isobutyl ketone	108-10-1	OSHA	TWA:410 mg/m3(100 ppm)	
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	
TETRAHYDROFURAN	109-99-9	ACGIH	TWA:50 ppm;STEL:100 ppm	A3: Confirmed animal carcin., Danger of cutaneous absorption
TETRAHYDROFURAN	109-99-9	OSHA	TWA:590 mg/m3(200 ppm)	
Hexane	110-54-3	ACGIH	TWA:50 ppm	Danger of cutaneous absorption
Hexane	110-54-3	OSHA	TWA:1800 mg/m3(500 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	OSHA	TWA:1050 mg/m3(300 ppm)	
ANTIMONY AND COMPOUNDS, AS SB	1309-64-4	OSHA	TWA(as Sb):0.5 mg/m3	
Antimony Trioxide	1309-64-4	ACGIH	TWA(inhalable fraction):0.02 mg/m3	A2: Suspected human carcin.
Titanium Dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3	A3: Confirmed animal carcin.
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
DIMETHYLFORMAMIDE	68-12-2	ACGIH	TWA:5 ppm	A3: Confirmed animal carcin., Danger of cutaneous absorption
DIMETHYLFORMAMIDE	68-12-2	OSHA	TWA:30 mg/m3(10 ppm)	SKIN
TRIETHYL PHOSPHATE	78-40-0	AIHA	TWA:7.45 mg/m3(1 ppm)	
Methyl Ethyl Ketone	78-93-3	ACGIH	TWA:75 ppm;STEL:150 ppm	Danger of cutaneous absorption
Methyl Ethyl Ketone	78-93-3	OSHA	TWA:590 mg/m3(200 ppm)	

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. Use explosion-proof ventilation 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

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**

Physical state	Liquid
Color	White
Odor	Pungent Solvent
Odor threshold	No Data Available
pH	Not Applicable
Melting point	Not Applicable
Boiling Point	151 °F [Details:THF]
Flash Point	6.0 °F [Test Method:Closed Cup] [Details:(based on THF)]
Evaporation rate	No Data Available
Flammability	Flammable Liquid: Category 2.
Flammable Limits(LEL)	2 % volume [Details:(based on THF)]
Flammable Limits(UEL)	11.8 % volume [Details:(based on THF)]
Vapor Pressure	No Data Available
Relative Vapor Density	No Data Available
Density	1.017 g/ml
Relative Density	1.017 [Ref Std:WATER=1]
Solubility in Water	Slight (less than 10%)

Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Kinematic Viscosity	<i>No Data Available</i>
Molecular weight	<i>No Data Available</i>
Volatile Organic Compounds	<=810 g/l [<i>Test Method</i> :tested per EPA method 24]
Percent volatile	<=81 % weight [<i>Test Method</i> :Tested per ASTM protocol]
VOC Less H2O & Exempt Solvents	<=810 g/l [<i>Test Method</i> :tested per EPA method 24]

Particle Characteristics*Not Applicable***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 will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

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:

Contact with the skin during product use is not expected to result in significant irritation. May cause additional health effects (see below).

Eye Contact:

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

Ingestion:

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

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:

Fibrosis: Signs/symptoms may include breathlessness, chronic dry cough, phlegm production, wheezing, and changes in lung function tests. 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.

Ingredient	CAS No.	Class Description	Regulation
Antimony trioxide	1309-64-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Antimony Trioxide	1309-64-4	Anticipated human carcinogen	National Toxicology Program Carcinogens
Dimethylformamide	68-12-2	Grp. 2A: Probable human carc.	International Agency for Research on Cancer
Methyl isobutyl ketone	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Tetrahydrofuran	109-99-9	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	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 >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
TETRAHYDROFURAN	Dermal	Rat	LD50 > 2,000 mg/kg
TETRAHYDROFURAN	Inhalation-Vapor (4 hours)	Rat	LC50 54 mg/l
TETRAHYDROFURAN	Ingestion	Rat	LD50 1,650 mg/kg
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation-Vapor (4 hours)	Rat	LC50 34.5 mg/l
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist	Rat	LC50 > 6.82 mg/l

	(4 hours)		
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
DIMETHYLFORMAMIDE	Dermal	Rat	LD50 > 5,000 mg/kg
DIMETHYLFORMAMIDE	Inhalation-Vapor (4 hours)	Rat	LC50 > 5.9 mg/l
DIMETHYLFORMAMIDE	Ingestion	Rat	LD50 3,010 mg/kg
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Dermal	Rabbit	LD50 > 10,000 mg/kg
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	Rat	LD50 > 15,800 mg/kg
Antimony Trioxide	Dermal	Rabbit	LD50 > 6,685 mg/kg
Antimony Trioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.76 mg/l
Antimony Trioxide	Ingestion	Rat	LD50 > 34,600 mg/kg
Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hexane	Inhalation-Vapor (4 hours)	Rat	LC50 170 mg/l
Hexane	Ingestion	Rat	LD50 > 28,700 mg/kg
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Methyl isobutyl ketone	Dermal	Rabbit	LD50 > 16,000 mg/kg
Methyl isobutyl ketone	Inhalation-Vapor (4 hours)	Rat	LC50 11 mg/l
Methyl isobutyl ketone	Ingestion	Rat	LD50 3,038 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
TRIETHYL PHOSPHATE	Dermal	Guinea pig	LD50 > 21,400 mg/kg
TRIETHYL PHOSPHATE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 8.8 mg/l
TRIETHYL PHOSPHATE	Ingestion	Rat	LD50 1,131 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
TETRAHYDROFURAN	Rabbit	Minimal irritation
Methyl Ethyl Ketone	Rabbit	Minimal irritation
Titanium Dioxide	Rabbit	No significant irritation
DIMETHYLFORMAMIDE	Rabbit	No significant irritation
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Rabbit	Minimal irritation
Antimony Trioxide	Human and animal	Minimal irritation
Hexane	Human and animal	Mild irritant
Cyclohexane	Rabbit	Mild irritant
Methyl isobutyl ketone	Rabbit	Mild irritant
Toluene	Rabbit	Irritant
TRIETHYL PHOSPHATE	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
TETRAHYDROFURAN	Rabbit	Corrosive
Methyl Ethyl Ketone	Rabbit	Severe irritant
Titanium Dioxide	Rabbit	No significant irritation
DIMETHYLFORMAMIDE	Rabbit	Severe irritant
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Rabbit	Mild irritant
Antimony Trioxide	Rabbit	Mild irritant
Hexane	Rabbit	Mild irritant
Cyclohexane	Rabbit	Mild irritant
Methyl isobutyl ketone	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant
TRIETHYL PHOSPHATE	Rabbit	Severe irritant

Skin Sensitization

Name	Species	Value
TETRAHYDROFURAN	Human and animal	Not classified
Titanium Dioxide	Human and animal	Not classified
DIMETHYLFORMAMIDE	Multiple animal species	Not classified
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	similar compounds	Not classified
Antimony Trioxide	Human	Not classified
Hexane	Human	Not classified
Methyl isobutyl ketone	Guinea pig	Not classified
Toluene	Guinea pig	Not classified
TRIETHYL PHOSPHATE	Mouse	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
TETRAHYDROFURAN	In Vitro	Not mutagenic
TETRAHYDROFURAN	In vivo	Not mutagenic
Methyl Ethyl Ketone	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
DIMETHYLFORMAMIDE	In Vitro	Not mutagenic
DIMETHYLFORMAMIDE	In vivo	Not mutagenic
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	In Vitro	Not mutagenic
Antimony Trioxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Antimony Trioxide	In vivo	Some positive data exist, but the data are not sufficient for classification
Hexane	In Vitro	Not mutagenic
Hexane	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Methyl isobutyl ketone	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic

Toluene	In vivo	Not mutagenic
---------	---------	---------------

Carcinogenicity

Name	Route	Species	Value
TETRAHYDROFURAN	Inhalation	Multiple animal species	Carcinogenic
Methyl Ethyl Ketone	Inhalation	Human	Not carcinogenic
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
DIMETHYLFORMAMIDE	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
DIMETHYLFORMAMIDE	Inhalation	Human and animal	Carcinogenic
Antimony Trioxide	Inhalation	Multiple animal species	Carcinogenic
Hexane	Dermal	Mouse	Not carcinogenic
Hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Methyl isobutyl ketone	Inhalation	Multiple animal species	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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
TETRAHYDROFURAN	Ingestion	Not classified for female reproduction	Rat	NOAEL 782 mg/kg/day	2 generation
TETRAHYDROFURAN	Ingestion	Not classified for male reproduction	Rat	NOAEL 782 mg/kg/day	2 generation
TETRAHYDROFURAN	Ingestion	Not classified for development	Rat	NOAEL 305 mg/kg/day	2 generation
TETRAHYDROFURAN	Inhalation	Not classified for development	Mouse	NOAEL 1.8 mg/l	during gestation
Methyl Ethyl Ketone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
DIMETHYLFORMAMIDE	Ingestion	Not classified for male reproduction	Mouse	NOAEL 219 mg/kg/day	2 generation
DIMETHYLFORMAMIDE	Ingestion	Toxic to female reproduction	Mouse	NOAEL 219 mg/kg/day	2 generation
DIMETHYLFORMAMIDE	Dermal	Toxic to development	Rabbit	LOAEL 100 mg/kg/day	during organogenesis
DIMETHYLFORMAMIDE	Ingestion	Toxic to development	Rat	NOAEL 165 mg/kg/day	during organogenesis
DIMETHYLFORMAMIDE	Inhalation	Toxic to development	Rabbit	NOAEL 0.45 mg/l	during organogenesis
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	2 generation
BENZYL 3-HYDROXY-1-ISOPROPYL-	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000	2 generation

2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE				mg/kg/day	
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	2 generation
Antimony Trioxide	Inhalation	Not classified for female reproduction	Rat	LOAEL 0.25 mg/l	premating & during gestation
Hexane	Ingestion	Not classified for development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
Hexane	Inhalation	Not classified for development	Rat	NOAEL 0.7 mg/l	during gestation
Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days
Cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9 mg/l	2 generation
Methyl isobutyl ketone	Inhalation	Not classified for female reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
Methyl isobutyl ketone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Inhalation	Not classified for male reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
Methyl isobutyl ketone	Inhalation	Not classified for development	Mouse	NOAEL 12.3 mg/l	during organogenesis
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
TETRAHYDROFURAN	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
TETRAHYDROFURAN	Inhalation	respiratory irritation	May cause respiratory irritation		NOAEL Not available	
TETRAHYDROFURAN	Inhalation	respiratory system	Not classified	Rabbit	NOAEL 2.9 mg/l	4 hours
TETRAHYDROFURAN	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL 180 mg/kg	not applicable
Methyl Ethyl Ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
Methyl Ethyl Ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	

Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Methyl Ethyl Ketone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
DIMETHYLFORMAMIDE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Antimony Trioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
Hexane	Inhalation	respiratory system	Not classified	Rat	NOAEL 24.6 mg/l	8 hours
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Methyl isobutyl ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 0.1 mg/l	2 hours
Methyl isobutyl ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl isobutyl ketone	Inhalation	vascular system	Not classified	Dog	NOAEL Not available	not available
Methyl isobutyl ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 900 mg/kg	not applicable
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
TRIETHYL PHOSPHATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
TETRAHYDROFURAN	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.6 mg/l	12 weeks
TETRAHYDROFURAN	Inhalation	respiratory system	Not classified	Rat	NOAEL 2.9 mg/l	12 weeks
TETRAHYDROFURAN	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.6 mg/l	105 weeks
TETRAHYDROFURAN	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	2 weeks
Methyl Ethyl Ketone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Methyl Ethyl Ketone	Inhalation	liver	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	kidney and/or	Not classified	Rat	NOAEL 14.7	90 days

		bladder			mg/l	
Methyl Ethyl Ketone	Inhalation	heart	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	endocrine system	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	immune system	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Inhalation	muscles	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
DIMETHYLFORMAMIDE	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.61 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	heart	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	immune system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	skin	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	endocrine system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	muscles	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	nervous system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	eyes	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	respiratory system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Inhalation	vascular system	Not classified	Rat	NOAEL 2.43 mg/l	90 days
DIMETHYLFORMAMIDE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	liver	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	heart	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	endocrine system	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	nervous system	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
DIMETHYLFORMAMIDE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 300 mg/kg/day	90 days

DIMETHYLFORMAMIDE	Ingestion	respiratory system	Not classified	Rat	NOAEL 300 mg/kg/day	90 days
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
BENZYL 3-HYDROXY-1-ISOPROPYL-2,2-DIMETHYLPROPYL PHTHALATE ISOBUTYRATE	Ingestion	eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Antimony Trioxide	Dermal	skin	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Antimony Trioxide	Inhalation	pulmonary fibrosis	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.002 mg/l	1 years
Antimony Trioxide	Inhalation	liver	Not classified	Rat	NOAEL 0.043 mg/l	1 years
Antimony Trioxide	Inhalation	blood	Not classified	Rat	NOAEL 0.004 mg/l	not available
Antimony Trioxide	Inhalation	pneumoconiosis	Not classified	Human	LOAEL 0.01 mg/l	occupational exposure
Antimony Trioxide	Inhalation	heart	Not classified	Rat	NOAEL 0.02 mg/l	1 years
Antimony Trioxide	Ingestion	blood	Not classified	Rat	NOAEL 418 mg/kg/day	not available
Antimony Trioxide	Ingestion	liver	Not classified	Rat	NOAEL 418 mg/kg/day	not available
Antimony Trioxide	Ingestion	heart	Not classified	Rat	NOAEL Not available	not available
Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
Hexane	Inhalation	liver	Not classified	Rat	NOAEL Not available	6 months
Hexane	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.76 mg/l	6 months
Hexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 35.2 mg/l	13 weeks
Hexane	Inhalation	auditory system	Not classified	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	immune system	Not classified	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	eyes	Not classified	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	heart	Not classified	Rat	NOAEL 1.76 mg/l	6 months
Hexane	Inhalation	skin	Not classified	Rat	NOAEL 1.76 mg/l	6 months

Hexane	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.76 mg/l	6 months
Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Ingestion	endocrine system	Not classified	Rat	NOAEL Not available	13 weeks
Hexane	Ingestion	hematopoietic system	Not classified	Rat	NOAEL Not available	13 weeks
Hexane	Ingestion	liver	Not classified	Rat	NOAEL Not available	13 weeks
Hexane	Ingestion	immune system	Not classified	Rat	NOAEL Not available	13 weeks
Hexane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL Not available	13 weeks
Cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
Methyl isobutyl ketone	Inhalation	liver	Not classified	Rat	NOAEL 0.41 mg/l	13 weeks
Methyl isobutyl ketone	Inhalation	heart	Not classified	Multiple animal species	NOAEL 0.8 mg/l	2 weeks
Methyl isobutyl ketone	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 0.4 mg/l	90 days
Methyl isobutyl ketone	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 4.1 mg/l	14 weeks
Methyl isobutyl ketone	Inhalation	endocrine system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	90 days
Methyl isobutyl ketone	Inhalation	hematopoietic system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	90 days
Methyl isobutyl ketone	Inhalation	nervous system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	13 weeks
Methyl isobutyl ketone	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Ingestion	heart	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Methyl isobutyl ketone	Ingestion	immune system	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Methyl isobutyl ketone	Ingestion	muscles	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Methyl isobutyl ketone	Ingestion	nervous system	Not classified	Rat	NOAEL	120 days

					1,040 mg/kg/day	
Methyl isobutyl ketone	Ingestion	respiratory system	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Toluene	Inhalation	auditory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	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	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	liver	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	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	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	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	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	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
Hexane	Aspiration hazard
Cyclohexane	Aspiration hazard
Methyl isobutyl ketone	Some positive data exist, but the data are not sufficient for classification
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 in a permitted waste incineration facility. 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.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D035 (Methyl ethyl ketone)

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

Carcinogenicity

Reproductive toxicity

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
DIMETHYLFORMAMIDE	68-12-2	Trade Secret 3 - 7
Antimony Trioxide	1309-64-4	Trade Secret 1 - 5
Cyclohexane	110-82-7	< 1.4
Methyl isobutyl ketone	108-10-1	<= 0.99

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
Alkanes, C20-28, chloro	2097144-43-7	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Applicable

This material contains a chemical regulated by an EPA Significant New Use Rule (TSCA Section 5)

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Reference</u>
Alkanes, C20-28, chloro	2097144-43-7	40CFR721.11068

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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.

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: 3 **Flammability:** 3 **Instability:** 0 **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:	34-8561-2	Version Number:	5.03
Issue Date:	09/29/26	Supersedes Date:	05/09/22

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