



## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ HoldFast 70 Cylinder Spray Adhesive (Clear)

#### Product Identification Numbers

ID Number	UPC	ID Number	UPC
62-4983-8010-4		62-4983-8030-2	
62-4983-8032-8		62-4983-8150-8	
62-4983-8300-9			

7100138479, 7100138618, 7100064044, 7100138480, 7100138478

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Adhesive, Industrial use

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(13)) for consumer paint or coating removal

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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 1.  
 Serious Eye Damage/Irritation: Category 2A.  
 Reproductive Toxicity: Category 1B.  
 Simple Asphyxiant.  
 Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

**Signal word**

Danger

**Symbols**

Flame | Exclamation mark | Health Hazard |

**Pictograms****Hazard Statements**

Extremely flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

May damage fertility or the unborn child.

May displace oxygen and cause rapid suffocation.

**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.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

**Response:**

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

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

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

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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:**

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Store locked up.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

Repeated exposure may cause skin dryness or cracking.

**Supplemental Information:**

Intentional concentration and inhalation may be harmful or fatal.

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

Ingredient	C.A.S. No.	% by Wt
Dimethyl Ether	115-10-6	40 - 50 Trade Secret *
Pentane	109-66-0	20 - 30 Trade Secret *
Non-Hazardous Components	Trade Secret*	15 - 20 Trade Secret *
Acetone	67-64-1	1 - 7 Trade Secret *
Methyl Acetate	79-20-9	< 6 Trade Secret *
Cyclopentane	287-92-3	< 1.5 Trade Secret *
Isopentane	78-78-4	< 1.5 Trade Secret *
Toluene	108-88-3	< 1 Trade Secret *
hexane	110-54-3	< 0.4 Trade Secret *
Methylene Chloride	75-09-2	< 0.1 Trade Secret *

\*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. Remove contact lenses if easy to do. Continue rinsing. 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**

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

**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**

Aldehydes  
 Hydrocarbons  
 Formaldehyde  
 Methane  
 Carbon monoxide  
 Carbon dioxide  
 Ketones  
 Toxic Vapor, Gas, Particulate

**Condition**

During Combustion  
 During Combustion  
 During Combustion  
 During Combustion  
 During Combustion  
 During Combustion  
 During Combustion  
 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. 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. 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. Protect from sunlight. 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
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	
Pentane	109-66-0	ACGIH	TWA:1000 ppm	
Pentane	109-66-0	OSHA	TWA:2950 mg/m3(1000 ppm)	
hexane	110-54-3	ACGIH	TWA:50 ppm	Danger of cutaneous absorption
hexane	110-54-3	OSHA	TWA:1800 mg/m3(500 ppm)	
Dimethyl Ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Cyclopentane	287-92-3	ACGIH	TWA:600 ppm	
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
Acetone	67-64-1	OSHA	TWA:2400 mg/m3(1000 ppm)	
Methylene Chloride	75-09-2	ACGIH	TWA:50 ppm	A3: Confirmed animal carcin.
Methylene Chloride	75-09-2	OSHA	TWA:25 ppm;STEL:125 ppm	29 CFR 1910.1052, SKIN
Isopentane	78-78-4	ACGIH	TWA:1000 ppm	
Methyl Acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	
Methyl Acetate	79-20-9	OSHA	TWA:610 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

Do not remain in area where available oxygen may be reduced. 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:

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

Half facepiece or full facepiece supplied-air respirator

Organic vapor respirators may have short service life.

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 Yellow

#### Odor

Solvent

#### Odor threshold

*No Data Available*

#### pH

*No Data Available*

#### Melting point

*No Data Available*

#### Boiling Point

*No Data Available*

#### Flash Point

-42 °F [*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

*No Data Available*

#### Vapor Density

>=1.6 [*Ref Std*:AIR=1]

#### Density

0.70 g/ml

#### Specific Gravity

0.68 - 0.7 [*Ref Std*:WATER=1]

#### Solubility in Water

Nil

#### Solubility- non-water

*No Data Available*

#### Partition coefficient: n-octanol/ water

*No Data Available*

#### Autoignition temperature

*No Data Available*

#### Decomposition temperature

*Not Applicable*

#### Viscosity

*No Data Available*

#### Hazardous Air Pollutants

0 % weight [*Test Method*:Calculated]

#### Molecular weight

*No Data Available*

#### VOC Less H2O & Exempt Solvents

<=560 g/l [*Test Method*:calculated SCAQMD rule 443.1]

#### Solids Content

15 - 25 % weight

## 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

Sparks and/or flames

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not 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:

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

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:

Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

#### Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

#### 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:

**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.

**Reproductive/Developmental Toxicity:**

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

**Carcinogenicity:**

Ingredient	CAS No.	Class Description	Regulation
Methylene Chloride	75-09-2	Grp. 2A: Probable human carc.	International Agency for Research on Cancer
Methylene Chloride	75-09-2	Anticipated human carcinogen	National Toxicology Program Carcinogens
Methylene Chloride	75-09-2	Cancer hazard	OSHA Carcinogens

**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 >5,000 mg/kg
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
Pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Dimethyl Ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Methyl Acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl Acetate	Inhalation-Vapor (4 hours)	Rat	LC50 > 49 mg/l
Methyl Acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
Non-Hazardous Components	Dermal	Not available	LD50 > 2,000 mg/kg
Non-Hazardous Components	Ingestion	Not available	LD50 > 2,000 mg/kg
Isopentane	Dermal	Rabbit	LD50 3,000 mg/kg
Isopentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
Isopentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Cyclopentane	Dermal		LD50 estimated to be > 5,000 mg/kg
Cyclopentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 25.3 mg/l
Cyclopentane	Ingestion	Rat	LD50 > 5,000 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
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
Methylene Chloride	Dermal	Rat	LD50 > 2,000 mg/kg
Methylene Chloride	Inhalation-Vapor (4 hours)	Rat	LC50 63.7 mg/l
Methylene Chloride	Ingestion	Rat	LD50 1,410 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Pentane	Rabbit	Minimal irritation
Acetone	Mouse	Minimal irritation
Methyl Acetate	Rabbit	No significant irritation
Non-Hazardous Components	Professional judgement	No significant irritation
Isopentane	Rabbit	Minimal irritation
Cyclopentane	Rabbit	Minimal irritation
Toluene	Rabbit	Irritant
hexane	Human and animal	Mild irritant
Methylene Chloride	Rabbit	Irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Pentane	Rabbit	Mild irritant
Acetone	Rabbit	Severe irritant
Methyl Acetate	Rabbit	Moderate irritant
Non-Hazardous Components	Professional judgement	No significant irritation
Isopentane	Rabbit	Mild irritant
Cyclopentane	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant
hexane	Rabbit	Mild irritant
Methylene Chloride	Rabbit	Severe irritant

**Skin Sensitization**

Name	Species	Value
Pentane	Guinea pig	Not classified
Methyl Acetate	Human	Not classified
Non-Hazardous Components		Not classified
Isopentane	Guinea pig	Not classified
Toluene	Guinea pig	Not classified
hexane	Human	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

Pentane	In vivo	Not mutagenic
Pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dimethyl Ether	In Vitro	Not mutagenic
Dimethyl Ether	In vivo	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methyl Acetate	In Vitro	Not mutagenic
Methyl Acetate	In vivo	Not mutagenic
Isopentane	In vivo	Not mutagenic
Isopentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
hexane	In Vitro	Not mutagenic
hexane	In vivo	Not mutagenic
Methylene Chloride	In vivo	Not mutagenic
Methylene Chloride	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Dimethyl Ether	Inhalation	Rat	Not carcinogenic
Acetone	Not Specified	Multiple animal species	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
hexane	Dermal	Mouse	Not carcinogenic
hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Methylene Chloride	Inhalation	Multiple animal species	Carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Pentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Pentane	Inhalation	Not classified for development	Rat	NOAEL 30 mg/l	during organogenesis
Dimethyl Ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 ppm	during organogenesis
Acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
Isopentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Isopentane	Inhalation	Not classified for development	Rat	NOAEL 30 mg/l	during organogenesis

					s
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
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
Methylene Chloride	Inhalation	Not classified for female reproduction	Rat	NOAEL 5.2 mg/l	2 generation
Methylene Chloride	Inhalation	Not classified for male reproduction	Rat	NOAEL 5.2 mg/l	2 generation
Methylene Chloride	Inhalation	Not classified for development	Multiple animal species	NOAEL 4.3 mg/l	during gestation

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Pentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Pentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Pentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	not available
Pentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	not available
Dimethyl Ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl Ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Methyl Acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	blindness	Not classified		NOAEL Not	

					available	
Methyl Acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Isopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Isopentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Isopentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	not available
Isopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	not available
Cyclopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL Not available	
Cyclopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	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
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
Methylene Chloride	Dermal	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	4 hours
Methylene Chloride	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Methylene Chloride	Inhalation	blood	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methylene Chloride	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Pentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart   skin   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory	Not classified	Rat	NOAEL 20 mg/l	13 weeks

		system				
Pentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
Dimethyl Ether	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	liver	Not classified	Rat	NOAEL 20,000 ppm	30 weeks
Acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart   liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin   bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Methyl Acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
Methyl Acetate	Inhalation	endocrine system   hematopoietic system   liver   immune system   kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
Isopentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Isopentane	Inhalation	heart   skin   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
Toluene	Inhalation	auditory system   eyes   olfactory	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse

		system				
Toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart   liver   kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system   vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver   kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
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   immune system   eyes	Not classified	Human	NOAEL Not available	occupational exposure
hexane	Inhalation	heart   skin   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   hematopoietic system   liver   immune system   kidney and/or bladder	Not classified	Rat	NOAEL Not available	13 weeks
Methylene Chloride	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 6.95 mg/l	2 years
Methylene Chloride	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.17 mg/l	2 years

Methylene Chloride	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 35 mg/l	8 weeks
Methylene Chloride	Inhalation	heart	Not classified	Human	NOAEL Not available	
Methylene Chloride	Inhalation	immune system	Not classified	Rat	NOAEL 18 mg/l	28 days
Methylene Chloride	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,200 mg/kg/day	3 months
Methylene Chloride	Ingestion	blood	Not classified	Rat	NOAEL 249 mg/kg/day	2 years
Methylene Chloride	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,469 mg/kg/day	3 months
Methylene Chloride	Ingestion	eyes	Not classified	Rat	NOAEL 249 mg/kg/day	104 weeks

**Aspiration Hazard**

Name	Value
Pentane	Aspiration hazard
Isopentane	Aspiration hazard
Cyclopentane	Aspiration hazard
Toluene	Aspiration hazard
hexane	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)

**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**

Hazard Not Otherwise Classified (HNOC)

Reproductive toxicity

Serious eye damage or eye irritation

Simple Asphyxiant

Specific target organ toxicity (single or repeated exposure)

**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>
Methylene Chloride	75-09-2	Toxic Substances Control Act (TSCA) 6 Banned or Restricted Use Chemicals	Applicable

**Additional TSCA Information**

<u>Components</u>	<u>CAS No</u>	<u>Additional Information</u>
Methylene Chloride	75-09-2	This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

**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:** 2 **Flammability:** 4 **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.

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