



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ HoldFast 70 Cylinder Spray Adhesive (Clear)

#### Product Identification Numbers

62-4983-8010-4      62-4983-8030-2

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

##### Recommended use

ADHESIVE, Industrial use.

For Industrial or Professional use only.

#### 1.3. Supplier's details

**Address:** 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113  
**Telephone:** 136 136  
**E Mail:** productinfo.au@mmm.com  
**Website:** www.3m.com.au

#### 1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

### SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

#### 2.1. Classification of the substance or mixture

Flammable Liquid: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

**Signal word**

DANGER!

**Symbols**

Flame | Exclamation mark |

**Pictograms**



**Hazard statements**

H224 Extremely flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

**Precautionary statements**

**Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P240 Ground/bond container and receiving equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P233 Keep container tightly closed.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P280B Wear protective gloves and eye/face protection.

**Response:**

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.  
P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**2.3. Other assigned/identified product hazards**

None known.

**2.4. Other hazards which do not result in classification**

Toxic to aquatic life.

### SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Dimethyl Ether	115-10-6	40 - 50
Pentane	109-66-0	20 - 30
Non-hazardous components	Trade Secret	15 - 20
Acetone	67-64-1	1 - 7
Cyclopentane	287-92-3	0 - 1.5
2-methyl butane	78-78-4	0 - 1.5
Nitrogen	7727-37-9	< 1
Heptane	142-82-5	< 0.8
Talc	14807-96-6	< 0.2

### 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

See Section 11.1. Information on toxicological effects.

#### 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  
Carbon monoxide.  
Carbon dioxide.

##### Condition

During combustion.  
During combustion.  
During combustion.  
During combustion.  
During combustion.

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Ketones.

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.

**Hazchem Code:** 2YE

## 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 vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

### 6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. 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 authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. 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/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. 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 vapour 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 oxidising 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

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for the component.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
Pentane	109-66-0	ACGIH	TWA:1000 ppm	
Pentane	109-66-0	Australia OELs	TWA(8 hours):1770 mg/m3(600 ppm);STEL(15 minutes):2210 mg/m3(750 ppm)	
Dimethyl Ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Dimethyl Ether	115-10-6	Australia OELs	TWA(8 hours):760 mg/m3(400 ppm);STEL(15 minutes):950 mg/m3(500 ppm)	
Heptane	142-82-5	ACGIH	TWA:400 ppm;STEL:500 ppm	
Heptane	142-82-5	Australia OELs	TWA(8 hours):1640 mg/m3(400 ppm);STEL(15 minutes):2050 mg/m3(500 ppm)	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	Australia OELs	TWA(8 hours):2.5 mg/m3	
Cyclopentane	287-92-3	Australia OELs	TWA(8 hours): 1720 mg/m3 (600 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	Australia OELs	TWA(8 hours):1185 mg/m3(500 ppm);STEL(15 minutes):2375 mg/m3(1000 ppm)	
Nitrogen	7727-37-9	ACGIH	Limit value not established:	asphyxiant
Nitrogen	7727-37-9	Australia OELs	Limit value not established:	Asphyxiant
2-methyl butane	78-78-4	ACGIH	TWA:1000 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CELL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

## 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/vapours/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.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance

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specifications of AS/NZS 1337.

### 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

Select and use gloves according to AS/NZ 2161.

### Respiratory protection

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

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours

Half facepiece or full facepiece supplied-air respirator.

Organic vapour respirators may have short service life.

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

Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Liquid, Clear to pale yellow, solvent odour.
Odour threshold	No data available.
pH	No data available.
Melting point/Freezing point	No data available.
Boiling point/Initial boiling point/Boiling range	No data available.
Flash point	-41.1 °C [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.
Vapour pressure	No data available.
Vapour density	>=1.6 [Ref Std: AIR=1]
Density	0.7 g/ml
Relative density	0.68 - 0.7 [Ref Std: WATER=1]
Water solubility	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.
Molecular weight	No data available.
VOC less H <sub>2</sub> O & 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. Conditions to avoid**

Sparks and/or flames.

### **10.4. Possibility of hazardous reactions**

Hazardous polymerisation will not occur.

### **10.5 Incompatible materials**

Strong oxidising agents.

### **10.6 Hazardous decomposition products**

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

## **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 labelling, 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**

Intentional concentration and inhalation may be harmful or fatal. 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 localised redness, itching, drying and cracking of skin.

#### **Eye contact**

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

#### **Ingestion**

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

#### **Additional Health Effects:**

**Single exposure may cause target organ effects:**

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

**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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-Vapour (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-Vapour (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Non-hazardous components	Dermal	Not available	LD50 > 2,000 mg/kg
Non-hazardous components	Ingestion	Not available	LD50 > 2,000 mg/kg
2-methyl butane	Dermal	Rabbit	LD50 3,000 mg/kg
2-methyl butane	Inhalation-Vapour (4 hours)	Rat	LC50 > 18 mg/l
2-methyl butane	Ingestion	Rat	LD50 > 2,000 mg/kg
Cyclopentane	Dermal		LD50 estimated to be > 5,000 mg/kg
Cyclopentane	Inhalation-Vapour (4 hours)	Rat	LC50 > 25.3 mg/l
Cyclopentane	Ingestion	Rat	LD50 > 5,000 mg/kg
Nitrogen	Dermal		LD50 estimated to be > 5,000 mg/kg
Nitrogen	Inhalation-Gas		LC50 estimated to be > 50,000 ppm
Nitrogen	Ingestion		LD50 estimated to be > 5,000 mg/kg
Heptane	Dermal	Rabbit	LD50 3,000 mg/kg
Heptane	Inhalation-Vapour (4 hours)	Rat	LC50 103 mg/l
Heptane	Ingestion	Rat	LD50 > 15,000 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Pentane	Rabbit	Minimal irritation
Acetone	Mouse	Minimal irritation
Non-hazardous components	Professional judgement	No significant irritation
2-methyl butane	Rabbit	Minimal irritation
Cyclopentane	Rabbit	Minimal irritation
Nitrogen	Professional judgement	No significant irritation
Heptane	Human	Mild irritant
Talc	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

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Name	Species	Value
Pentane	Rabbit	Mild irritant
Acetone	Rabbit	Severe irritant
Non-hazardous components	Professional judgement	No significant irritation
2-methyl butane	Rabbit	Mild irritant
Cyclopentane	Rabbit	Mild irritant
Nitrogen	Professional judgement	No significant irritation
Heptane	Professional judgement	Moderate irritant
Talc	Rabbit	No significant irritation

**Skin Sensitisation**

Name	Species	Value
Pentane	Guinea pig	Not sensitizing
Non-hazardous components		Not sensitizing
2-methyl butane	Guinea pig	Not sensitizing

**Respiratory Sensitisation**

Name	Species	Value
Talc	Human	Not sensitizing

**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
2-methyl butane	In vivo	Not mutagenic
2-methyl butane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Heptane	In Vitro	Not mutagenic
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Dimethyl Ether	Inhalation	Rat	Not carcinogenic
Acetone	Not specified.	Multiple animal species	Not carcinogenic
Talc	Inhalation	Rat	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
Pentane	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Pentane	Inhalation	Not toxic to	Rat	NOAEL 30	during

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		development		mg/l	organogenesis
Dimethyl Ether	Inhalation	Not toxic to development	Rat	NOAEL 40,000 ppm	during organogenesis
Acetone	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5.2 mg/l	during organogenesis
2-methyl butane	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
2-methyl butane	Inhalation	Not toxic to development	Rat	NOAEL 30 mg/l	during organogenesis
Talc	Ingestion	Not toxic to development	Rat	NOAEL 1,600 mg/kg	during organogenesis

**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	Some positive data exist, but the data are not sufficient for classification	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	Some positive data exist, but the	Human	NOAEL 1.19 mg/l	6 hours

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			data are not sufficient for classification			
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
2-methyl butane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
2-methyl butane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
2-methyl butane	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL Not available	not available
2-methyl butane	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	
Heptane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Heptane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Heptane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	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	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system	All data are negative	Rat	NOAEL 20 mg/l	13 weeks

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		muscles   nervous system   eyes   kidney and/or bladder   respiratory system				
Pentane	Ingestion	kidney and/or bladder	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 days
Dimethyl Ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 20,000 ppm	30 weeks
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart   liver	All data are negative	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are	Rat	NOAEL 3,400	13 weeks

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			negative		mg/kg/day	
Acetone	Ingestion	respiratory system	All data are negative	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	All data are negative	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin   bone, teeth, nails, and/or hair	All data are negative	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
2-methyl butane	Inhalation	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
2-methyl butane	Inhalation	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system	All data are negative	Rat	NOAEL 20 mg/l	13 weeks
2-methyl butane	Ingestion	kidney and/or bladder	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 days
Heptane	Inhalation	liver   nervous system   kidney and/or bladder	All data are negative	Rat	NOAEL 12 mg/l	26 weeks
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis   respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 18 mg/m3	113 weeks

**Aspiration Hazard**

Name	Value
Pentane	Aspiration hazard
2-methyl butane	Aspiration hazard
Cyclopentane	Aspiration hazard
Heptane	Aspiration hazard

**Exposure Levels**

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

**Interactive Effects**

Not determined.

**SECTION 12: Ecological 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. Additional information leading to material classification in

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Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

**12.1. Toxicity**

**Acute aquatic hazard:**

GHS Acute 2: Toxic to aquatic life.

**Chronic aquatic hazard:**

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Talc	14807-96-6		Data not available or insufficient for classification			
Pentane	109-66-0	Water flea	Experimental	48 hours	EC50	2.7 mg/l
Pentane	109-66-0	Rainbow trout	Experimental	96 hours	LC50	4.26 mg/l
Pentane	109-66-0	Green Algae	Experimental	72 hours	EC50	7.51 mg/l
Pentane	109-66-0	Green Algae	Experimental	72 hours	NOEC	2.04 mg/l
Cyclopentane	287-92-3	Water flea	Experimental	48 hours	EC50	10.5 mg/l
Dimethyl Ether	115-10-6	Guppy	Experimental	96 hours	LC50	>4,000 mg/l
Dimethyl Ether	115-10-6	Water flea	Experimental	48 hours	EC50	>4,000 mg/l
Non-hazardous components	Trade Secret		Data not available or insufficient for classification			
Heptane	142-82-5		Data not available or insufficient for classification			
Acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
Acetone	67-64-1	Green Algae	Experimental	96 hours	EC50	2,574 mg/l
Acetone	67-64-1	Water flea	Experimental	48 hours	EC50	13,500 mg/l
2-methyl butane	78-78-4		Data not available or insufficient for classification			
Nitrogen	7727-37-9		Data not available or insufficient for classification			

**12.2. Persistence and degradability**

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Pentane	109-66-0	Experimental Photolysis		Photolytic half-life (in air)	8.07 days (t 1/2)	Other methods
Pentane	109-66-0	Experimental Biodegradation	28 days	BOD	96 % weight	OECD 301C - MITI test (I)
Dimethyl Ether	115-10-6	Experimental Photolysis		Photolytic half-life (in air)	10.77 days (t 1/2)	Other methods

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Heptane	142-82-5	Experimental Photolysis		Photolytic half-life (in air)	4.24 days (t 1/2)	Other methods
Heptane	142-82-5	Experimental Biodegradation	28 days	BOD	101 % weight	OECD 301C - MITI test (I)
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Non-hazardous components	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cyclopentane	287-92-3	Experimental Photolysis		Photolytic half-life (in air)	6.11 days (t 1/2)	Other methods
Cyclopentane	287-92-3	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301F - Manometric respirometry
Acetone	67-64-1	Experimental Biodegradation	28 days	BOD	96 % weight	OECD 301C - MITI test (I)
Nitrogen	7727-37-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-methyl butane	78-78-4	Experimental Photolysis		Photolytic half-life (in air)	8.11 days (t 1/2)	Other methods

**12.3 : Bioaccumulative potential**

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dimethyl Ether	115-10-6	Experimental Bioconcentration		Log Kow	0.2	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Non-hazardous components	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cyclopentane	287-92-3	Experimental Bioconcentration		Log Kow	3.00	Other methods
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	Other methods
Nitrogen	7727-37-9	Experimental Bioconcentration		Log Kow	0.67	Other methods

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5 Other adverse effects**

No information available.

## 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.

## SECTION 14: Transport Information

### Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: UN3501

**Proper shipping name:** CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. , ( Dimethyl Ether and Pentane )

**Class/Division:** 2.1

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**Hazchem Code:** 2YE

**IERG:** 04

### International Air Transport Association (IATA) - Air Transport

UN No.: UN3501

**Proper shipping name:** CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. , ( Dimethyl Ether and Pentane )

**Class/Division:** 2.1

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

### International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: UN3501

**Proper shipping name:** CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. , ( Dimethyl Ether and Pentane )

**Class/Division:** 2.1

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**Marine Pollutant:** Not applicable.

## SECTION 15: Regulatory information

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

#### Australian Inventory Status:

The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

**Poison Schedule:** This product has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

## SECTION 16: Other information

### Revision information:

Update to Section 12, Ecological information.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our

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knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

**3M Australia SDSs are available at [www.3m.com.au](http://www.3m.com.au)**