



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ Super 77™ Cylinder Spray Adhesive (clear or red)

#### Product Identification Numbers

62-4979-8032-6

7100138125

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Industrial use.

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

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

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

Flammable Liquid, Category 1 - Flam. Liq. 1; H224  
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336  
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

## 2.2. Label elements

### CLP REGULATION (EC) No 1272/2008

#### SIGNAL WORD

DANGER.

#### Symbols:

GHS02 (Flame) | GHS07 (Exclamation mark) | GHS09 (Environment) |

#### Pictograms



#### Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Hydrotreated light naphtha (hexane mix)	601-007-00-7		15 - 40

#### HAZARD STATEMENTS:

H224	Extremely flammable liquid and vapour.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261E	Avoid breathing vapour or spray.
P273	Avoid release to the environment.

##### Response:

P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.
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##### Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
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##### Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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Contains 8% of components with unknown hazards to the aquatic environment.

#### Notes on labelling

H304 not applied because material is a spray cylinder.

## 2.3. Other hazards

None known.

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

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Hydrotreated light naphtha (hexane mix)	601-007-00-7			15 - 40	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411 - Nota 4,C
pentane	109-66-0	203-692-4		< 5	Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336; EUH066; Aquatic Chronic 2, H411 - Nota C
Non-Volatile Components	Trade Secret			20 - 30	Substance not classified as hazardous
dimethyl ether	115-10-6	204-065-8	01-2119472128-37	10 - 30	Flam. Gas 1, H220; Liquefied gas, H280 - Nota U
cyclohexane	110-82-7	203-806-2		10 - 24	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1
propane	74-98-6	200-827-9	01-2119486944-21	3 - 7	Flam. Gas 1, H220; Liquefied gas, H280 - Nota U
Isobutane	75-28-5	200-857-2	01-2119485395-27	3 - 7	Flam. Gas 1, H220; Liquefied gas, H280 - Nota C,U
Limestone	1317-65-3	215-279-6		< 2	Substance with a Community level exposure limit in the workplace

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

Remove person to fresh air. 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**

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

**SECTION 5: Fire-fighting measures**

**5.1. 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.

**5.3. Advice 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 vapours, 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.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

### 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/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. Use personal protective equipment (eg. gloves, respirators...) 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 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. Store away from heat. Store away from acids. Store away from oxidising agents.

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

### 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.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
pentane	109-66-0	UK HSC	TWA:1800 mg/m <sup>3</sup> (600 ppm)	
cyclohexane	110-82-7	UK HSC	TWA:350 mg/m <sup>3</sup> (100 ppm);STEL:1050 mg/m <sup>3</sup> (300 ppm)	
dimethyl ether	115-10-6	UK HSC	TWA:766 mg/m <sup>3</sup> (400 ppm);STEL:958 mg/m <sup>3</sup> (500 ppm)	
Limestone	1317-65-3	UK HSC	TWA(as inhalable dust):10 mg/m <sup>3</sup> ;TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(respirable):4 mg/m <sup>3</sup>	
propane	74-98-6	UK HSC	Limit value not established:	asphyxiant

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

##### Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from UK

HSC

## 8.2. Exposure controls

In addition, refer to the annex for more information.

### 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.

#### *Applicable Norms/Standards*

Use eye protection conforming to EN 166

#### 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.

Gloves made from the following material(s) are recommended:

<b>Material</b>	<b>Thickness (mm)</b>	<b>Breakthrough Time</b>
Fluoroelastomer	No data available	No data available
Nitrile rubber.	No data available	No data available

#### *Applicable Norms/Standards*

Use gloves tested to EN 374

#### 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 and particulates

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.

#### *Applicable Norms/Standards*

Use a respirator conforming to EN 140 or EN 136

Use a respirator conforming to EN 140 or EN 136: filter types A & P

### 8.2.3. Environmental exposure controls

Refer to Annex

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance****Physical state**

Liquid.

**Colour**

Multicolor

**Odor**

Solvent

**Odour threshold***No data available.***pH***Not applicable.***Boiling point/boiling range**

&lt;=20 °C

**Melting point***Not applicable.***Flammability (solid, gas)**

Not applicable.

**Explosive properties**

Not classified

**Oxidising properties**

Not classified

**Flash point**-45.6 °C [*Test Method*:Closed Cup] [*Details*:Flammable Gas]**Autoignition temperature***No data available.***Flammable Limits(LEL)**

1.2 % volume

**Flammable Limits(UEL)**

27 % volume

**Vapour pressure**583985.9 Pa [*@* 20 °C ]**Relative density**0.735 [*Ref Std*:WATER=1]**Water solubility**

Nil

**Solubility- non-water***No data available.***Partition coefficient: n-octanol/water***No data available.***Evaporation rate***No data available.***Vapour density**>=1 [*Ref Std*:AIR=1]**Decomposition temperature***Not applicable.***Viscosity***Not applicable.***Density**

0.735 g/ml

**9.2. Other information****EU Volatile Organic Compounds***No data available.***Molecular weight***No data available.***Solids content**

20 - 30 %

**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 polymerisation will not occur.

**10.4 Conditions to avoid**

Heat.

Sparks and/or flames.

**10.5 Incompatible materials**

Strong oxidising 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

### 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

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

#### Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### 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:

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

Single exposure, above recommended guidelines, may cause:

Cardiac sensitisation: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

#### Reproductive/Developmental Toxicity:

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

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-		No data available; calculated ATE >50 mg/l



**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

	Vapour(4 hr)		
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrotreated light naphtha (hexane mix)	Dermal		LD50 estimated to be > 5,000 mg/kg
Hydrotreated light naphtha (hexane mix)	Inhalation-Vapour		LC50 estimated to be > 50 mg/l
Hydrotreated light naphtha (hexane mix)	Ingestion		LD50 estimated to be > 5,000 mg/kg
cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
cyclohexane	Inhalation-Vapour (4 hours)	Rat	LC50 > 32.9 mg/l
cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
dimethyl ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Non-Volatile Components	Dermal		LD50 estimated to be > 5,000 mg/kg
Non-Volatile Components	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
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
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Hydrotreated light naphtha (hexane mix)	Professional judgement	Mild irritant
cyclohexane	Rabbit	Mild irritant
Non-Volatile Components	Professional judgement	Minimal irritation
Isobutane	Professional judgement	No significant irritation
propane	Rabbit	Minimal irritation
pentane	Rabbit	Minimal irritation
Limestone	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Hydrotreated light naphtha (hexane mix)	Professional judgement	Moderate irritant
cyclohexane	Rabbit	Mild irritant
Isobutane	Professional	No significant irritation

**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

	nal judgemen t	
propane	Rabbit	Mild irritant
pentane	Rabbit	Mild irritant
Limestone	Rabbit	No significant irritation

**Skin Sensitisation**

Name	Species	Value
pentane	Guinea pig	Not classified

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

Name	Route	Value
cyclohexane	In Vitro	Not mutagenic
cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
dimethyl ether	In Vitro	Not mutagenic
dimethyl ether	In vivo	Not mutagenic
Isobutane	In Vitro	Not mutagenic
propane	In Vitro	Not mutagenic
pentane	In vivo	Not mutagenic
pentane	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

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
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
dimethyl ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 ppm	during organogenesis
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
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematings & during gestation

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Hydrotreated light naphtha (hexane mix)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professional	NOAEL Not available	

**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

				judgement		
Hydrotreated light naphtha (hexane mix)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hydrotreated light naphtha (hexane mix)	Inhalation	cardiac sensitisation	Not classified	Dog	NOAEL Not available	
Hydrotreated light naphtha (hexane mix)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
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	
dimethyl ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
dimethyl ether	Inhalation	cardiac sensitisation	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Isobutane	Inhalation	cardiac sensitisation	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	Not classified	Mouse	NOAEL Not available	
propane	Inhalation	cardiac sensitisation	Causes damage to organs	Human	NOAEL Not available	
propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
propane	Inhalation	respiratory irritation	Not classified	Human	NOAEL Not available	
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 sensitisation	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
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Hydrotreated light naphtha (hexane mix)	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
Hydrotreated light naphtha (hexane mix)	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
Hydrotreated light naphtha (hexane mix)	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7	90 days

**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

					mg/l	
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
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
Isobutane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4,500 ppm	13 weeks
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 system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
pentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

Name	Value
Hydrotreated light naphtha (hexane mix)	Aspiration hazard
cyclohexane	Aspiration hazard
pentane	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**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

**12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Hydrotreated light naphtha (hexane mix)	601-007-00-7		Data not available or insufficient for classification			
pentane	109-66-0	Green Algae	Experimental	72 hours	EC50	10.7 mg/l
pentane	109-66-0	Rainbow trout	Experimental	96 hours	LC50	4.26 mg/l

**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

pentane	109-66-0	Water flea	Experimental	48 hours	EC50	2.7 mg/l
pentane	109-66-0	Green Algae	Experimental	72 hours	NOEC	2.04 mg/l
Non-Volatile Components	Trade Secret		Data not available or insufficient for classification			
dimethyl ether	115-10-6	Guppy	Experimental	96 hours	LC50	>4,100 mg/l
dimethyl ether	115-10-6	Water flea	Experimental	48 hours	EC50	>4,400 mg/l
cyclohexane	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
cyclohexane	110-82-7	Fathead minnow	Experimental	96 hours	LC50	4.53 mg/l
propane	74-98-6		Data not available or insufficient for classification			
Isobutane	75-28-5		Data not available or insufficient for classification			
Limestone	1317-65-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Limestone	1317-65-3	Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Limestone	1317-65-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	Effect Concentration 10%	>100 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrotreated light naphtha (hexane mix)	601-007-00-7	Data not available or insufficient			N/A	
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	87 % BOD/ThBOD	OECD 301F - Manometric respirometry
Non-Volatile Components	Trade Secret	Data not available or insufficient			N/A	
dimethyl ether	115-10-6	Experimental Photolysis		Photolytic half-life (in air)	12.4 days (t 1/2)	Other methods
dimethyl ether	115-10-6	Experimental Biodegradation	28 days	BOD	5 % weight	OECD 301D - Closed bottle test
cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.14 days (t 1/2)	Other methods
cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
propane	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	Other methods
Isobutane	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.4 days (t 1/2)	Other methods
Limestone	1317-65-3	Data not available or insufficient			N/A	

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Hydrotreated light naphtha (hexane mix)	601-007-00-7	Estimated Bioconcentration		Bioaccumulation factor	150	Estimated: Bioconcentration factor
pentane	109-66-0	Estimated Bioconcentration		Bioaccumulation factor	26	Estimated: Bioconcentration factor
Non-Volatile Components	Trade Secret	Data not available or insufficient for	N/A	N/A	N/A	N/A

**3M™ Super 77™ Cylinder Spray Adhesive (clear or red)**

		classification				
dimethyl ether	115-10-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
cyclohexane	110-82-7	Experimental BCF-Carp	56 days	Bioaccumulation factor	129	OECD 305E - Bioaccumulation flow-through fish test
propane	74-98-6	Experimental Bioconcentration		Log Kow	2.36	Other methods
Isobutane	75-28-5	Experimental Bioconcentration		Log Kow	2.76	Other methods
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5. Results of the PBT and vPvB assessment**

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

- 08 04 09\* Waste adhesives and sealants containing organic solvents or other dangerous substances
- 16 05 04\* Gases in pressure containers (including halons) containing dangerous substances

**EU waste code (product container after use)**

- 15 01 04 Metallic packaging

**SECTION 14: Transportation information**

62-4979-8032-6

**ADR/RID:** UN3501, CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S., (CONTAINS DIMETHYL ETHER), (CYCLOHEXANE), 2.1, (B/D).

**IMDG-CODE:** UN3501, CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S., (CONTAINS DIMETHYL ETHER), (CYCLOHEXANE), 2.1, IMDG-Code segregation code: NONE, EMS: FD, SU.

**ICAO/IATA:** UN3501, CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S., (CONTAINS DIMETHYL ETHER),

(CYCLOHEXANE), 2.1.

## SECTION 15: Regulatory information

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

#### Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

<u>Ingredient</u>	<u>CAS Nbr</u>
cyclohexane	110-82-7

Restriction status: listed in REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

### 15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

## SECTION 16: Other information

### List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

#### Revision information:

Industrial Use of Adhesives: Section 16: Annex information was deleted.

Professional Use of Adhesives and Sealants: Section 16: Annex information was deleted.

CLP: Ingredient table information was modified.

Label: CLP Classification information was modified.

Section 3: Composition/ Information of ingredients table information was modified.

Section 5: Hazardous combustion products table information was modified.

Section 8: DNEL table row information was deleted.

Section 8: Eye/face protection information information was modified.

Section 8: Occupational exposure limit table information was modified.

Section 8: PNEC table row information was deleted.

Section 11: Acute Toxicity table information was modified.

Section 11: Aspiration Hazard Table information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Eye information information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 11: Reproductive Toxicity Table information was modified.  
Section 11: Serious Eye Damage/Irritation Table information was modified.  
Section 11: Skin Corrosion/Irritation Table information was modified.  
Section 11: Skin Sensitization Table information was modified.  
Section 11: Target Organs - Repeated Table information was modified.  
Section 11: Target Organs - Single Table information was modified.  
Section 12: Component ecotoxicity information information was modified.  
Section 12: Persistence and Degradability information information was modified.  
Section 12: Bioaccumulative potential information information was modified.  
Section 15: Label remarks and EU Detergent information was modified.  
Section 15: Restrictions on manufacture ingredients information information was modified.  
Annex: Prediction of exposure statement information was deleted.  
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material.  
information was modified.  
Section 16: UK disclaimer information was deleted.

## **Annex**

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our 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 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

**3M United Kingdom MSDSs are available at [www.3M.com/uk](http://www.3M.com/uk)**