



## 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™ General Trim Adhesive, 08088

#### Product Identification Numbers

60-4551-0220-6 AS-0105-5825-7

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

##### Recommended use

Automotive., Automotive trim adhesive., High strength adhesive for bonding automotive materials (carpeting, fabrics, plastics) to metal and other surfaces.

For Industrial or Professional use only.

##### Restrictions on use

Not recommended for bonding polystyrene foam.

#### 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, in accordance with applicable State and Territory legislation.

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

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

Flammable Aerosol: Category 1.

Gas under pressure: Liquefied gas.

Serious Eye Damage/Irritation: Category 2.  
 Reproductive Toxicity: Category 1.  
 Specific Target Organ Toxicity (single exposure): Category 2.

## 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 | Gas cylinder | Exclamation mark | Health Hazard |

### Pictograms



### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H371	May cause damage to organs: cardiovascular system.

### Precautionary statements

#### General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

#### Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280F	Wear respiratory protection.

#### Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.

P337 + P313

IF eye irritation persists: Get medical advice/attention.

**Storage:**

P403 + P233

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

P405

Store locked up.

P410 + P412

Protect from sunlight. Do not expose to temperatures exceeding 50°C.

**Disposal:**

P501

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

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

Aspiration classification does not apply as this product is sold in sealed, self-pressurized containers with nozzles designed to prevent formation of a stream during usage. May displace oxygen and cause rapid suffocation.

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

Causes mild skin irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.

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	30 - 60
Methyl acetate	79-20-9	15 - 40
Non-volatile Components	Trade Secret	10 - 20
Cyclohexane	110-82-7	7 - 13
1,1-Difluoroethane	75-37-6	1 - 5
Naphtha (petroleum), hydrotreated heavy	64742-48-9	0.5 - 1.5
Distillates (petroleum), hydrotreated light	64742-47-8	0.5 - 1.5
Toluene	108-88-3	< 0.4

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

Remove person to fresh air. Get medical attention.

**Skin contact**

Wash with soap and water. 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**

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details.

**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. Suitable extinguishing media**

Use a fire fighting agent suitable for the surrounding fire.

**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.  
Formaldehyde  
Carbon monoxide.  
Carbon dioxide.

**Condition**

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.

**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**

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**

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. 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 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 in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. 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 contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

## 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store away from heat. 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 for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcinogen, Ototoxicant
Toluene	108-88-3	Australia OELs	TWA(8 hours):191 mg/m <sup>3</sup> (50 ppm);STEL(15 minutes):574 mg/m <sup>3</sup> (150 ppm)	SKIN
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	Australia OELs	TWA(8 hours):350 mg/m <sup>3</sup> (100 ppm);STEL(15 minutes):1050 mg/m <sup>3</sup> (300 ppm)	
Dimethyl Ether	115-10-6	AIHA	TWA:1880 mg/m <sup>3</sup> (1000 ppm)	
Dimethyl Ether	115-10-6	Australia OELs	TWA(8 hours):760 mg/m <sup>3</sup> (400 ppm);STEL(15 minutes):950 mg/m <sup>3</sup> (500 ppm)	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapour, non-aerosol):200 mg/m <sup>3</sup>	A3: Confirmed animal carcin., SKIN
1,1-Difluoroethane	75-37-6	AIHA	TWA:2700 mg/m <sup>3</sup> (1000 ppm)	
Methyl acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	
Methyl acetate	79-20-9	Australia OELs	TWA(8 hours):606 mg/m <sup>3</sup> (200 ppm);STEL(15 minutes):757 mg/m <sup>3</sup> (250 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

CEIL: 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.

#### 8.2.2. Personal protective equipment (PPE)

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full face shield.

Indirect vented goggles.

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

Gloves made from the following material(s) are recommended: Fluoroelastomer  
Nitrile rubber.

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 supplied-air respirator.

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**

<b>Physical state</b>	Liquid.
<b>Specific Physical Form:</b>	Aerosol
<b>Colour</b>	Colourless
<b>Odour</b>	Sweet Odour, Fruity Odour
<b>Odour threshold</b>	<i>No data available.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Melting point/Freezing point</b>	<i>No data available.</i>
<b>Boiling point/Initial boiling point/Boiling range</b>	<i>No data available.</i>
<b>Flash point</b>	-40 °C [ <i>Test Method: Tagliabue closed cup</i> ]
<b>Evaporation rate</b>	1.9 [ <i>Ref Std: ETHER=1</i> ]
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammable Limits(LEL)</b>	<i>No data available.</i>
<b>Flammable Limits(UEL)</b>	<i>No data available.</i>
<b>Vapour pressure</b>	<i>No data available.</i>
<b>Vapor Density and/or Relative Vapor Density</b>	2.97 [ <i>Ref Std: AIR=1</i> ]
<b>Density</b>	0.781 g/ml [ <i>Details: Refers to density of the liquid.</i> ]
<b>Relative density</b>	0.781 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Nil

<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Autoignition temperature</b>	<i>No data available.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>No data available.</i>
<b>Volatile organic compounds (VOC)</b>	54.5 % weight [ <i>Test Method:calculated per CARB title 2</i> ]
<b>Percent volatile</b>	84.2 % weight
<b>VOC less H2O &amp; exempt solvents</b>	570 g/l [ <i>Test Method:calculated SCAQMD rule 443.1</i> ]
<b>Molecular weight</b>	<i>Not applicable.</i>

**Nanoparticles**

This material does not contain nanoparticles.

**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**

Heat.

Sparks and/or flames.

**10.4. Possibility of hazardous reactions**

Hazardous polymerisation will not occur.

**10.5 Incompatible materials**

Strong oxidising agents.

Alkali and alkaline earth metals.

**10.6 Hazardous decomposition products****Substance****Condition**

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**

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 localized redness, swelling, itching, and dryness.

#### 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 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 Sensitization: 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-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Dimethyl Ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Methyl acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl acetate	Inhalation-Vapour (4 hours)	Rat	LC50 > 49 mg/l
Methyl acetate	Ingestion	Rat	LD50 > 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
Non-volatile Components	Dermal		LD50 estimated to be > 5,000 mg/kg
Non-volatile Components	Ingestion	Rat	LD50 > 34,000 mg/kg
1,1-Difluoroethane	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
1,1-Difluoroethane	Ingestion	Rat	LD50 > 1,500 mg/kg
Naphtha (petroleum), hydrotreated heavy	Inhalation-Vapour		LC50 estimated to be 20 - 50 mg/l
Distillates (petroleum), hydrotreated light	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Naphtha (petroleum), hydrotreated heavy	Dermal	Rabbit	LD50 > 5,000 mg/kg



Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 5,000 mg/kg
Naphtha (petroleum), hydrotreated heavy	Ingestion	Rat	LD50 > 5,000 mg/kg
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Name	Species	Value
Methyl acetate	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Naphtha (petroleum), hydrotreated heavy	Rabbit	Minimal irritation
Distillates (petroleum), hydrotreated light	Rabbit	Minimal irritation
Toluene	Rabbit	Irritant

### Serious Eye Damage/Irritation

Name	Species	Value
Methyl acetate	Rabbit	Moderate irritant
Cyclohexane	Rabbit	Mild irritant
Naphtha (petroleum), hydrotreated heavy	Rabbit	Mild irritant
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant

### Skin Sensitisation

Name	Species	Value
Methyl acetate	Human	Not classified
Naphtha (petroleum), hydrotreated heavy	Guinea pig	Not classified
Distillates (petroleum), hydrotreated light	Guinea pig	Not classified
Toluene	Guinea pig	Not classified

### Respiratory Sensitisation

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

### Germ Cell Mutagenicity

Name	Route	Value
Dimethyl Ether	In Vitro	Not mutagenic
Dimethyl Ether	In vivo	Not mutagenic
Methyl acetate	In Vitro	Not mutagenic
Methyl acetate	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In vivo	Some positive data exist, but the data are not sufficient for classification
Naphtha (petroleum), hydrotreated heavy	In Vitro	Not mutagenic
Naphtha (petroleum), hydrotreated heavy	In vivo	Not mutagenic

Distillates (petroleum), hydrotreated light	In Vitro	Not mutagenic
Distillates (petroleum), hydrotreated light	In vivo	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
Dimethyl Ether	Inhalation	Rat	Not carcinogenic
1,1-Difluoroethane	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Naphtha (petroleum), hydrotreated heavy	Not specified.	Not available	Not carcinogenic
Distillates (petroleum), hydrotreated light	Not specified.	Not available	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

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Dimethyl Ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 ppm	during organogenesis
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
1,1-Difluoroethane	Inhalation	Not classified for development	Rat	NOAEL 50,000 ppm	during organogenesis
Naphtha (petroleum), hydrotreated heavy	Not specified.	Not classified for female reproduction	Not available	NOAEL NA	1 generation
Naphtha (petroleum), hydrotreated heavy	Not specified.	Not classified for male reproduction	Not available	NOAEL NA	28 days
Naphtha (petroleum), hydrotreated heavy	Not specified.	Not classified for development	Not applicable	NOAEL NA	during gestation
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Distillates (petroleum), hydrotreated light	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

## Target Organ(s)

## Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
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	
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	
1,1-Difluoroethane	Inhalation	cardiac sensitization	Causes damage to organs	Human and animal	NOAEL Not available	poisoning and/or abuse
1,1-Difluoroethane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL 100,000 ppm	
1,1-Difluoroethane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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
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
Cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
1,1-Difluoroethane	Inhalation	hematopoietic system   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Toluene	Inhalation	auditory system   eyes   olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
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	Not classified	Multiple	NOAEL 11.3	15 weeks

		tract		animal species	mg/l	
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

### Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
Naphtha (petroleum), hydrotreated heavy	Aspiration hazard
Distillates (petroleum), hydrotreated light	Aspiration hazard
Toluene	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 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
Dimethyl Ether	115-10-6	Bacteria	Experimental		EC10	>1,600 mg/l
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
Methyl acetate	79-20-9	Bacteria	Experimental	16 hours	EC50	6,000 mg/l
Methyl acetate	79-20-9	Green algae	Experimental	72 hours	EC50	>120 mg/l
Methyl acetate	79-20-9	Water flea	Experimental	48 hours	EC50	1,026.7 mg/l
Methyl acetate	79-20-9	Green algae	Experimental	72 hours	NOEC	120 mg/l

Non-volatile Components	Trade Secret	Activated sludge	Experimental	3 hours	NOEC	1,000 mg/l
Non-volatile Components	Trade Secret	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Non-volatile Components	Trade Secret	Water flea	Endpoint not reached	21 days	EL10	>100 mg/l
Cyclohexane	110-82-7	Bacteria	Experimental	24 hours	IC50	97 mg/l
Cyclohexane	110-82-7	Fathead minnow	Experimental	96 hours	LC50	4.53 mg/l
Cyclohexane	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
1,1-Difluoroethane	75-37-6	Bacteria	Estimated	6 hours	EC50	>472.57 mg/l
1,1-Difluoroethane	75-37-6	Rainbow trout	Estimated	96 hours	LC50	291.31 mg/l
1,1-Difluoroethane	75-37-6	Water flea	Estimated	48 hours	EC50	634.41 mg/l
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Green algae	Estimated	72 hours	EL50	>1,000 mg/l
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Bacteria	Experimental	5 hours	EL10	>2 ug/l
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Green Algae	Estimated	72 hours	NOEL	1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Crustacea other	Estimated	48 hours	LL50	>10,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	EL50	>1,000 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Rainbow trout	Estimated	96 hours	LL50	>88,444 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Distillates (petroleum), hydrotreated	64742-47-8	Green Algae	Estimated	72 hours	NOEL	1,000 mg/l

light						
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
Toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
Toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
Toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
Toluene	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
Toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
Toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
Toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
Toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)

## 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dimethyl Ether	115-10-6	Experimental Photolysis		Photolytic half-life (in air)	12.4 days (t 1/2)	Non-standard method
Dimethyl Ether	115-10-6	Experimental Biodegradation	28 days	BOD	5 % weight	OECD 301D - Closed bottle test
Methyl acetate	79-20-9	Experimental Biodegradation	28 days	BOD	70 % weight	OECD 301D - Closed bottle test
Non-volatile Components	Trade Secret	Experimental Biodegradation	28 days	BOD	4 % BOD/ThBOD	OECD 301D - Closed bottle test
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.14 days (t 1/2)	Non-standard method
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
1,1-Difluoroethane	75-37-6	Estimated Photolysis		Photolytic half-life (in air)	916 days (t 1/2)	Non-standard method
1,1-Difluoroethane	75-37-6	Estimated Biodegradation	28 days	BOD	3 % weight	OECD 301D - Closed bottle test
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Estimated Biodegradation	28 days	BOD	31 % BOD/ThBOD	OECD 301F - Manometric respirometry
Distillates (petroleum), hydrotreated light	64742-47-8	Estimated Biodegradation	28 days	BOD	22 % BOD/ThBOD	OECD 301F - Manometric respirometry
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater

## 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dimethyl Ether	115-10-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methyl acetate	79-20-9	Experimental Bioconcentration		Log Kow	0.18	Non-standard method
Non-volatile Components	Trade Secret	Experimental Bioconcentration		Log Kow	7.41	Non-standard method
Cyclohexane	110-82-7	Experimental BCF-Carp	56 days	Bioaccumulation factor	129	OECD 305E - Bioaccumulation flow-through fish test
1,1-Difluoroethane	75-37-6	Estimated Bioconcentration		Log Kow	1.13	Estimated: Octanol-water partition coefficient
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
Toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	

#### 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 uncured product in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility.

## SECTION 14: Transport Information

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

UN No.: UN1950

Proper shipping name: AEROSOLS

Class/Division: 2.1

Sub Risk: Not applicable.

Packing Group: Not applicable.

Special Instructions: Limited quantity may apply



**Hazchem Code:** 2YE

**IERG:** 49

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

**UN No.:** UN1950

**Proper shipping name:** AEROSOLS, FLAMMABLE

**Class/Division:** 2.1

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

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

**UN No.:** UN1950

**Proper shipping name:** AEROSOLS

**Class/Division:** 2.1

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**Marine Pollutant:** Not applicable.

**Special Instructions:** Limited quantity may apply

## 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 is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

## SECTION 16: Other information

**Revision information:**

Complete document review.

**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 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)**