# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 36-3452-4 | **Version number:** | 4.00 |
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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™ VHB™ Tape Universal Primer UV

**Product Identification Numbers**
70-0075-0487-4 70-0075-0505-3 70-0075-0506-1 70-0075-0508-7

### 1.2. Recommended use and restrictions on use

**Recommended use**
Adhesion promoter.

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, 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 Liquid: Category 2.
Skin Corrosion/Irritation: Category 2.
Serious Eye Damage/Irritation: Category 2.
Skin Sensitizer: Category 1A.
Specific Target Organ Toxicity (single exposure): Category 3
Specific Target Organ Toxicity (single exposure): Category 3

Aspiration Hazard: Category 1.

**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 |Health Hazard |

**Pictograms**

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H336 | May cause drowsiness or dizziness. |
| H335 | May cause respiratory irritation. |
| H304 | May be fatal if swallowed and enters airways. |

**Precautionary statements**

**Prevention:**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof electrical, ventilating and lighting equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P264 | Wash thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |

**Response:**

| | |
|---|---|
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| 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. |
| P312 | Call a POISON CENTRE or doctor/physician if you feel unwell. |
| P331 | Do NOT induce vomiting. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337 + P313 | IF eye irritation persists: Get medical advice/attention. |

| | |
|---|---|
| P362 + P364 | Take off contaminated clothing and wash it before reuse. |
| P370 + P378 | In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish. |

**Storage:**

| | |
|---|---|
| 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**
May be harmful if inhaled.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Weight |
|---|---|---|
| Heptane, branched, cyclic and linear | 426260-76-6 | 40 - 60 |
| Methyl Acetate | 79-20-9 | 30 - 50 |
| Non-Volatile Polymeric Components | Trade Secret | 1 - 6 |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | < 2 |
| Dimethylcyclopentane | 2532-58-3 | < 2 |
| Maleic anhydride | 108-31-6 | < 0.1 |

## 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**
Do not induce vomiting. Get immediate 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). Allergic skin reaction (redness, swelling, blistering, and itching). Aspiration pneumonitis (coughing, gasping, choking, burning of the mouth, and difficulty breathing). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable.

## SECTION 5: Fire-fighting measures

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

**5.2. Special hazards arising from the substance or mixture**
Closed containers exposed to heat from fire may build pressure and explode.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |

**5.3. Special protective actions for fire-fighters**
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**Hazchem Code:** •3YE

## 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 that is resistant to polar solvents. 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**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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 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 |
|---|---|---|---|---|
| Maleic anhydride | 108-31-6 | ACGIH | TWA(inhalable fraction and vapor):0.01 mg/m3 | A4: Not class. as human carcin, Dermal/Respiratory Sensitizer |
| Maleic anhydride | 108-31-6 | Australia OELs | TWA(8 hours): 1 mg/m3 (0.25 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/m3(200 ppm);STEL(15 minutes):757 mg/m3(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**
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:
Safety glasses with side shields.
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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

if this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - 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 and particulates

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. |
| **Specific Physical Form:** | Liquid. |
| **Colour** | Colorless |
| **Odour** | Solvent |
| **Odour threshold** | *No data available.* |
| **pH** | 4.4 |
| **Melting point/Freezing point** | *Not applicable.* |
| **Boiling point/Initial boiling point/Boiling range** | 61.9 ºC [@ 101,324.72 Pa ] |
| **Flash point** | -10 ºC [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No data available.* |
| **Flammability (solid, gas)** | Not applicable. |
| **Flammable Limits(LEL)** | 1.2 % [*Details:*Heptane] |
| **Flammable Limits(UEL)** | 16 % [*Details:*Methyl Acetate] |
| **Vapour pressure** | 20,318.3 Pa [@ 20 ºC ] |
| **Vapor Density and/or Relative Vapor Density** | *No data available.* |
| **Density** | 0.77 g/ml [@ 23 ºC ] |
| **Relative density** | 0.77 [@ 23 ºC ] [*Ref Std:*WATER=1] |
| **Water solubility** | 23 % [@ 23 ºC] |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **Viscosity/Kinematic Viscosity** | 1.9 mPa-s [@ 23.5 ºC ] |
| **Volatile organic compounds (VOC)** | 429 g/l [*Test Method:*calculated SCAQMD rule 443.1] |
| **Percent volatile** | <=96 % weight [*Test Method:*Estimated] |
| **VOC less H2O & exempt solvents** | 700 g/l [*Test Method:*calculated SCAQMD rule 443.1] |

| | |
|---|---|
| **Molecular weight** | *Not applicable.* |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

**10.2 Chemical stability**
Stable.

**10.3. 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.

**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**
May be harmful if inhaled. 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**
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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

**Ingestion**
Chemical (aspiration) pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish coloured skin (cyanosis), and may be fatal. 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.

**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 >20 - =50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Heptane, branched, cyclic and linear | Dermal | Rabbit | LD50 > 2,920 mg/kg |
| Heptane, branched, cyclic and linear | Inhalation-Vapour (4 hours) | Rat | LC50 > 23.3 mg/l |
| Heptane, branched, cyclic and linear | Ingestion | Rat | LD50 > 5,840 mg/kg |
| 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 |
| Citric Acid, Tributyl Ester, Acetate | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Citric Acid, Tributyl Ester, Acetate | Ingestion | Rat | LD50 > 25,000 mg/kg |
| Dimethylcyclopentane | Ingestion | | LD50 estimated to be 300 - 2,000 mg/kg |
| Maleic anhydride | Dermal | Rabbit | LD50 2,620 mg/kg |
| Maleic anhydride | Ingestion | Rat | LD50 1,030 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Heptane, branched, cyclic and linear | Rabbit | Irritant |
| Methyl Acetate | Rabbit | No significant irritation |
| Maleic anhydride | Human and animal | Corrosive |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Heptane, branched, cyclic and linear | Rabbit | Mild irritant |
| Methyl Acetate | Rabbit | Moderate irritant |
| Maleic anhydride | Rabbit | Corrosive |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Heptane, branched, cyclic and linear | Guinea pig | Not classified |
| Methyl Acetate | Human | Not classified |
| Maleic anhydride | Multiple animal species | Sensitising |

**Respiratory Sensitisation**

| Name | Species | Value |
|---|---|---|

| | | |
|---|---|---|
| Maleic anhydride | Human | Sensitising |

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Heptane, branched, cyclic and linear | In Vitro | Not mutagenic |
| Methyl Acetate | In Vitro | Not mutagenic |
| Methyl Acetate | In vivo | Not mutagenic |
| Maleic anhydride | In vivo | Not mutagenic |
| Maleic anhydride | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

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

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Heptane, branched, cyclic and linear | Not specified. | Not classified for female reproduction | Rat | NOAEL Not available | 2 generation |
| Heptane, branched, cyclic and linear | Not specified. | Not classified for male reproduction | Rat | NOAEL Not available | 2 generation |
| Heptane, branched, cyclic and linear | Not specified. | Not classified for development | Rat | NOAEL Not available | 2 generation |
| Maleic anhydride | Ingestion | Not classified for female reproduction | Rat | NOAEL 55 mg/kg/day | 2 generation |
| Maleic anhydride | Ingestion | Not classified for male reproduction | Rat | NOAEL 55 mg/kg/day | 2 generation |
| Maleic anhydride | Ingestion | Not classified for development | Rat | NOAEL 140 mg/kg/day | during organogenesis |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Heptane, branched, cyclic and linear | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| 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 | |
| Maleic anhydride | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL Not available | |

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target | Value | Species | Test result | Exposure |
|---|---|---|---|---|---|---|

| | | Organ(s) | | | | Duration |
|---|---|---|---|---|---|---|
| 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 |
| Maleic anhydride | Inhalation | respiratory system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 0.0011 mg/l | 6 months |
| Maleic anhydride | Inhalation | endocrine system \| hematopoietic system \| nervous system \| kidney and/or bladder \| heart \| liver \| eyes | Not classified | Rat | NOAEL 0.0098 mg/l | 6 months |
| Maleic anhydride | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 55 mg/kg/day | 80 days |
| Maleic anhydride | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 250 mg/kg/day | 183 days |
| Maleic anhydride | Ingestion | heart \| nervous system | Not classified | Rat | NOAEL 600 mg/kg/day | 183 days |
| Maleic anhydride | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 150 mg/kg/day | 80 days |
| Maleic anhydride | Ingestion | hematopoietic system | Not classified | Dog | NOAEL 60 mg/kg/day | 90 days |
| Maleic anhydride | Ingestion | skin \| endocrine system \| immune system \| eyes \| respiratory system | Not classified | Rat | NOAEL 150 mg/kg/day | 80 days |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Heptane, branched, cyclic and linear | 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:**
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

| Material | CAS Number | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Heptane, branched, cyclic and linear | 426260-76-6 | Green algae | Estimated | 72 hours | EL50 | 29 mg/l |
| Heptane, branched, cyclic and linear | 426260-76-6 | Water flea | Estimated | 48 hours | EL50 | 3 mg/l |
| Heptane, branched, cyclic and linear | 426260-76-6 | Rainbow trout | Experimental | 96 hours | LL50 | >13.4 mg/l |
| Heptane, branched, cyclic and linear | 426260-76-6 | Green algae | Estimated | 72 hours | NOEL | 6.3 mg/l |
| Heptane, branched, cyclic and linear | 426260-76-6 | Water flea | Estimated | 21 days | NOEL | 1 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 | ErC50 | >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 Polymeric Components | Trade Secret | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Bluegill | Experimental | 96 hours | LC50 | 38 mg/l |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Green algae | Experimental | 72 hours | ErC50 | 74.4 mg/l |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Water flea | Experimental | 48 hours | EC50 | 7.82 mg/l |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Green algae | Experimental | 72 hours | NOEC | 4.65 mg/l |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Water flea | Experimental | 21 days | NOEC | >=1.11 mg/l |
| Dimethylcyclopentane | 2532-58-3 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Maleic anhydride | 108-31-6 | Bacteria | Experimental | 18 hours | EC10 | 44.6 mg/l |
| Maleic anhydride | 108-31-6 | Rainbow trout | Experimental | 96 hours | LC50 | 75 mg/l |
| Maleic anhydride | 108-31-6 | Green algae | Hydrolysis Product | 72 hours | ErC50 | 74.4 mg/l |
| Maleic anhydride | 108-31-6 | Water flea | Hydrolysis Product | 48 hours | EC50 | 93.8 mg/l |
| Maleic anhydride | 108-31-6 | Water flea | Experimental | 21 days | NOEC | 10 mg/l |
| Maleic anhydride | 108-31-6 | Green algae | Hydrolysis Product | 72 hours | ErC10 | 11.8 mg/l |

**12.2. Persistence and degradability**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Heptane, branched, cyclic and linear | 426260-76-6 | Estimated Biodegradation | 28 days | BOD | 98 %BOD/ThOD | OECD 301F - Manometric respirometry |
| Methyl Acetate | 79-20-9 | Experimental Biodegradation | 28 days | BOD | 70 %BOD/ThOD | OECD 301D - Closed bottle test |
| Non-Volatile Polymeric Components | Trade Secret | Data not available-insufficient | N/A | N/A | N/A | N/A |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Experimental Biodegradation | 28 days | BOD | 48 %BOD/ThOD | |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Experimental Aquatic Inherent Biodegrad. | | BOD | 82 %BOD/ThOD | OECD 302C - Modified MITI (II) |
| Dimethylcyclopentane | 2532-58-3 | Estimated Biodegradation | 28 days | CO2 evolution | 12 %CO2 evolution/THCO2 evolution | |
| Dimethylcyclopentane | 2532-58-3 | Estimated Photolysis | | Photolytic half-life (in air) | 4.36 days (t 1/2) | |
| Maleic anhydride | 108-31-6 | Hydrolysis Product Biodegradation | 25 days | CO2 evolution | >90 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| Maleic anhydride | 108-31-6 | Experimental Hydrolysis | | Hydrolytic half-life | 0.37 minutes (t 1/2) | |

**12.3 : Bioaccumulative potential**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Heptane, branched, cyclic and linear | 426260-76-6 | 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-Volatile Polymeric Components | Trade Secret | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Modeled Bioconcentration | | Bioaccumulation factor | 5.1 | Catalogic™ |
| Citric Acid, Tributyl Ester, Acetate | 77-90-7 | Experimental Bioconcentration | | Log Kow | 4.92 | |
| Dimethylcyclopentane | 2532-58-3 | Estimated Bioconcentration | | Bioaccumulation factor | 166 | |
| Maleic anhydride | 108-31-6 | Experimental Bioconcentration | | Log Kow | -2.61 | OECD 107 log Kow shke flsk mtd |

**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. 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.:** UN1993
**Proper shipping name:** FLAMMABLE LIQUID, N.O.S. , ( Heptane, Methyl Acetate )
**Class/Division:** 3
**Sub Risk:** Not applicable.
**Packing Group:** II
**Special Instructions:** Limited quantity may apply
**Hazchem Code:** •3YE
**IERG:** 14

**International Air Transport Association (IATA) - Air Transport**
**UN No.:** UN1993
**Proper shipping name:** FLAMMABLE LIQUID, N.O.S. , ( Heptane, Methyl Acetate )
**Class/Division:** 3
**Sub Risk:** Not applicable.
**Packing Group:** II

**International Maritime Dangerous Goods Code (IMDG)- Marine Transport**
**UN No.:** UN1993
**Proper shipping name:** FLAMMABLE LIQUID, N.O.S. , ( Heptane, Methyl Acetate )
**Class/Division:** 3
**Sub Risk:** Not applicable.
**Packing Group:** II
**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:**
An ingredient(s) in this product is being introduced under the no unreasonable risk non-cosmetic (<100 Kg) exemption provisions specified in Section 21(4) of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.
An ingredient(s) in this product is being introduced under a Certificate (Standard/Limited/Polymer of Low Concern) granted under Section 39 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**