



## 3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part A) #349-3124, 458-7315 (AUS)

### RS Components

Chemwatch Hazard Alert Code: 2

Chemwatch: 5415-06

Version No: 2.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Issue Date: 23/07/2020

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L.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

Product name	3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part A) #349-3124, 458-7315 (AUS)
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Structural adhesive.
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### Details of the supplier of the safety data sheet

Registered company name	RS Components
Address	25 Pavesi Street Smithfield NSW 2164 Australia
Telephone	+1 300 656 636
Fax	+1 300 656 696
Website	www.au.rs-online.com
Email	Not Available

### Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+61 1800 951 288
Other emergency telephone numbers	+61 2 9186 1132

Once connected and if the message is not in your preferred language then please dial 01

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS.** According to the WHS Regulations and the ADG Code.

### CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	1		
Toxicity	2		
Body Contact	2		
Reactivity	2		
Chronic	2		

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Acute Toxicity (Oral) Category 4, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Respiratory Sensitizer Category 1, Germ cell mutagenicity Category 2, Carcinogenicity Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Specific target organ toxicity - repeated exposure Category 2, Chronic Aquatic Hazard Category 4
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

### Label elements

Hazard pictogram(s)	
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SIGNAL WORD	<b>DANGER</b>
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**Hazard statement(s)**

<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H315</b>	Causes skin irritation.
<b>H318</b>	Causes serious eye damage.
<b>H317</b>	May cause an allergic skin reaction.
<b>H334</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>H341</b>	Suspected of causing genetic defects.
<b>H351</b>	Suspected of causing cancer.
<b>H335</b>	May cause respiratory irritation.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H413</b>	May cause long lasting harmful effects to aquatic life.

**Precautionary statement(s) Prevention**

<b>P201</b>	Obtain special instructions before use.
<b>P260</b>	Do not breathe mist/vapours/spray.
<b>P271</b>	Use in a well-ventilated area.
<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement(s) Response**

<b>P304+P340</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P308+P313</b>	IF exposed or concerned: Get medical advice/attention.
<b>P310</b>	Immediately call a POISON CENTER or doctor/physician.

**Precautionary statement(s) Storage**

<b>P405</b>	Store locked up.
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.

**Precautionary statement(s) Disposal**

<b>P501</b>	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
Not Available	30-60	polyester plasticiser, proprietary
64265-57-2	15-40	<u>trimethylolpropane tris(2-methyl-1-aziridine)propionate</u>
223674-50-8	<20	<u>hexaethyl(1,6-hexanediamine)diborane</u>
67762-90-7	0.5-1.5	<u>silica, dimethylsiloxane treated</u>
13463-67-7	0.1-1	<u>C.I. Pigment White 6</u>

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
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<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ <b>IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.</b></li> <li>▶ For advice, contact a Poisons Information Centre or a doctor.</li> <li>▶ Urgent hospital treatment is likely to be needed.</li> <li>▶ In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.</li> <li>▶ If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist.</li> <li>▶ If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.</li> </ul> <p><b>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:</b></p> <ul style="list-style-type: none"> <li>▶ <b>INDUCE</b> vomiting with fingers down the back of the throat, <b>ONLY IF CONSCIOUS</b>. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> </ul> <p><b>NOTE:</b> Wear a protective glove when inducing vomiting by mechanical means.</p>

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

- ▶ Water
- ▶ Foam
- ▶ Dry Chemical
- ▶ Do NOT use carbon dioxide

#### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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#### Advice for firefighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>) silicon dioxide (SiO<sub>2</sub>) metal oxides other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.</p>
<b>HAZCHEM</b>	Not Applicable

## SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

See section 8

#### Environmental precautions

See section 12

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

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> </ul>
<b>Major Spills</b>	<p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Most acrylic monomers have low viscosity therefore pouring, material transfer and processing of these materials do not necessitate heating.</li> <li>▶ Viscous monomers may require heating to facilitate handling. To facilitate product transfer from original containers, product must be heated to no more than 60 deg. C. (140 F.), for not more than 24 hours.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Consider storage under inert gas.</li> <li>▶ Polymerisation may occur slowly at room temperature.</li> <li>▶ Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.</li> <li>▶ <b>DO NOT overfill containers so as to maintain free head space above product.</b></li> <li>▶ Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabiliser.</li> <li>▶ Store below 38 deg. C.</li> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> </ul>

### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Polymerisation may occur slowly at room temperature.</li> <li>▶ Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.</li> <li>▶ <b>DO NOT overfill containers so as to maintain free head space above product.</b></li> <li>▶ Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabiliser.</li> <li>▶ Store below 38 deg. C.</li> <li>▶ Reacts vigorously with acids</li> <li>▶ Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous</li> <li>▶ Segregate from alcohol, water.</li> </ul> <p>for multifunctional acrylates:</p> <ul style="list-style-type: none"> <li>▶ Avoid exposure to free radical initiators (peroxides, persulfates), iron, rust, oxidisers, and strong acids and strong bases.</li> <li>▶ Avoid heat, flame, sunlight, X-rays or ultra-violet radiation.</li> <li>▶ Storage beyond expiration date, may initiate polymerisation. Polymerisation of large quantities may be violent (even explosive)</li> <li>▶ Avoid strong acids, bases.</li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	C.I. Pigment White 6	Titanium dioxide	10 mg/m3	Not Available	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
silica, dimethylsiloxane treated	Siloxanes and silicones, dimethyl, reaction products with silica; (Hydrophobic silicon dioxide, amorphous)	120 mg/m3	1,300 mg/m3	7,900 mg/m3
C.I. Pigment White 6	Titanium oxide; (Titanium dioxide)	30 mg/m3	330 mg/m3	2,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
trimethylolpropane tris(2-methyl-1-aziridine)propionate	Not Available	Not Available
hexaethyl(1,6-hexanediamine)diborane	Not Available	Not Available
silica, dimethylsiloxane treated	Not Available	Not Available
C.I. Pigment White 6	5,000 mg/m3	Not Available


#### OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimethylolpropane tris(2-methyl-1-aziridine)propionate	E	≤ 0.1 ppm
hexaethyl(1,6-hexanediamine)diborane	E	≤ 0.1 ppm

**Notes:**

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

**MATERIAL DATA****Exposure controls**

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>						
<b>Personal protection</b>							
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>						
<b>Skin protection</b>	See Hand protection below						
<b>Hands/feet protection</b>	<p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p> <p>General warning: Do NOT use latex gloves! Use only recommended gloves - using the wrong gloves may increase the risk:</p> <table border="1"> <tr> <td><b>Exposure condition</b> Short time use; (few minutes less than 0.5 hour) Little physical stress</td> <td>Use of thin nitrile rubber gloves: Nitrile rubber (0.1 mm) Excellent tactility ("feel"), powder-free Disposable Inexpensive Give adequate protection to low molecular weight acrylic monomers</td> </tr> <tr> <td><b>Exposure condition</b> Medium time use; less than 4 hours Physical stress (opening drums, using tools, etc.)</td> <td>Use of medium thick nitrile rubber gloves Nitrile rubber, NRL (latex) free; &lt;0.45 mm Moderate tactility ("feel"), powder-free Disposable Moderate price Gives adequate protection for most acrylates up to 4 hours Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour</td> </tr> <tr> <td><b>Exposure condition</b> Long time Cleaning operations</td> <td>Nitrile rubber, NRL (latex) free; &gt;0.56 mm low tactility ("feel"), powder free High price Gives adequate protection for most acrylates in combination with commonly used solvents up to 8 hours Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour Avoid use of ketones and acetates in wash-up solutions.</td> </tr> </table> <p>Where none of this gloves ensure safe handling (for example in long term handling of acrylates containing high levels of acetates and/ or ketones, use laminated multilayer gloves.</p> <p>Guide to the Classification and Labelling of UV/EB Acrylates Third edition, 231 October 2007 - Cefic</p> <ul style="list-style-type: none"> <li>▶ Neoprene rubber gloves</li> </ul>	<b>Exposure condition</b> Short time use; (few minutes less than 0.5 hour) Little physical stress	Use of thin nitrile rubber gloves: Nitrile rubber (0.1 mm) Excellent tactility ("feel"), powder-free Disposable Inexpensive Give adequate protection to low molecular weight acrylic monomers	<b>Exposure condition</b> Medium time use; less than 4 hours Physical stress (opening drums, using tools, etc.)	Use of medium thick nitrile rubber gloves Nitrile rubber, NRL (latex) free; <0.45 mm Moderate tactility ("feel"), powder-free Disposable Moderate price Gives adequate protection for most acrylates up to 4 hours Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour	<b>Exposure condition</b> Long time Cleaning operations	Nitrile rubber, NRL (latex) free; >0.56 mm low tactility ("feel"), powder free High price Gives adequate protection for most acrylates in combination with commonly used solvents up to 8 hours Do NOT give adequate protection to low molecular weight monomers at exposures longer than 1 hour Avoid use of ketones and acetates in wash-up solutions.
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<b>Body protection</b>	See Other protection below						
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> </ul>						

**Respiratory protection**

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AK-AUS / Class 1 P2	-
up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G =

Continued...

Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
  - ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
  - ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used
- Avoid inhalation.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	White pasty liquid with mild odour; partially mixes with water.		
<b>Physical state</b>	Free-flowing Paste	<b>Relative density (Water = 1)</b>	1.05-1.09
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	32710.28-60747.66 @23C
<b>Initial boiling point and boiling range (°C)</b>	>181 @758mmHg	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	>93.3 (CC)	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Negligible	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Partly miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

<b>Inhaled</b>	<p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.</p> <p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.</p> <p>No report of respiratory illness in humans as a result of exposure to multifunctional acrylates has been found. Similarly evidence of systemic damage does not appear to exist.</p> <p>Inhalation hazard is increased at higher temperatures.</p>
<b>Ingestion</b>	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
<b>Skin Contact</b>	<p>The material produces severe skin irritation; evidence exists, or practical experience predicts, that the material either:</p> <ul style="list-style-type: none"> <li>▶ produces severe inflammation of the skin in a substantial number of individuals following direct contact, and/or</li> <li>▶ produces significant and severe inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.</li> <li>▶ Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.</li> </ul> <p>All multifunctional acrylates (MFA) produce skin discomfort and are known or suspected skin sensitisers. Aerosols generated in the industrial</p>

	<p>process are reported to produce dermatitis - vapours generated by the heat of milling may also occur in sufficient concentration to produce dermatitis. Because exposure to industrial aerosols of MFA may also include exposure to various resin systems, photo-initiators, solvents, hydrogen-transfer agents, stabilisers, surfactants, fillers and polymerisation inhibitors, toxic effects may arise due to a range of chemical actions. Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
<b>Eye</b>	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
<b>Chronic</b>	<p>On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.</p> <p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Practical evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a substantial number of individuals at a greater frequency than would be expected from the response of a normal population.</p> <p>Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking.</p> <p>Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.</p> <p>Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. As a rule the material produces, or contains a substance which produces severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests.</p>

<b>3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part A) #349-3124, 458-7315 (AUS)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (None) LD50: >300 mg/kg <sup>[2]</sup>	Not Available
<b>trimethylolpropane tris(2-methyl-1-aziridine)propionate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 3038 mg/kg <sup>[2]</sup>	Eye (rabbit): SEVERE corrosive Skin (rabbit): SEVERE abraded skin
<b>hexaethyl(1,6-hexanediamine)diborane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>silica, dimethylsiloxane treated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: >5000 mg/kg <sup>[2]</sup>	Eyes: 0.7/110 24hr Draize non-irritating Skin: 0/8 non-irritating
<b>C.I. Pigment White 6</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (hamster) LD50: >=10000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Skin (rabbit) Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

<b>TRIMETHYLOLPROPANE TRIS(2-METHYL-1-AZIRIDINE)PROPIONATE</b>	<p>Data for EC Number 939-180-9 Acute inhalation: Exposed rats showed several clinical signs (piloerection, lung effects, limbness etc.). Animals exposed to the test substance showed hypothermic reactions shortly after exposure and weight gain was negatively affected in surviving animals (statistically significant). Animals succumbed during the course of the study showed red encrustations and discharge of clear liquid from the nose, lung less collapsed, dark-red areas, trachea with foamy content. Animals sacrificed at the end of the observation period displayed a somewhat increased incidence of macroscopic findings in the lung. Irritation Skin: In an acute dermal irritation/ corrosion study two batches of the test substance were applied to shaven skin of rabbits. The substances were kept on the skin for 4 hours (occlusive) and washed of with lukewarm water and soap. In the observation period (1h, 24, 48, 72 hours after wash, total observation period = 1 week), no edema was observed in any of the rabbits. Two of the three rabbits showed very slight erythema (barely perceptible) starting one hour after wash until 72 hours after wash, that was reversible within 1 week. Eye irritation study: An eye irritation study according to current OECD/EC guidelines was conducted in compliance with GLP principles. In this study, 6 rabbits (3 males and 3 females) showed severe effects on the eyes the first 72 hours after treatment, which did not reverse after one week. In parallel, three females were treated with the substance, which was removed from the eye after 30s by rinsing. The effects to the eyes of these animals were comparable to the eyes of the unrinsed group. Sensitisation: The substance elicits at a concentration of 0.25% an SI = 3 in an LLNA test, this substance is classified according to CLP Regulation (EC) No. 1272/2008 as skin sensitizer (Category 1A) and labeled as H317 "May cause an allergic skin Repeat dose toxicity: In the 28 -day oral repeated dose study effects were found at 100 mg/kg bw/day which were also considered significant and severe. The dose level fits within the guidance range values as described in table 3.9.3 of the CLP Regulation and adjusted for a 28 -day study. In addition, the microscopic findings in the kidneys together with increasing necrosis up to 300 mg/kg bw/d and mortality at this dose level are effects considered to be significant and adverse and support thus classification according to the CLP Regulation (EC) No 1272/2008 as STOT-RE Cat. 2, H373 May cause damage to organs through prolonged or repeated exposure reaction". Genetic toxicity: In vitro Ames tests are all positive. In addition, in vivo micronucleus studies are present instead of an in vitro chromosome aberration test, showing different outcomes. The substance is self classified as Muta Cat.2, H341 Suspected of causing genetic defects according to the CLP Regulation (EC) No. 1272/2008,</p> <p>Exposure to the material may result in a possible risk of irreversible effects. The material may produce mutagenic effects in man. This concern is raised, generally, on the basis of appropriate studies using mammalian somatic cells in vivo. Such findings are often supported by positive results from in vitro mutagenicity studies.</p> <p>UV (ultraviolet)/ EB (electron beam) acrylates are generally of low toxicity</p> <p>UV/EB acrylates are divided into two groups; "stenomeric" and "eurymeric" acrylates.</p> <p>The first group consists of well-defined acrylates which can be described by a simple idealised chemical; they are low molecular weight species with a very narrow weight distribution profile.</p>
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	<p>The eurymeric acrylates cannot be described by an idealised structure and may differ fundamentally between various suppliers; they are of relatively high molecular weight and possess a wide weight distribution.</p> <p>Stenomeric acrylates are usually more hazardous than the eurymeric substances. Stenomeric acrylates are also well defined which allows comparison and exchange of toxicity data - this allows more accurate classification.</p> <p>The stenomerics cannot be classified as a group; they exhibit substantial variation.</p> <p>Polyethylenimine (polyaziridine) has a number of uses in laboratory biology, especially tissue culture, but is also toxic to cells if used in excess. Toxicity is by two different mechanisms,[14] the disruption of the cell membrane leading to necrotic cell death (immediate) and disruption of the mitochondrial membrane after internalisation leading to apoptosis (delayed).</p> <p>Polyfunctional aziridine (PFA) is increasingly used as a water-based crosslinker in two-component paints, paint primers, lacquers, topcoats and other protective coatings. The crosslinker is made by reacting multifunctional acrylic monomer with a highly reactive aziridine compound.</p> <p>Skin sensitivity to PFA prick tests was demonstrated in 8.3% of the exposed population; 22.2% of the exposed workers suffered from allergic contact dermatitis due to PFA with positive patch tests for this compound.</p> <p>As cationic polymers possess unique physical structures and surface properties, various kinds of cationic polymers have been developed over the past few decades for a wide spectrum of nanomedical applications in the central nervous system (CNS). Although cationic polymers could be successfully used for gene transfer, drug delivery, and diagnostic imaging, after entering into the CNS, they may cause neurotoxicity and induce CNS damage, which seriously limits their applications. The neurotoxic effects of cationic polymers on CNS are mostly studied in mice, and have not been examined in detail.</p> <p>While evaluating the neurotoxicity of cationic polymers, the surface charge, surface area, coating, size, shape, and the basic materials that cationic polymers are made up of are expected to show important roles, and should be carefully considered. Apoptosis, necrosis, autophagy, oxidative stress, inflammation, and inflammasome; which are expected to be the most important problems in the evaluation of cationic polymer-induced neurotoxicity.</p> <p>Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (<math>\text{CH}_2=\text{CHCOO}</math> or <math>\text{CH}_2=\text{C}(\text{CH}_3)\text{COO}</math>) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing.</p> <p>This position has now been revised and acrylates and methacrylates are no longer <i>de facto</i> carcinogens.</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.</p> <p>Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Prolonged contact is unlikely, given the severity of response, but repeated exposures may produce severe ulceration.</p> <p>Where no "official" classification for acrylates and methacrylates exists, there has been cautious attempts to create classifications in the absence of contrary evidence. For example</p> <p>Monoalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53</p> <p>Monoalkyl or monoaryl esters of methacrylic acid should be classified as R36/37/38</p>
<b>HEXAETHYL(1,6-HEXANEDIAMINE)DIBORANE</b>	<p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. No significant acute toxicological data identified in literature search.</p>
<b>SILICA, DIMETHYLSILOXANE TREATED</b>	<p>For silica amorphous:</p> <p>Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d.</p> <p>In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS. Repeated exposure (without personal protection) may cause mechanical irritation of the eye and drying/cracking of the skin.</p> <p>When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body.</p>
<b>C.I. PIGMENT WHITE 6</b>	<p>For titanium dioxide:</p> <p>Humans can be exposed to titanium dioxide via inhalation, ingestion or dermal contact. In human lungs, the clearance kinetics of titanium dioxide is poorly characterized relative to that in experimental animals. (General particle characteristics and host factors that are considered to affect deposition and retention patterns of inhaled, poorly soluble particles such as titanium dioxide are summarized in the monograph on carbon black.) With regard to inhaled titanium dioxide, human data are mainly available from case reports that showed deposits of titanium dioxide in lung tissue as well as in lymph nodes. A single clinical study of oral ingestion of fine titanium dioxide showed particle size-dependent absorption by the gastrointestinal tract and large interindividual variations in blood levels of titanium dioxide.</p> <p>The substance is classified by IARC as Group 3:</p> <p><b>NOT</b> classifiable as to its carcinogenicity to humans.</p> <p>Evidence of carcinogenicity may be inadequate or limited in animal testing.</p> <p>Substance has been investigated as a mutagen, tumorigen and primary irritant.</p>

<b>Acute Toxicity</b>	✓	<b>Carcinogenicity</b>	✓
<b>Skin Irritation/Corrosion</b>	✓	<b>Reproductivity</b>	✗
<b>Serious Eye Damage/Irritation</b>	✓	<b>STOT - Single Exposure</b>	✓
<b>Respiratory or Skin sensitisation</b>	✓	<b>STOT - Repeated Exposure</b>	✓
<b>Mutagenicity</b>	✓	<b>Aspiration Hazard</b>	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part A) #349-3124, 458-7315 (AUS)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

trimethylolpropane tris(2-methyl-1-aziridine)propionate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE



	Not Available	Not Available	Not Available	Not Available	Not Available
hexaethyl(1,6-hexanediamine)diborane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
silica, dimethylsiloxane treated	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
C.I. Pigment White 6	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>1-mg/L	2
	EC50	48	Crustacea	>1-mg/L	2
	EC50	72	Algae or other aquatic plants	5.83mg/L	4
	NOEC	336	Fish	0.089mg/L	4
<b>Legend:</b>	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

May cause long-term adverse effects in the aquatic environment.

**DO NOT** discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
C.I. Pigment White 6	HIGH	HIGH

#### Bioaccumulative potential

Ingredient	Bioaccumulation
C.I. Pigment White 6	LOW (BCF = 10)

#### Mobility in soil

Ingredient	Mobility
C.I. Pigment White 6	LOW (KOC = 23.74)

## SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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## SECTION 14 TRANSPORT INFORMATION

#### Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 REGULATORY INFORMATION

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

TRIMETHYLOLPROPANE TRIS(2-METHYL-1-AZIRIDINE)PROPIONATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

**HEXAETHYL(1,6-HEXANEDIAMINE)DIBORANE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**SILICA, DIMETHYLSILOXANE TREATED IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

**C.I. PIGMENT WHITE 6 IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B : Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

**National Inventory Status**

National Inventory	Status
Australia - AICS	No (hexaethyl(1,6-hexanediamine)diborane)
Canada - DSL	No (hexaethyl(1,6-hexanediamine)diborane)
Canada - NDSL	No (trimethylolpropane tris(2-methyl-1-aziridine)propionate; hexaethyl(1,6-hexanediamine)diborane; silica, dimethylsiloxane treated; C.I. Pigment White 6)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (hexaethyl(1,6-hexanediamine)diborane; silica, dimethylsiloxane treated)
Japan - ENCS	No (trimethylolpropane tris(2-methyl-1-aziridine)propionate; hexaethyl(1,6-hexanediamine)diborane; silica, dimethylsiloxane treated)
Korea - KECI	No (hexaethyl(1,6-hexanediamine)diborane)
New Zealand - NZIoC	Yes
Philippines - PICCS	No (trimethylolpropane tris(2-methyl-1-aziridine)propionate; hexaethyl(1,6-hexanediamine)diborane)
USA - TSCA	No (hexaethyl(1,6-hexanediamine)diborane)
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimethylolpropane tris(2-methyl-1-aziridine)propionate; hexaethyl(1,6-hexanediamine)diborane)
Vietnam - NCI	No (hexaethyl(1,6-hexanediamine)diborane)
Russia - ARIPS	No (hexaethyl(1,6-hexanediamine)diborane; silica, dimethylsiloxane treated)
<b>Legend:</b>	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION**

<b>Revision Date</b>	23/07/2020
<b>Initial Date</b>	23/07/2020

**SDS Version Summary**

Version	Issue Date	Sections Updated
2.1.1.1	23/07/2020	Appearance, Physical Properties, Use

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

PC—TWA: Permissible Concentration-Time Weighted Average  
 PC—STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 STEL: Short Term Exposure Limit  
 TEEL: Temporary Emergency Exposure Limit.  
 IDLH: Immediately Dangerous to Life or Health Concentrations  
 OSF: Odour Safety Factor  
 NOAEL :No Observed Adverse Effect Level  
 LOAEL: Lowest Observed Adverse Effect Level  
 TLV: Threshold Limit Value  
 LOD: Limit Of Detection  
 OTV: Odour Threshold Value  
 BCF: BioConcentration Factors  
 BEI: Biological Exposure Index

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TEL (+61 3) 9572 4700.



## 3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part B) #349-3124, 458-7315 (AUS)

### RS Components

Chemwatch: 5415-08  
Version No: 2.1.1.1  
Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 23/07/2020  
Print Date: 24/07/2020  
L.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

Product name	3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part B) #349-3124, 458-7315 (AUS)
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Structural adhesive.
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### Details of the supplier of the safety data sheet

Registered company name	RS Components
Address	25 Pavesi Street Smithfield NSW 2164 Australia
Telephone	+1 300 656 636
Fax	+1 300 656 696
Website	www.au.rs-online.com
Email	Not Available

### Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+61 1800 951 288
Other emergency telephone numbers	+61 2 9186 1132

Once connected and if the message is not in your preferred language then please dial 01

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS.** According to the WHS Regulations and the ADG Code.

### CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	1	1	0 = Minimum
Toxicity	2	2	1 = Low
Body Contact	2	2	2 = Moderate
Reactivity	1	1	3 = High
Chronic	4	4	4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Reproductive Toxicity Category 1B, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

### Label elements

Hazard pictogram(s)	
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SIGNAL WORD	<b>DANGER</b>
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**Hazard statement(s)**

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statement(s) Prevention**

P201	Obtain special instructions before use.
P271	Use in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing mist/vapours/spray.

**Precautionary statement(s) Response**

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.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see advice on this label).

**Precautionary statement(s) Storage**

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

**Precautionary statement(s) Disposal**

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
2455-24-5	30-70	<u>tetrahydrofurfuryl methacrylate</u>
Not Available	10-30	acrylate polymer, proprietary
688-84-6	<20	<u>2-ethylhexyl methacrylate</u>
21282-97-3	1-15	<u>2-(methacryloyloxy)ethyl acetoacetate</u>
20882-04-6	<10	<u>2-methacryloyloxyethyl succinate</u>
93924-19-7	1-5	<u>cenospheres, hollow ceramic microspheres</u>
108-30-5	<1	<u>succinic anhydride</u>
868-77-9	<1	<u>2-hydroxyethyl methacrylate</u>

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul>

<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ If swallowed do <b>NOT</b> induce vomiting.</li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul>
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**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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**Advice for firefighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>) other pyrolysis products typical of burning organic material. May emit clouds of acrid smoke May emit poisonous fumes. May emit corrosive fumes.</p>
<b>HAZCHEM</b>	Not Applicable

**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ Wear impervious gloves and safety goggles.</li> <li>▶ Trowel up/scrape up.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE****Precautions for safe handling**

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Most acrylic monomers have low viscosity therefore pouring, material transfer and processing of these materials do not necessitate heating.</li> <li>▶ Viscous monomers may require heating to facilitate handling. To facilitate product transfer from original containers, product must be heated to no more than 60 deg. C. (140 F.), for not more than 24 hours.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Polymerisation may occur slowly at room temperature.</li> <li>▶ Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.</li> <li>▶ <b>DO NOT overfill containers so as to maintain free head space above product.</b></li> <li>▶ Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabiliser.</li> <li>▶ Store below 38 deg. C.</li> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> </ul>

- ▶ Store in a cool, dry, well-ventilated area.

#### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Stable under controlled storage conditions provided material contains adequate stabiliser / polymerisation inhibitor.</li> <li>▶ Bulk storages may have special storage requirements</li> <li>▶ <b>WARNING:</b> Gradual decomposition in strong, sealed containers may lead to a large pressure build-up and subsequent explosion. Rapid and violent polymerisation possible at temperatures above 32 deg c.</li> </ul> <p>For acrylic and methacrylic acid esters:</p> <ul style="list-style-type: none"> <li>-Avoid contact with strong acids, strong alkalies, oxidising agents, polymerisation initiators (peroxides, persulfates), iron or rust</li> <li>-Avoid heat, flame, sunlight, x-rays or ultra-violet radiation.</li> <li>-Polymerisation may occur at elevated temperature and in presence of ignition sources - polymerisation of large quantities may be violent (even explosive)</li> <li>-In order to prevent polymerization, acrylates and methacrylates must always be stored under air, and never under inert gases. The presence of oxygen is required for the stabilizer (inhibitor) to function effectively. The storage temperature must not exceed 35 deg C. Under these conditions, a storage stability of one year can be expected.</li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Not Available

#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
succinic anhydride	Succinic anhydride	4.5 mg/m3	50 mg/m3	300 mg/m3
2-hydroxyethyl methacrylate	Hydroxyethyl methacrylate, 2-	1.9 mg/m3	21 mg/m3	1,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
tetrahydrofurfuryl methacrylate	Not Available	Not Available
2-ethylhexyl methacrylate	Not Available	Not Available
2-(methacryloyloxy)ethyl acetoacetate	Not Available	Not Available
2-methacryloyloxyethyl succinate	Not Available	Not Available
cenospheres, hollow ceramic microspheres	Not Available	Not Available
succinic anhydride	Not Available	Not Available
2-hydroxyethyl methacrylate	Not Available	Not Available

#### OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
tetrahydrofurfuryl methacrylate	E	≤ 0.1 ppm
2-ethylhexyl methacrylate	E	≤ 0.1 ppm
2-(methacryloyloxy)ethyl acetoacetate	E	≤ 0.1 ppm
2-methacryloyloxyethyl succinate	E	≤ 0.1 ppm
cenospheres, hollow ceramic microspheres	E	≤ 0.01 mg/m <sup>3</sup>
succinic anhydride	E	≤ 0.01 mg/m <sup>3</sup>
2-hydroxyethyl methacrylate	E	≤ 0.1 ppm

#### Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

#### MATERIAL DATA


NOTE D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed on Annex I

When they are placed on the market in a non-stabilised form, the label must state the name of the substance followed by the words "non-stabilised"

European Union (EU) List of harmonised classification and labelling hazardous substances, Table 3.1, Annex VI, Regulation (EC) No 1272/2008 (CLP) - up to the latest ATP

#### Exposure controls

<b>Appropriate engineering controls</b>	<p><b>CARE:</b> Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear</p> <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <ul style="list-style-type: none"> <li>Process controls which involve changing the way a job activity or process is done to reduce the risk.</li> <li>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</li> </ul>
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<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> </ul>

### Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
  - ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
  - ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used
- Avoid inhalation.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	Off-white pasty liquid with acrylic odour.		
<b>Physical state</b>	Free-flowing Paste	<b>Relative density (Water = 1)</b>	0.96-1
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Applicable	<b>Viscosity (cSt)</b>	17346.94-36734.69
<b>Initial boiling point and boiling range (°C)</b>	*>110 (2-ethylhexyl methacrylate)	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	*>94 (2-ethylhexyl methacrylate)	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	1
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Not Available	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available



**SECTION 10 STABILITY AND REACTIVITY**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Stable under controlled storage conditions provided material contains adequate stabiliser / polymerisation inhibitor.</li> <li>▶ Bulk storages may have special storage requirements</li> <li>▶ <b>WARNING:</b> Gradual decomposition in strong, sealed containers may lead to a large pressure build-up and subsequent explosion. Rapid and violent polymerisation possible at temperatures above 32 deg c.</li> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

<b>Inhaled</b>	<p>Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.</p> <p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.</p> <p>Inhalation hazard is increased at higher temperatures.</p> <p>Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea.</p>
<b>Ingestion</b>	Accidental ingestion of the material may be damaging to the health of the individual.
<b>Skin Contact</b>	<p>Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
<b>Eye</b>	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
<b>Chronic</b>	<p>Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.</p> <p>There is sufficient evidence to establish a causal relationship between human exposure to the material and impaired fertility</p> <p>There is sufficient evidence to establish a causal relationship between human exposure to the material and subsequent developmental toxic effects in the off-spring.</p> <p>Exposure to the material may cause concerns for humans owing to possible developmental toxic effects, generally on the basis that results in appropriate animal studies provide strong suspicion of developmental toxicity in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of other toxic effects.</p> <p>Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.</p> <p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p>

<b>3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part B) #349-3124, 458-7315 (AUS)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (None) LD50: >2000 mg/kg <sup>[2]</sup>	Not Available
<b>tetrahydrofurfuryl methacrylate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	<p>Eye: no adverse effect observed (not irritating)<sup>[1]</sup></p> <p>Skin: no adverse effect observed (not irritating)<sup>[1]</sup></p>
<b>2-ethylhexyl methacrylate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	<p>Eye: adverse effect observed (irritating)<sup>[1]</sup></p> <p>Skin: no adverse effect observed (not irritating)<sup>[1]</sup></p>
<b>2-(methacryloyloxy)ethyl acetoacetate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	<p>dermal (rat) LD50: &gt;2000 mg/kg<sup>[1]</sup></p> <p>Oral (rat) LD50: &gt;5000 mg/kg<sup>[2]</sup></p>	<p>Eye: no adverse effect observed (not irritating)<sup>[1]</sup></p> <p>Skin: no adverse effect observed (not irritating)<sup>[1]</sup></p>

2-methacryloyloxyethyl succinate	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available
cenospheres, hollow ceramic microspheres	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available
succinic anhydride	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 0.75 mg - SEVERE
	Oral (rat) LD50: 1510 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> Skin: adverse effect observed (irritating) <sup>[1]</sup>
2-hydroxyethyl methacrylate	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >3000 mg/kg <sup>[2]</sup>	Eye (rabbit): SEVERE *
	Oral (rat) LD50: 5050 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin (rabbit): non-irritating* Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

2-(METHACRYLOYLOXY)ETHYL ACETOACETATE	* ECEM reference
SUCCINIC ANHYDRIDE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
2-HYDROXYETHYL METHACRYLATE	Dermal (rabbit): >5000 mg/kg* Effects persist beyond 21 days
TETRAHYDROFURFURYL METHACRYLATE & 2-ETHYLHEXYL METHACRYLATE & 2-(METHACRYLOYLOXY)ETHYL ACETOACETATE & 2-METHACRYLOYLOXYETHYL SUCCINATE & SUCCINIC ANHYDRIDE & 2-HYDROXYETHYL METHACRYLATE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important.  Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.
TETRAHYDROFURFURYL METHACRYLATE & 2-ETHYLHEXYL METHACRYLATE & 2-(METHACRYLOYLOXY)ETHYL ACETOACETATE & 2-METHACRYLOYLOXYETHYL SUCCINATE & 2-HYDROXYETHYL METHACRYLATE	Where no "official" classification for acrylates and methacrylates exists, there has been cautious attempts to create classifications in the absence of contrary evidence. For example Monoalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53 Monoalkyl or monoaryl esters of methacrylic acid should be classified as R36/37/38
TETRAHYDROFURFURYL METHACRYLATE & CENOSPHERES, HOLLOW CERAMIC MICROSPHERES	No significant acute toxicological data identified in literature search.
TETRAHYDROFURFURYL METHACRYLATE & 2-ETHYLHEXYL METHACRYLATE & 2-(METHACRYLOYLOXY)ETHYL ACETOACETATE & 2-HYDROXYETHYL METHACRYLATE	Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (CH <sub>2</sub> =CHCOO or CH <sub>2</sub> =C(CH <sub>3</sub> )COO) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing. This position has now been revised and acrylates and methacrylates are no longer <i>de facto</i> carcinogens.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

3M Scotch-Weld Acrylic Structural Adhesive DP-8005 (Part B) #349-3124, 458-7315 (AUS)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
		Not Available	Not Available	Not Available	Not Available
tetrahydrofurfuryl methacrylate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	31.332mg/L	3
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	EC10	504	Crustacea	38.8mg/L	2
	NOEC	504	Crustacea	37.2mg/L	2
2-ethylhexyl methacrylate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.340mg/L	3
	EC50	48	Crustacea	0.85mg/L	2
	EC50	72	Algae or other aquatic plants	>1-260mg/L	2
	NOEC	504	Crustacea	0.105mg/L	2
2-(methacryloyloxy)ethyl acetoacetate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>89.1mg/L	2
	EC50	48	Crustacea	>96.6mg/L	2
	EC50	96	Algae or other aquatic plants	21.149mg/L	3
	NOEC	72	Algae or other aquatic plants	11.1mg/L	2
2-methacryloyloxyethyl succinate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	EC50	48	Crustacea	>515.4mg/L	2
	EC50	72	Algae or other aquatic plants	>=197mg/L	2
	EC10	72	Algae or other aquatic plants	>=49.5mg/L	2
	NOEC	72	Algae or other aquatic plants	>=21.1mg/L	2
cenospheres, hollow ceramic microspheres	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
succinic anhydride	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	63mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	NOEC	48	Crustacea	23mg/L	2
2-hydroxyethyl methacrylate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	210mg/L	2
	EC50	72	Algae or other aquatic plants	>1-260mg/L	2
	NOEC	504	Crustacea	24.1mg/L	2
<b>Legend:</b>	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
tetrahydrofurfuryl methacrylate	LOW	LOW
2-ethylhexyl methacrylate	LOW	LOW
2-(methacryloyloxy)ethyl acetoacetate	LOW	LOW
succinic anhydride	HIGH	HIGH
2-hydroxyethyl methacrylate	LOW	LOW

## Bioaccumulative potential

Ingredient	Bioaccumulation
tetrahydrofurfuryl methacrylate	LOW (LogKOW = 1.797)
2-ethylhexyl methacrylate	HIGH (LogKOW = 4.54)
2-(methacryloyloxy)ethyl acetoacetate	LOW (LogKOW = 0.2393)
succinic anhydride	LOW (LogKOW = 0.8102)
2-hydroxyethyl methacrylate	LOW (BCF = 1.54)

**Mobility in soil**

Ingredient	Mobility
tetrahydrofurfuryl methacrylate	LOW (KOC = 12.03)
2-ethylhexyl methacrylate	LOW (KOC = 677)
2-(methacryloyloxy)ethyl acetoacetate	LOW (KOC = 10)
succinic anhydride	HIGH (KOC = 1)
2-hydroxyethyl methacrylate	HIGH (KOC = 1.043)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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**SECTION 14 TRANSPORT INFORMATION****Labels Required**

<b>Marine Pollutant</b>	NO
<b>HAZCHEM</b>	Not Applicable

**Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture****TETRAHYDROFURFURYL METHACRYLATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**2-ETHYLHEXYL METHACRYLATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**2-(METHACRYLOYLOXY)ETHYL ACETOACETATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**2-METHACRYLOYLOXYETHYL SUCCINATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

**CENOSPHERES, HOLLOW CERAMIC MICROSPHERES IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**SUCCINIC ANHYDRIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

**2-HYDROXYETHYL METHACRYLATE IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -  
Schedule 5

### National Inventory Status

National Inventory	Status
Australia - AICS	No (cenospheres, hollow ceramic microspheres)
Canada - DSL	No (2-methacryloyloxyethyl succinate; cenospheres, hollow ceramic microspheres)
Canada - NDSL	No (tetrahydrofurfuryl methacrylate; 2-ethylhexyl methacrylate; 2-(methacryloyloxy)ethyl acetoacetate; cenospheres, hollow ceramic microspheres; succinic anhydride; 2-hydroxyethyl methacrylate)
China - IECSC	No (cenospheres, hollow ceramic microspheres)
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (cenospheres, hollow ceramic microspheres)
Korea - KECI	No (2-methacryloyloxyethyl succinate; cenospheres, hollow ceramic microspheres)
New Zealand - NZIoC	No (cenospheres, hollow ceramic microspheres)
Philippines - PICCS	No (2-methacryloyloxyethyl succinate; cenospheres, hollow ceramic microspheres)
USA - TSCA	No (cenospheres, hollow ceramic microspheres)
Taiwan - TCSI	Yes
Mexico - INSQ	No (2-ethylhexyl methacrylate; 2-methacryloyloxyethyl succinate; cenospheres, hollow ceramic microspheres)
Vietnam - NCI	No (tetrahydrofurfuryl methacrylate)
Russia - ARIPS	No (tetrahydrofurfuryl methacrylate; 2-methacryloyloxyethyl succinate)
<b>Legend:</b>	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

### SECTION 16 OTHER INFORMATION

<b>Revision Date</b>	23/07/2020
<b>Initial Date</b>	23/07/2020

### SDS Version Summary

Version	Issue Date	Sections Updated
2.1.1.1	23/07/2020	Advice to Doctor, Classification, Fire Fighter (fire/explosion hazard), Instability Condition, Personal Protection (Respirator), Storage (storage requirement)

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit.  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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