

LOCTITE V5004 PART A #768-2514

Chemwatch Independent Material Safety Data Sheet
Issue Date: 28-Aug-2013
9317SP

CHEMWATCH 36-7514
Version No:2.1.1.1
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

LOCTITE V5004 PART A #768-2514

SYNONYMS

"Manufacturer's Code: 768-2514"

PRODUCT USE

Acrylic Adhesive.
Part A of two part adhesive.

SUPPLIER

Company: RS Components Pty Ltd
Address:
Units 30 & 31, 761 Great South Road
Penrose
Auckland, 1006
New Zealand
Telephone: +64 9 526 1600
Fax: +64 9 579 1700

Company: RS Components Pty Ltd
Address:
25 Pavesi Street
Smithfield
NSW, 2164
Australia
Telephone: +1 300 656 636
Emergency Tel: 1800 039 008 (24 hours)
Emergency Tel: +61 3 9573 3112
Fax: +1 300 656 696

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

COMBUSTIBLE LIQUID, regulated under AS1940 for Bulk Storage purposes only.



RISK

- Irritating to eyes, respiratory system and skin.
- Harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment.

SAFETY

- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable gloves.
- Wear eye/face protection.
- To clean the floor and all objects contaminated by this material, use water and detergent.
- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
benzyl methacrylate	2495-37-6	50-<60
iso- bornyl methacrylate	7534-94-3	10-<20
1, 3- propylenediamine	109-76-2	0.1-<0.5
paraffin wax fume	8002-74-2	

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

LOCTITE V5004 PART B #768-2514

SYNONYMS

"Manufacturer's Code: 768-2514"

PROPER SHIPPING NAME

ADHESIVES containing flammable liquid

PRODUCT USE

Adhesive.

Part B of a two part adhesive.

SUPPLIER

Company: RS Components Pty Ltd
Address:
Units 30 & 31, 761 Great South Road
Penrose
Auckland, 1006
New Zealand
Telephone: +64 9 526 1600
Fax: +64 9 579 1700

Company: RS Components Pty Ltd
Address:
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Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.



RISK

- Highly flammable.
- May form explosive peroxides.
- Irritating to respiratory system and skin.
- Risk of serious damage to eyes.
- May cause SENSITISATION by skin contact.
- Harmful to aquatic organisms, may cause long- term adverse effects in the aquatic environment.
- Vapours may cause drowsiness and dizziness.

SAFETY

- Keep away from sources of ignition. No smoking.
- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable gloves.
- Wear eye/face protection.
- Handle and open container with care.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- Do not empty into drains.
- To clean the floor and all objects contaminated by this material, use water and detergent.
- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
- This material and its container must be disposed of as hazardous waste.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
methyl methacrylate	80-62-6	20-40
2- phenoxyethyl methacrylate	10595-06-9	5-15
methacrylic acid	79-41-4	5-<10
tetrahydrofurfuryl methacrylate	2455-24-5	1-10
2- hydroxyethyl methacrylate	868-77-9	1-10
cumyl hydroperoxide	80-15-9	0.1-<0.9

Section 4 - FIRST AID MEASURES

SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- 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.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- 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.

NOTES TO PHYSICIAN

- Treat symptomatically.

For methyl methacrylate:

Significant effects developing over a work-shift are not detected by symptomatology, blood pressure, respiratory function testing, haemoglobin and white cell count, urinalysis and blood chemistry. Effects may occur in high concentration exposure groups with regard to serum glucose and blood urea, nitrogen, cholesterol, albumin and total bilirubin values.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

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

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water course.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour may travel a considerable distance to source of ignition.

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Section 5 - FIRE FIGHTING MEASURES

- Heating may cause expansion or decomposition leading to violent rupture of containers.

Combustion products include: carbon dioxide (CO₂), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

May emit clouds of acrid smoke.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

•3YE

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Most acrylic monomers have low viscosity therefore pouring, material transfer and processing of these materials do not necessitate heating.
- 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.
- Do NOT use localised heat sources such as band heaters to heat/ melt product.
- Do NOT use steam .
- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.

The substance is a peroxidisable vinyl monomer that may exothermically polymerise as a result of decomposition of accumulated peroxides; that is, the peroxides initiate very energetic polymerisation of the bulk monomer

Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised.

- A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date.
- The person or laboratory receiving the chemical should record a receipt date on the bottle. The individual opening the container should add an opening date.
- Unopened containers received from the supplier should be safe to store for 18 months.
- Opened containers of inhibited material should not be stored for more than 12 months; they should NOT be stored under an inert atmosphere. Generally, storage of inhibited vinyl monomers should be under air rather than nitrogen or other inert atmosphere, because customary inhibitors are phenolic compounds, which require oxygen for their action. Most vinyl monomers may be polymerized without removal of inhibitor by proper adjustment of initiator concentration, thus making the isolation of the more hazardous uninhibited material unnecessary.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

SUITABLE CONTAINER

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used

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as an inner package, the can must have a screwed enclosure.

- For materials with a viscosity of at least 2680 cSt. (23 deg. C)
- For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)
- Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- Easily peroxidisable.
- Products formed as a result of peroxidation are not only safety hazards but may chemically alter the chemical behavior of the parent compound.
- Should have a warning label affixed bearing the date of receipt in the laboratory and the date on which the container label is first opened, or laboratory synthesised materials are the responsibility of the individual chemist.
- WARNING: This product may form peroxides which themselves are not themselves particularly hazardous but which on decomposition may initiate explosive polymerisation of the bulk monomer (Trommsdorf effect).
- Should be evaluated every 12 months, redated if safe or else discarded.
- Polymerisation may occur slowly at room temperature.
- Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.
- DO NOT overfill containers so as to maintain free head space above product.
- Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabiliser.
- Store below 38 deg. C.
- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	STEL ppm	STEL mg/m ³	Notes
Australia Exposure Standards	methyl methacrylate (Methyl methacrylate)	50	100	416	
Australia Exposure Standards	methacrylic acid (Methacrylic acid)	20			American Conference of Governmental Industrial Hygienists (ACGIH)4, 5 is the documentation on source

The following materials had no OELs on our records

- 2- phenoxyethyl methacrylate: CAS:10595- 06- 9
- tetrahydrofurfuryl methacrylate: CAS:2455- 24- 5
- 2- hydroxyethyl methacrylate: CAS:868- 77- 9
- cumyl hydroperoxide: CAS:80- 15- 9

MATERIAL DATA

2-HYDROXYETHYL METHACRYLATE:

2-PHENOXYETHYL METHACRYLATE:

METHYL METHACRYLATE:

TETRAHYDROFURFURYL METHACRYLATE:

- For 4-methoxyphenol (MEHQ)

MEHQ has caused ocular toxicity in animals and skin depigmentation in rodents and workers. The recommendation for the TLV-TWA arises from documented eye and skin toxicities and by analogy with hydroquinone.

2-PHENOXYETHYL METHACRYLATE:

METHYL METHACRYLATE:

TETRAHYDROFURFURYL METHACRYLATE:

- The recommended TLV-TWA for hydroquinone takes into account the toxicology of hydroquinone and experience of industrial exposures to benzenediols. Exposure at or below the limit is thought to minimise the risk to workers of eye injury, dermatitis

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and central nervous system effects.

2-HYDROXYETHYL METHACRYLATE:

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METHACRYLIC ACID:

- for methacrylic acid:

The recommended TLV-TWA is based on analogy with the TLV-TWA for acrylic acid and limited human and animal data. Exposure at or below this level is thought to minimise the potential for ocular or dermal irritation and systemic toxicity.

CUMYL HYDROPEROXIDE:

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- For cumyl hydroperoxide:

CEL TWA: 1 ppm, 6 mg/m³ (SKIN) (compare WEEL TWA)

(CEL = Chemwatch Exposure Limit)

Saturated vapour concentration: 2632 ppm at 20 C.

Cumene hydroperoxide is severely irritating to the eyes and skin and is moderately toxic by ingestion, inhalation and dermal absorption.

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METHYL METHACRYLATE:

- Odour Threshold Value (methyl methacrylate): 0.049 ppm (detection), 0.34 ppm (recognition)

NOTE: Detector tubes measuring in excess of 50 ppm, are available.

Concentrations as low as 125 ppm methyl methacrylate have produced irritation of the mucous membranes of exposed workers.

TETRAHYDROFURFURYL METHACRYLATE:

- No exposure limits set by NOHSC or ACGIH.

2-HYDROXYETHYL METHACRYLATE:

- for ethylene oxide:

Odour Threshold Value: 257-690 ppm (detection), 493 ppm (recognition)

NOTE: Detector tubes for ethylene oxide, measuring in excess of 1 ppm, are available commercially.

Exposure at or below the TLV-TWA is thought reduce the potential oncogenic risk and the risk from potential, non-neoplastic adverse effects non lungs, liver, kidneys, endocrine system, blood forming elements and the central nervous system.

Designated S in List of MAK values: Danger of sensitization.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany.

CEL TWA: 50 ppm, 260 mg/m³

CUMYL HYDROPEROXIDE:

- For cumene:

Odour Threshold Value: 0.008-0.132 ppm (detection), 0.047 ppm (recognition)

Exposure at or below the TLV-TWA is thought to prevent induction of narcosis.

For acetophenone:

Odour Threshold Value: 0.17 ppm

Acetophenone produces narcosis and anaesthesia when swallowed or injected intravenously or subcutaneously. Contact with the skin produces irritation and, if confined, may burn.

Acute inhalation studies indicate that a saturated atmosphere (nominally 400 ppm) produced no fatalities in rats exposed for 8 hours.

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

PERSONAL PROTECTION

RESPIRATOR

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

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

- NOTE:

• The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

protective equipment, to avoid all possible skin contact.

- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

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.

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.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

General warning: Do NOT use latex gloves! Use only recommended gloves - using the wrong gloves may increase the risk:

Exposure condition 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

Exposure condition 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 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.

Exposure condition Long time Cleaning operations

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

ENGINEERING CONTROLS

■ 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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Light pink liquid with a characteristic odour.

PHYSICAL PROPERTIES

Liquid.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Not Available
Flash Point (°C)	10	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	Not Available

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	30- 40 (VOC)	Evaporation Rate	Not Available

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Stable under controlled storage conditions provided material contains adequate stabiliser / polymerisation inhibitor.
- Bulk storages may have special storage requirements
- WARNING: 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.
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Accidental ingestion of the material may be damaging to the health of the individual.

Oral doses can produce low blood pressure, central nervous system depression and drowsiness, liver and kidney degeneration and death after cessation of breathing.

Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

At sufficiently high doses the material may be hepatotoxic(i.e. poisonous to the liver).

EYE

- If applied to the eyes, this material causes severe eye damage.

SKIN

- This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition.

Reports of dental technicians, surgeons and manufacturing employees with direct skin contact with methyl methacrylate show altered sensation such as numbing and tingling sensation on the fingers, with mild local nerve damage.

Open cuts, abraded or irritated skin should not be exposed to this material.

Entry into the blood-stream, through, for example, cuts, abrasions 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.

INHALED

- The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

Workers in plants manufacturing methyl methacrylate may experience headaches, pains in the extremities, tiredness, memory loss and sleep disturbance, with hormonal disturbance in women. Inhalation of the substance may cause low blood pressure, central nervous system depression, liver and kidney degeneration and death from failure of breathing.

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

If exposure to highly concentrated vapour atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and unless resuscitated - death.

CHRONIC HEALTH EFFECTS

- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.

Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Prolonged and repeated exposures can cause liver and kidney damage, low blood pressure and heart attack. There may be increased deaths from colon or rectal cancer. Long term local injection may cause tumour of the local tissues. When inhaled, it may cause

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Section 11 - TOXICOLOGICAL INFORMATION

watery and sore nostrils and destruction of the organ of smell.

TOXICITY AND IRRITATION

■ 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. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

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.

No significant acute toxicological data identified in literature search.

MMA is absorbed after inhalation, oral intake and less readily through the skin. Following inhalation it is partly deposited in the airway where it is metabolised by local enzymes. Acute toxicity is low. Skin, eye and airway irritation can result as well as degeneration of the smell function of the nose. Long term exposure may result in damage to the liver, kidney, brain, spleen and bone marrow. It may cause mutations, especially at high doses. There is no relevant concern for effects on reproduction or cancer.

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

Monalkyl or monoarylestere 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.

CARCINOGEN

methyl methacrylate	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3	Not classifiable as to its carcinogenicity to humans
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SKIN

methyl methacrylate	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	2
methacrylic acid	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3

Section 12 - ECOLOGICAL INFORMATION

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

This material and its container must be disposed of as hazardous waste.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
methyl methacrylate	LOW	No Data Available	LOW	HIGH
2- phenoxyethyl methacrylate	LOW	No Data Available	LOW	MED
methacrylic acid	LOW	No Data Available	LOW	HIGH
tetrahydrofurfuryl methacrylate	LOW	No Data Available	LOW	HIGH
2- hydroxyethyl methacrylate	LOW	No Data Available	LOW	HIGH
cumyl hydroperoxide	LOW	MED	LOW	MED

Section 13 - DISPOSAL CONSIDERATIONS

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

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Section 13 - DISPOSAL CONSIDERATIONS

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID

HAZCHEM:

•3YE (ADG7)

ADG7:

Class or Division:	3	Subsidiary Risk:	None
UN No.:	1133	Packing Group:	II
Special Provision:	*	Limited Quantity:	5 L
Portable Tanks & Bulk Containers - Instruction:	T4	Portable Tanks & Bulk Containers - Special Provision:	TP1 TP8
Packagings & IBCs - Packing Instruction:	P001 IBC02	Packagings & IBCs - Special Packing Provision:	PP1

Name and Description: ADHESIVES containing flammable liquid

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1133	Packing Group:	II
Special provisions:	A3		

Shipping name:ADHESIVES containing flammable liquid

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1133	Packing Group:	II
EMS Number:	F- E, S- D	Special provisions:	None
Limited Quantities:	5 L		

Shipping name:ADHESIVES containing flammable liquid

Section 15 - REGULATORY INFORMATION

Indications of Danger:

F	Highly Flammable
Xi	Irritant

POISONS SCHEDULE S6

REGULATIONS

Regulations for ingredients

continued...

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Section 15 - REGULATORY INFORMATION

methyl methacrylate (CAS: 80-62-6) is found on the following regulatory lists;

"Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix C", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "International Fragrance Association (IFRA) Standards Prohibited", "IOFI Global Reference List of Chemically Defined Substances", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

2-phenoxyethyl methacrylate (CAS: 10595-06-9) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)"

methacrylic acid (CAS: 79-41-4) is found on the following regulatory lists;

"Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

tetrahydrofurfuryl methacrylate (CAS: 2455-24-5) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "Sigma-AldrichTransport Information"

2-hydroxyethyl methacrylate (CAS: 868-77-9) is found on the following regulatory lists;

"Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "FisherTransport Information", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals"

cumyl hydroperoxide (CAS: 80-15-9) is found on the following regulatory lists;

"Acros Transport Information", "Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

No data for Loctite V5004 Part B #768-2514 (CW: 36-7515)

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
2- phenoxyethyl methacrylate	10595- 06- 9	N; R50
tetrahydrofurfuryl methacrylate	2455- 24- 5	Xn; R22 R43

■ 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.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

■ The (M)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.

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This is the end of the MSDS.

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Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
- If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- 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.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- 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.

NOTES TO PHYSICIAN

- Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

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

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.

FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include: carbon dioxide (CO₂), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

May emit clouds of acrid smoke.

May emit poisonous fumes.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

None

continued...

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Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.

MAJOR SPILLS

- Moderate hazard.
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Most acrylic monomers have low viscosity therefore pouring, material transfer and processing of these materials do not necessitate heating.
- 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.
- Do NOT use localised heat sources such as band heaters to heat/ melt product.
- Do NOT use steam .
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- For acrylic and methacrylic acid esters:
- Avoid contact with strong acids, strong alkalies, oxidising agents, polymerisation initiators (peroxides, persulfates), iron or rust
- Avoid heat, flame, sunlight, x-rays or ultra-violet radiation.
- Polymerisation may occur at elevated temperature and in presence of ignition sources - polymerisation of large quantities may be violent (even explosive).
- Store below 38 deg. C.

STORAGE REQUIREMENTS

- Storage requires stabilising inhibitor content and dissolved oxygen content to be monitored. Refer to manufacturer's recommended levels.
- DO NOT overfill containers so as to maintain free head space above product.
- Blanketing or sparging with nitrogen or oxygen free gas will deactivate stabiliser.
- Store below 38 deg. C.
- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- | | |
|-----------------------------|-----------------|
| • benzyl methacrylate: | CAS:2495- 37- 6 |
| • iso- bornyl methacrylate: | CAS:7534- 94- 3 |
| • 1, 3- propylenediamine: | CAS:109- 76- 2 |

continued...

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

MATERIAL DATA

1,3-PROPYLENEDIAMINE:

BENZYL METHACRYLATE:

LOCTITE V5004 PART A #768-2514:

- Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.

Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

ISO-BORNYL METHACRYLATE:

- For 4-methoxyphenol (MEHQ)

MEHQ has caused ocular toxicity in animals and skin depigmentation in rodents and workers. The recommendation for the TLV-TWA arises from documented eye and skin toxicities and by analogy with hydroquinone.

No exposure limits set by NOHSC or ACGIH.

CEL TWA: 25 ppm, 230 mg/m³; STEL: 35 ppm

[Rohm & Haas]

PARAFFIN WAX FUME:

The TLV-TWA is recommended to minimise the potential of irritation to respiratory passages and other unpleasant effects including general discomfort and nausea.

PERSONAL PROTECTION

RESPIRATOR

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

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

■ NOTE:

- 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.

- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

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.

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.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:.

General warning: Do NOT use latex gloves! Use only recommended gloves - using the wrong gloves may increase the risk:

Exposure condition Short time use; (few minutes less than 0.5 hour) Little physical stress

Exposure condition Medium time use; less than 4 hours Physical stress (opening drums, using tools, etc.)

Exposure condition Long time Cleaning operations

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

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 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.

continued...

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS

■ CARE: 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.

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Light blue slightly opaque liquid; does not mix with water.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Sinks in water.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Immiscible
Flash Point (°C)	>100	pH (1% solution)	Not Applicable
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Available	Specific Gravity (water=1)	1.0 @ 25 deg.C
Lower Explosive Limit (%)	Not Available	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	<3 (VOC)	Evaporation Rate	Not Available

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Polymerisation may occur at elevated temperatures.
- Polymerisation may be accompanied by generation of heat as exotherm.
- Process is self accelerating as heating causes more rapid polymerisation.
- Exotherm may cause boiling with generation of acrid, toxic and flammable vapour.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

continued...

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Section 11 - TOXICOLOGICAL INFORMATION

EYE

- This material can cause eye irritation and damage in some persons.

SKIN

- This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition.

Open cuts, abraded or irritated skin should not be exposed to this material.

Entry into the blood-stream, through, for example, cuts, abrasions 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.

INHALED

- The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation hazard is increased at higher temperatures.

Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea.

CHRONIC HEALTH EFFECTS

- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.

Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitised persons should not be allowed to work in situations where exposure may occur.

TOXICITY AND IRRITATION

- 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.

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 monoarylestere 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.

SKIN

paraffin wax fume	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	1
paraffin wax fume	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	0

Section 12 - ECOLOGICAL INFORMATION

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

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
benzyl methacrylate	LOW	No Data Available	LOW	MED
iso- bornyl methacrylate	HIGH	No Data Available	LOW	MED
1, 3- propylenediamine	LOW	No Data Available	LOW	HIGH
paraffin wax fume	No Data Available	No Data Available	No Data Available	No Data Available

continued...

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Section 13 - DISPOSAL CONSIDERATIONS

■ Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: COMBUSTIBLE LIQUID, regulated under AS1940 for Bulk Storage purposes only.

HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, IATA, IMDG

Section 15 - REGULATORY INFORMATION

Indications of Danger:

Xi

Irritant

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

benzyl methacrylate (CAS: 2495-37-6) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "Sigma-AldrichTransport Information"

iso-bornyl methacrylate (CAS: 7534-94-3) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

1,3-propylenediamine (CAS: 109-76-2) is found on the following regulatory lists;

"Acros Transport Information", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "OSPAR National List of Candidates for Substitution – United Kingdom", "Sigma-AldrichTransport Information"

paraffin wax fume (CAS: 8002-74-2,12704-91-5) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – United Kingdom", "Sigma-AldrichTransport Information"

No data for Loctite V5004 Part A #768-2514 (CW: 36-7514)

continued...

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Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
1, 3- propylenediamine	109- 76- 2	Xn; R22 R43 Xi; R38

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
paraffin wax fume	8002- 74- 2, 12704- 91- 5

■ 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.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)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.

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