

## Section 1: Identification of the Material and Supplier

**Product Name:** Nail Artistry Acrylic Liquid

**Other Names:** Nail liquid, monomer; Acrylic liquid, monomer

**Proper shipping name (ADG Code):** Ethyl methacrylate mixture.

**Recommended use:** As a nail liquid.

**Supplier:** The Nail Shop,  
22 Pleasant Grove, Holden Hill SA 5088  
Tel: 0416 157 087 (business hours)

**Emergency Phone Numbers (24 hours):**  
Transport/Fire Emergency: 000 (Emergency services)  
Medical Emergency: 131126 (Poisons Information Centre)

## Section 2: Hazards Identification

Hazardous according to criteria of Safe Work Australia.

Dangerous Goods.

**Risk Phrases:**

R: 11	Highly flammable.
R: 36/37/38	Irritating to eyes, respiratory system and skin.
R: 43	May cause sensitisation by skin contact.

**Safety Phrases:**

S: 2	Keep out of the reach of children.
S: 9	Keep container in a well ventilated place.
S: 16	Keep away from sources of ignition.
S: 29	Do not empty into drains.
S: 33	Take precautionary measures against static discharges.
S: 36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S: 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

## Section 3: Composition/Information on Ingredients

**Ingredients:**

Ethyl methacrylate	[97-63-2]	> 75 %
Hydroxy propyl methacrylate	[868-77-9]	> 10 %
Tetraethylene glycol dimethacrylate	[109-17-1]	< 10 %
N,N-Dimethyl-p-toluidine	[99-97-8]	< 1 %
D&C Violet #2 (CI 60725)	[81-48-1]	< 1 %
FD&C Blue #1	[3844-45-9]	< 1 %

## Section 4: First Aid Measures

**For advice, contact a Poisons Information Centre (Phone 131126) or a doctor.**

Swallowed: Do not induce vomiting. Rinse mouth with water.

Skin: Remove contaminated clothing and wash skin thoroughly with soap and water.

Eyes: Hold eyes open, flood with water for at least 15 minutes and seek medical advice.

Inhaled: Remove from exposure, rest and keep warm.

### **First Aid facilities:**

Recommended: Eye wash. Hand wash basin.

### **Advice to Doctor:**

Product is a mixture of methacrylate ester monomers. Irritating to skin and eyes. May cause sensitisation by skin contact. Contact Poisons Information Centre.

### **Aggravated medical conditions:**

Pre-existing skin disorders, pre-sensitisation to methacrylates. Compromised respiratory function.

## Section 5: Fire Fighting Measures

**HAZCHEM Code:** 3[Y]E

**Evacuate:** Yes.

**Extinguishant:** Foam. Use water sprays to cool exposed containers of methacrylate monomer.

**Risk of violent reaction or explosion:** Yes.  
Vapours are heavier than air - risk of remote ignition. Heat may induce polymerisation with rapid release of energy. Closed containers may rupture explosively.

**Products of combustion:** Oxides of carbon, water vapour, black smoke.

**Protective Equipment:** Breathing apparatus and protective gloves for fire only.

## Section 6: Accidental Release Measures

### **Emergency Procedures:**

Evacuate any unnecessary personnel.  
Shut off all sources of ignition.  
Increase ventilation.  
Contain.

Use only non-sparking tools.  
Prevent spillages from entering drains, natural waters or the environment.

**For large spills:**

Contain spillage using sand or earth. Transfer liquid and solids to suitable closed container. Treat residues as for small spillage.

**For small spills:**

Absorb on inert absorbent, transfer to suitable closed container and arrange removal by disposals company. Wash site of spillage thoroughly with water and detergent. Ventilate area to dispel any residual vapours.

## Section 7: Handling and Storage

**Precautions for safe handling:**

Avoid contact with skin and eyes. Do not breathe vapours.  
Protect from heat and direct sunlight.

**Conditions for safe storage:**

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bunded dangerous goods store. Store in original container. Keep container tightly closed and out of direct sunlight. The inhibitor requires the presence of oxygen to prevent polymerisation - do not store under inert gas. Check inhibitor levels after 3 months storage.  
Keep away from naked flames and other sources of ignition. Keep away from oxidising agents. Prevent vapours from collecting in enclosed or low lying places. Take precautionary measures against static discharges. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

**Incompatibles:**

Oxidising agents, sources of ignition, heat, sunlight.

## Section 8: Exposure Controls/Personal Protection

**National Exposure Standards:**

**ES-TWA:** Ethyl methacrylate  
none assigned by NOHSC, but see: 50 ppm, 235 mg/m<sup>3</sup>  
(Denmark, Sweden, Norway, Russia)

**ES-PEAK:** None assigned.

**Notations:** None.

**Biological Limit Values:** No data.

**Engineering Controls:**

Use only flame proof equipment and non-sparking tools.  
Ensure adequate ventilation (same as outdoors) when using.  
If handling industrial quantities or if aerosol/vapour risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible.

**Personal Protective Equipment:**

Avoid contact with skin and eyes. Avoid breathing vapours.  
Personal protection to be selected from those recommended below,  
as appropriate to mode of use, quantity handled and degree of  
hazard:-

**Normal Use:**

Eye/face protection  
Gloves, rubber or plastic.

**Industrial Quantities:**

Positive pressure air-hood  
Full face respirator with organic vapour cartridges  
Face shield or safety glasses  
Gloves, rubber or plastic  
Plastic apron, sleeves and boots  
Impervious overalls.

## Section 9: Physical and Chemical Properties

Appearance:	Blue-violet liquid.
Odour:	Sharp, ester-like odour.
pH:	No data.
Vapour Pressure:	0.69 kPa @ 38 °C
Vapour Density:	3.9 (Air = 1)
Boiling Point:	117 °C
Melting Point:	No data.
Viscosity:	< 1 mPas @ 20 °C
Volatiles:	> 99 %
Volatile Organic Compounds (VOC):	> 99 %
Evaporation Rate:	1.5 (n-butyl acetate = 1)
Solubilities:	0.5 g/100 g of water @ 20 °C
Octanol/Water Partition Coefficient (Log Po/w):	1.25
Specific Gravity/Density:	0.918 (Water = 1)
Flash Point:	20 °C (Tag closed cup)
Flammable Limits:	2.0 - 2.5 %
Dust Explosion:	Not applicable.
Auto-ignition Temperature:	392.8 °C

**Other Information:**

Contains volatile ethyl methacrylate, vapours mix readily with air  
and explosive mixtures are easily formed.  
Sensitive to light, heat.  
Incompatible with strong oxidants, metals, strong acids.  
The liquid contains a stabiliser, but vapours will not be  
inhibited and may polymerise without warning in ventilation  
systems.  
Slippery when spilled.

## Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Incompatible materials, heat, light,  
exhaustion of inhibitors.

**Incompatible Materials:** Oxidising agents, reducing agents, metals,

acids, peroxides, amines.

**Hazardous Decomposition Products:** Oxides of carbon when burned.

**Hazardous Reactions:** May polymerise violently on contact with incompatible materials, or on exposure to heat or light (including UV light).

## Section 11: Toxicological Information

**Health Effects:**

No data available for the mixture. Information presented relates to individual ingredients.

**Acute:**

**Swallowed:** Will cause irritation, a burning sensation of the mouth, throat and respiratory tract, and abdominal pain.

**Skin:** Concentrated liquid may cause moderate skin irritation.

**Eyes:** Concentrated vapours may cause irritation of the eyes. Contact with the liquid may cause irritation and possible corneal damage.

**Inhaled:** High vapour concentrations may irritate the respiratory system. Prolonged exposure can lead to headache, nausea, drowsiness and loss of consciousness.

**Chronic:** Repeated or prolonged skin contact may cause allergic skin rashes, itching and swelling which becomes evident on re-exposure to this product.  
Ethyl methacrylate is reported by RTECS as a mutagen (mouse lymphocyte). (1)  
Ethyl methacrylate is reported by RTECS as a reproductive affector (rat). (2) (3)

**LD50:** 13,300 mg/kg oral, rat. [Manufacturer]  
9,100 mg/kg skin, rabbit. [Manufacturer]

**LC50:** 3,800 ppm, rabbit. [Manufacturer]

## Section 12: Ecological Information

**Ecotoxicity:** May be harmful to aquatic organisms.

**Persistence and degradability:** No data.

**Mobility:** May be readily transported by water.

**Environmental Fate:** No data.

**Bioaccumulative potential:** No data.

Other adverse environmental effects: No data.

### Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

**Disposal methods and containers:**

High temperature incineration.

Avoid disposal to sewer, natural waters or the environment.

**Special precautions for landfill or incineration:**

Not suitable for landfill.

### Section 14: Transport Information

UN Number: UN 2277

UN Proper shipping name: Ethyl methacrylate mixture.

Class and subsidiary risk: 3 Flammable liquid.

Packaging group: II

Special precautions for user: Keep away from naked flames and other sources of ignition. Protect from heat and direct sunlight. Do not transport with, or store near, dangerous goods classes 1, 2.1 (bulk), 2.3, 4.2, 5.1, 5.2, 7.

HAZCHEM Code: 3[Y]E

Material for export: Refer to **IMDG** and **IATA/ICAO**.

### Section 15: Regulatory Information

Poisons (SUSDP): S5 Poison

Dangerous Goods: Yes. UN 2277 3/II.

Carcinogen:	<b>Australia</b>	<b>IARC</b>	<b>NTP</b>	<b>RTECS</b>
	No.	No.	No.	No.

Agricultural and Veterinary Chemicals Act: Not applicable.

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data.

### Section 16: Other information

Date of MSDS preparation: May 2015

**Abbreviations:**

- NOHSC - National Occupational Health and Safety Commission.  
ACGIH - American Conference of Governmental Industrial Hygienists.  
MAK - Maximum workplace concentration - Germany,  
(*maximale Arbeitsplatzkonzentration*)  
IARC - International Agency for Research on Cancer (France).  
NPT - National Toxicology Program (USA).  
RTECS - Registry of Toxic Effects of Chemical Substances.  
HSE - Health and Safety Executive (United Kingdom).

**Literature references:**

- (1) *Environmental and Molecular Mutagenesis* (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003), V.11, 49, 1988.
- (2) *Toxicological Sciences* (Oxford University Press, 6277 Sea Harbor Drive, Orlando, FL 32887) V.50, 136, 1999.
- (3) *Journal of Dental Research*. (International Association for Dental Research, 734 15th St., NW, Suite 809, Washington, DC 20005) V.51, 1632, 1972.
- (4) *Mutation Research*. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.517, 187, 2002.
- (5) *Gigiena i Sanitariya*. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, Russia) V.52(11), 81, 1987.

**Available Sources of Data:**

*National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)]* - NOHSC.  
*Australian Dangerous Goods Code*.  
*Standard for the Uniform Scheduling of Drugs and Poisons* - AHMAC.  
*Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]*- NOHSC.  
*List of Designated Hazardous Substances [10005]* - NOHSC.  
*Merck Index* - Merck Inc.  
*Sax's Dangerous Properties of Industrial Materials* - Lewis.  
*Handbook of Toxic and Hazardous Chemicals and Carcinogens* - Sittig.  
*Handbook of Reactive Chemical Hazards* - Bretherick.  
*Hawley's Condensed Chemical Dictionary* - Wiley Interscience.  
*AUSREG's Chemical Data Package for PCs* - AUSREG Consultancy.