

**Section 1 - Identification of The Material and Supplier**

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**Chemical nature:** Acrylic lacquer presented as an aerosol.  
**Trade Name:** **Circuit Board Lacquer**  
**Product Use:** To protect circuit board components.  
**Creation Date:** **May, 2013**  
**This version issued:** **March, 2018** and is valid for 5 years from this date.

**Section 2 - Hazards Identification****Statement of Hazardous Nature**

This product is classified as: Xn, Harmful, Xi, Irritating, N, Dangerous to the environment, F+, Highly Flammable. Hazardous according to the criteria of SWA.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** R11, R65, R66, R67, R36/38, R52/53. Highly flammable. Harmful: May cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

**Safety Phrases:** S15, S23, S36, S46, S51, S62, S24/25. Keep away from heat. Do not breathe spray mists. Wear suitable protective clothing. If swallowed, contact a doctor or Poisons Information Centre immediately and show this MSDS or label. Use only in well ventilated areas. If swallowed, do not induce vomiting; seek medical advice immediately and show this MSDS. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 2.1: Flammable gases.

**UN Number:** 1950, AEROSOLS

**GHS Signal word: DANGER****HAZARD STATEMENT:**

H225: Highly flammable liquid and vapour.  
H280: Contains gas under pressure; may explode if heated.  
AUH066: Repeated exposure may cause skin dryness or cracking.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H320: Causes eye irritation.  
H336: May cause drowsiness or dizziness.  
H412: Harmful to aquatic life with long lasting effects.

**PREVENTION**

P102: Keep out of reach of children.  
P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.  
P211: Do not spray on an open flame or other ignition source.  
P251: Pressurized container: Do not pierce or burn, even after use.  
P261: Avoid breathing fumes, mists, vapours or spray.  
P264: Wash contacted areas thoroughly after handling.  
P271: Use only outdoors or in a well ventilated area.  
P280: Wear protective gloves, protective clothing and eye or face protection.

**RESPONSE**

P352: Wash with plenty of soap and water.  
P362: Take off contaminated clothing and wash before reuse.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

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P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313: If skin irritation occurs: Get medical advice.  
P337+P313: If eye irritation persists: Get medical advice.  
P372: Explosion risk in case of fire.  
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires.

**STORAGE**

P402+P404: Store in a dry place. Store in a closed container.  
P403+P235: Store in a well-ventilated place. Keep cool.  
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C.

**DISPOSAL**

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

**Emergency Overview**

**Physical Description & Colour:** Liquid; no further details available.

**Odour:** Characteristic odour.

**Major Health Hazards:** irritating to eyes and skin, if aspirated, may cause lung damage, repeated exposure may cause skin dryness or cracking, vapours may cause drowsiness and dizziness.

**Potential Health Effects****Inhalation:**

**Short Term Exposure:** High vapour pressures may cause drowsiness and dizziness. In addition product is unlikely to cause any discomfort or irritation. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.

**Long Term Exposure:** Vapours may cause drowsiness and dizziness.

**Skin Contact:**

**Short Term Exposure:** Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.

**Long Term Exposure:** Repeated exposure may cause skin dryness or cracking.

**Eye Contact:**

**Short Term Exposure:** If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. Because of the low viscosity of this product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to remove and can cause severe injury or death. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** Solvent Naphtha (petroleum), Light Arom. is classified by SWA as a Class 2 Carcinogen, likely to be carcinogenic to humans.

See the SWA website for further details. A web address has not been provided as addresses frequently change.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Dimethyl ether	115-10-6	30-60	760	950
Solvent naphtha (petroleum), light arom.	64742-95-6	max 20	not set	not set
Acetone	67-64-1	max 20	1185	2375
1,2,4-Trimethylbenzene	95-63-6	max 20	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

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This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

## Section 4 - First Aid Measures

### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Quickly and gently blot away excess liquid. Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

**Eye Contact:** Quickly and gently blot material from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

## Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

<b>Flash point:</b>	Below -10°C
<b>Upper Flammability Limit:</b>	Not available
<b>Lower Flammability Limit:</b>	Not available
<b>Autoignition temperature:</b>	No data.
<b>Flammability Class:</b>	Highly flammable.

## Section 6 - Accidental Release Measures

**Accidental release:** This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we

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suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Dimethyl ether	760	950
Acetone	1185	2375

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC, butyl rubber, Teflon, PE/EVAL, Responder.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being handled commercially.

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Liquid; no further details available.
<b>Odour:</b>	Characteristic odour.
<b>Boiling Point:</b>	Not available.
<b>Freezing/Melting Point:</b>	No specific data. Liquid at normal temperatures.
<b>Volatiles:</b>	No data.
<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	No data.
<b>Water Solubility:</b>	Insoluble.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data.
<b>Autoignition temp:</b>	No data.

## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition. Any electrical equipment in the area of this product should be flame proofed.

**Incompatibilities:** oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

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## Section 11 - Toxicological Information

### Local Effects:

**Target Organs:** There is no data to hand indicating any particular target organs.

## Classification of Hazardous Ingredients

### Ingredient

### Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

## Section 12 - Ecological Information

Harmful to aquatic organisms, may cause long-term adverse effects to the aquatic environment. Insufficient data to be sure of status.

## Section 13 - Disposal Considerations

**Disposal:** Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

## Section 14 - Transport Information

**ADG Code:** 1950, AEROSOLS

**Hazchem Code:** 2YE

**Special Provisions:** 63, 190, 277

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 1000mL for this class of product.

**Dangerous Goods Class:** Class 2.1: Flammable gases.

**Packaging Group:** Not set

**Packaging Method:** P003

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredients: Acetone, Solvent naphtha (petroleum), light arom (as hydrocarbon, liquid) are mentioned in the SUSMP.

## Section 16 - Other Information

**This MSDS contains only safety-related information. For other data see product literature.**

### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

## SAFETY DATA SHEET

Issued by: Richard Foot Pty Ltd

Phone: 02 9979 4266 (office hours)

**Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)**

Please read all labels carefully before using product.

This MSDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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