

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### 1.1 Product identifier

**Product name** LOCTITE HYSOL 0151 EPK PART A  
**Synonym(s)** NSN: XXXX-00-061-8303  
0151 HYSOL RESIN • 398470 - PRODUCT CODE • 83176 - PART NUMBER • HYSOL 0151 EPOXI PATCH ADHESIVE • HYSOL 0151 EPOXI-PATCH ADHESIVE (RESIN) • HYSOL 0151 RESIN (FORMERLY) • KIT 83176 • LOCTITE HYSOL 0151 EPK PART A

### 1.2 Uses and uses advised against

**Use(s)** EPOXY RESIN SYSTEM • MK 48 TORPEDO COMPONENT • TWO COMPONENT EPOXY SYSTEM

### 1.3 Details of the supplier of the safety data sheet

**Supplier name** HENKEL AUSTRALIA PTY LTD  
**Address** 135 - 141 Canterbury Rd, Kilsyth, VIC, Australia, 3137  
**Telephone** (03) 9724 6444  
**Fax** (03) 9728 5877  
**Email** msds@au.henkel.com  
**Website** <http://www.loctite.com.au>

### 1.4 Emergency telephone number(s)

**Emergency** 1800 032 379; (03) 9724 6556

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**GHS Classification(s)** Acute Toxicity: Oral: Category 4  
Skin Corrosion/Irritation: Category 2  
Skin Sensitisation: Category 1  
Serious Eye Damage / Eye Irritation: Category 2A  
Acute Toxicity: Inhalation: Category 4  
Specific Target Organ Systemic Toxicity (Single Exposure): Category 3  
Germ Cell Mutagenicity: Category 2  
Carcinogenicity: Category 2  
Aquatic Toxicity (Chronic): Category 2

### 2.2 Label elements

**Signal word** WARNING

**Pictograms**



**Hazard statement(s)**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.

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**Prevention statement(s)**

- P202                    Do not handle until all safety precautions have been read and understood.
- P261                    Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264                    Wash thoroughly after handling.
- P270                    Do not eat, drink or smoke when using this product.
- P271                    Use only outdoors or in a well-ventilated area.
- P272                    Contaminated work clothing should not be allowed out of the workplace.
- P273                    Avoid release to the environment.
- P280                    Wear protective gloves/protective clothing/eye protection/face protection.

**Response statement(s)**

- P302 + P352                    IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340                    IF INHALED: Remove 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.
- P308 + P313                    IF exposed or concerned: Get medical advice/ attention.
- P321                    Specific treatment is advised - see first aid instructions.
- P330                    Rinse mouth.
- P362                    Take off contaminated clothing and wash before re-use.
- P391                    Collect spillage.

**Storage statement(s)**

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

**Disposal statement(s)**

- P501                    Dispose of contents/container in accordance with relevant regulations.

**2.3 Other Hazards**

No information provided.

**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

**3.1 Substances / Mixtures**

Ingredient	CAS number	EC number	Content
BISPHENOL-A-(EPICHLORHYDRIN), REACTION PRODUCT	25068-38-6	500-033-5	>60%
N-BUTYL GLYCIDYL ETHER	2426-08-6	219-376-4	10 - 30%
SILICA, AMORPHOUS - FUMED, CRYSTALLINE FREE	112945-52-5	601-216-3	1 - 5%

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

- Eye**                    If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
- Inhalation**                    If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
- Skin**                    If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
- Ingestion**                    For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
- First aid facilities**                    Eye wash facilities and safety shower are recommended.

**4.2 Most important symptoms and effects, both acute and delayed**

Irritating to the eyes and skin. May cause sensitisation by skin contact.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

**5.2 Special hazards arising from the substance or mixture**

Combustible. May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition.

**5.3 Advice for firefighters**

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**5.4 Hazchem code**

- 3Z
  - Alcohol Resistant Foam is the preferred firefighting medium. Else use;
  - 3 Normal Foam (protein based foam that is not alcohol resistant).
  - Z Wear full fire kit and breathing apparatus. Contain spill and run-off.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

**6.2 Environmental precautions**

Prevent product from entering drains and waterways.

**6.3 Methods of cleaning up**

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

**6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

**7.2 Conditions for safe storage, including any incompatibilities**

Store tightly sealed in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should be bunded and have appropriate fire protection and ventilation systems.

**7.3 Specific end use(s)**

No information provided.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Substance	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Fumed silica (respirable dust)	SWA (AUS)	--	2	--	--
n-Butyl glycidyl ether (BGE)	SWA (AUS)	25	133	--	--

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**Biological limits**

No biological limit values have been entered for this product.

**8.2 Exposure controls**

**Engineering Controls**    Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE**

- Eye/Face**                    Wear splash-proof goggles.
- Hand**                        Wear viton (R) or nitrile gloves.
- Body**                        Wear coveralls. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.
- Respiratory**                Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.



**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	MILKY WHITE LIQUID
<b>Odour</b>	SLIGHT ODOUR
<b>Odour Threshold</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Melting Point</b>	NOT AVAILABLE
<b>Boiling Point</b>	140°C
<b>Flash Point</b>	> 91°C (cc)
<b>Evaporation Rate</b>	NOT AVAILABLE
<b>Flammability</b>	CLASS C1 COMBUSTIBLE
<b>Upper Explosion Limit</b>	NOT AVAILABLE
<b>Lower Explosion Limit</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	NOT AVAILABLE
<b>Vapour Density</b>	NOT AVAILABLE
<b>Solubility (water)</b>	SLIGHTLY SOLUBLE
<b>Partition Coefficient</b>	NOT AVAILABLE
<b>Autoignition Temperature</b>	NOT AVAILABLE
<b>Decomposition Temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive Properties</b>	NOT AVAILABLE
<b>Oxidising Properties</b>	NOT AVAILABLE
<b>Specific Gravity</b>	1.13

**9.2 Other information**

No information provided.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources. Incompatible with amines.

### 10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Health hazard summary</b>	Irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Irritating to the eyes and skin. May cause sensitisation by skin contact. The cured product is considered non toxic. Limited evidence of a carcinogenic effect. Possible risk of irreversible effects.
<b>Eye</b>	Irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	Irritant. Over exposure whilst curing may result in irritation of the nose and throat, coughing, possible sensitisation with asthma-like symptoms and pulmonary oedema at high levels.
<b>Skin</b>	Irritant. Contact may result in irritation, redness, rash and dermatitis. May cause sensitisation by skin contact.
<b>Ingestion</b>	May be harmful. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea. Harmful if swallowed.
<b>Toxicity data</b>	<p>BISPHENOL-A-(EPICHLORHYDRIN), REACTION PRODUCT (25068-38-6)</p> <p>LD50 (Ingestion): 2 - 19 g/kg (rat)</p> <p>LD50 (Intraperitoneal): 2.2 g/kg (rat)</p> <p>LD50 (Skin): &gt; 20 mL/kg (rabbit)</p> <p>N-BUTYL GLYCIDYL ETHER (2426-08-6)</p> <p>LC50 (Inhalation): 260 mg/m<sup>3</sup> (mouse)</p> <p>LD50 (Ingestion): 1530 mg/kg (mouse)</p> <p>LD50 (Intraperitoneal): 700 mg/kg (mouse)</p> <p>LD50 (Skin): 2520 uL/kg (rabbit)</p> <p>SILICA, AMORPHOUS - FUMED, CRYSTALLINE FREE (112945-52-5)</p> <p>LCLo (Inhalation): 10 mg/kg intratracheal, rat</p> <p>LD50 (Ingestion): 3160 mg/kg (rat)</p> <p>LD50 (Intravenous): 15 mg/kg (rat)</p> <p>LDLo (Ingestion): 50 mg/kg intraperitoneal, rat</p>

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

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

**12.2 Persistence and degradability**

No information provided.

**12.3 Bioaccumulative potential**

No information provided.

**12.4 Mobility in soil**

No information provided.

**12.5 Results of PBT and vPvB assessment**

No information provided.

**12.6 Other adverse effects**

No information provided.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste disposal** Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.

**Legislation** Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
<b>14.1 UN number</b>	3082	3082	3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
<b>14.3 Transport hazard classes</b>			
<b>DG Class</b>	9	9	9
<b>Subsidiary risk(s)</b>	None Allocated	-	-
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>		None Allocated	
<b>14.6 Special precautions for user</b>			
<b>Hazchem Code</b>	•3Z		
<b>EMS</b>		F-A, S-F	

**15. REGULATORY INFORMATION**

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

**Poison schedule** Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

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**Classifications**                Carc. - Carcinogen  
    Muta. - Mutagen  
    N - Dangerous for the environment  
    Xi - Irritant  
    Xn - Harmful

**Risk phrases**                    R20/22:                                Harmful by inhalation and if swallowed.  
    R36/37/38:                            Irritating to eyes, respiratory system and skin.  
    R40:                                        Limited evidence of a carcinogenic effect.  
    R43:                                        May cause sensitisation by skin contact.  
    R51/53:                                Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.  
    R68:                                        Possible risks of irreversible effects.

**Safety phrases**                    S24/25:                                Avoid contact with skin and eyes.  
    S26:                                        In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
    S37/39:                                Wear suitable gloves and eye/face protection.  
    S46:                                        If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.  
    S61:                                        Avoid release to the environment. Refer to special instructions/safety data sheets.

**WHS regulatory information**

Ingredient name	CAS number	Regulation	Details
SILICA, AMORPHOUS - FUMED, CRYSTALLINE FREE	112945-52-5	Restricted Hazardous Chemicals	Free silica (crystalline silicon dioxide). For abrasive blasting >1%.

**Inventory listing(s)**            **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
 All components are listed on AICS, or are exempt.

**15.2 Chemical safety assessment**

No information provided.

**16. OTHER INFORMATION**

**Additional information**        This product is used in conjunction with HYSOL 0151 EPOXI-PATCH HARDENER. Please refer to the appropriate SDS before use.

**WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT:** If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

**EPOXY - PHENOXY RESINS AND POLYURETHANES:** Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.

**RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Report Status**

This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.



**Product name**                    **LOCTITE HYSOL 0151 EPK PART A**

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**End of Report**