

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**1.1 Product identifier**

**Product name** HYSOL EA 960F PART B  
**Synonym(s)** HENKEL HYSOL EA 960F PART B

**1.2 Uses and uses advised against**

**Use(s)** HARDENER FOR EPOXY RESIN SYSTEM • 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 Road, Kilsyth, Victoria, 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  
 Acute Toxicity: Skin: Category 4  
 Skin Corrosion/Irritation: Category 1C  
 Skin Sensitization: Category 1  
 Serious Eye Damage / Eye Irritation: Category 1  
 Acute Toxicity: Inhalation: Category 4  
 Germ Cell Mutagenicity: Category 2

**2.2 Label elements**

**Signal word** DANGER

**Pictograms**



**Hazard statement(s)**

H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H341 Suspected of causing genetic defects.

**Prevention statement(s)**

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P260 Do not breathe 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.

**Product name** HYSOL EA 960F PART B

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response statement(s)**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment is advised - see first aid instructions.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

**Storage statement(s)**

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
DIETHYLENETRIAMINE	111-40-0	203-865-4	5-10%
TRIETHYLENETETRAMINE (TETA)	112-24-3	203-950-6	1-5%
PHENOL	108-95-2	203-632-7	1-3%
ETHYLENE GLYCOL	107-21-1	203-473-3	<1%
FATTY ACIDS, C18-UNSATD., DIMERS, OLIGOMERIC REACTION PRODUCTS WITH TALL-OIL FATTY ACIDS AND TRIETHYLENETETRAMINE	68082-29-1	500-191-5	30-60%
TALC	14807-96-6	238-877-9	10-30%
SILICA, AMORPHOUS - FUMED, CRYSTALLINE FREE	112945-52-5	601-216-3	1-5%
TITANIUM DIOXIDE	13463-67-7	236-675-5	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 should be available.

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

No information provided.

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

Treat symptomatically.

Product name HYSOL EA 960F PART B

**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

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

Non flammable. May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, 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**

2X  
 2 Water Fog (or fine water spray if fog unavailable)  
 X Full protective clothing including Self Contained Breathing apparatus.

**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 in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Store below 25°C.

**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>
Diethylene triamine	SWA (AUS)	1	4.2	--	--
Ethylene glycol (particulate)	SWA (AUS)	--	10	--	--
Ethylene glycol (vapour)	SWA (AUS)	20	52	40	104
Fumed silica (respirable dust)	SWA (AUS)	--	2	--	--
Phenol	SWA (AUS)	1	4	--	--
Talc (no asbestos fibres)	SWA (AUS)	--	2.5	--	--
Titanium dioxide (a)	SWA (AUS)	--	10	--	--

**Product name** HYSOL EA 960F PART B

**Biological limits**

Ingredient	Reference	Determinant	Sampling time	BEI
PHENOL	ACGIH BEI	Total phenol in urine (with hydrolysis)	End of shift	250 mg/g creatinine

**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>	OFF WHITE PASTE
<b>Odour</b>	AMMONIACAL ODOUR
<b>Odour Threshold</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Melting Point</b>	NOT AVAILABLE
<b>Boiling Point</b>	NOT AVAILABLE
<b>Flash Point</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE
<b>Flammability</b>	NON FLAMMABLE
<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Vapour Pressure</b>	NOT AVAILABLE
<b>Vapour Density</b>	NOT AVAILABLE
<b>Solubility (water)</b>	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>	1.25

**9.2 Other information**

**% Volatiles** NOT AVAILABLE

**Product name**                    **HYSOL EA 960F PART B**

**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.

**10.6 Hazardous decomposition products**

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

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

<b>Health hazard summary</b>	Slightly corrosive - 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. Potential sensitising agent. Individuals with pre-existing respiratory impairment (eg asthmatics) or skin sensitivities may be more susceptible to adverse health effects. Possible risk of irreversible effects.
<b>Eye</b>	Slightly corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible burns.
<b>Inhalation</b>	Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, with coughing. May cause sensitisation by inhalation. High level exposure may result in breathing difficulties, ulceration, pulmonary oedema and unconsciousness.
<b>Skin</b>	Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause sensitisation by skin contact.
<b>Ingestion</b>	Slightly corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.
<b>Toxicity data</b>	<p>DIETHYLENETRIAMINE (111-40-0)</p> <p>LD50 (Ingestion): 1080 mg/kg (rat)</p> <p>LD50 (Intraperitoneal): 71 mg/kg (mouse)</p> <p>LD50 (Skin): 0.17 mL/kg (guinea pig)</p> <p>TDLo (Ingestion): 1820 mg/kg/26 weeks intermittently (rabbit)</p> <p>TRIETHYLENETETRAMINE (TETA) (112-24-3)</p> <p>LD50 (Ingestion): 1600 mg/kg (mouse)</p> <p>LD50 (Intraperitoneal): 468 mg/kg (mouse)</p> <p>LD50 (Intravenous): 350 mg/kg (mouse)</p> <p>LD50 (Skin): 805 mg/kg (rabbit)</p> <p>PHENOL (108-95-2)</p> <p>LC50 (Inhalation): 177 mg/m<sup>3</sup> (mouse)</p> <p>LD50 (Ingestion): 270 mg/kg (mouse)</p> <p>LD50 (Intraperitoneal): 127 mg/kg (rat)</p> <p>LD50 (Intravenous): 112 mg/kg (mouse)</p> <p>LD50 (Skin): 630 mg/kg (rabbit)</p> <p>LD50 (Subcutaneous): 344 mg/kg (mouse)</p> <p>LDLo (Ingestion): 10 mg/kg (infant)</p> <p>LDLo (Intraperitoneal): 300 mg/kg (guinea pig)</p> <p>LDLo (Intravenous): 180 mg/kg (rabbit)</p> <p>LDLo (Subcutaneous): 75 mg/kg (frog)</p> <p>TDLo (Skin): 16 g/kg (mouse)</p> <p>ETHYLENE GLYCOL (107-21-1)</p> <p>LC50 (Inhalation): 10,876 mg/kg (rat)</p> <p>LD50 (Ingestion): 1670 mg/kg (cat)</p>

**Product name**

**HYSOL EA 960F PART B**

LD50 (Skin): 9,530 ug/kg (rabbit)  
 LDLo (Ingestion): 398 mg/kg (human)  
 TCLo (Inhalation): 10,000 mg/m<sup>3</sup> (human - cough)  
 TDLo (Ingestion): 5,500 mg/kg (child - anaesthesia)  
 TALC (14807-96-6)  
 TCLo (Inhalation): 18 mg/m<sup>3</sup>/6 hour/2 year-intermittent (rat)  
 SILICA, AMORPHOUS - FUMED, CRYSTALLINE FREE (112945-52-5)  
 LCLo (Inhalation): 10 mg/kg intratracheal, rat  
 LD50 (Ingestion): 3160 mg/kg (rat)  
 LD50 (Intravenous): 15 mg/kg (rat)  
 LDLo (Ingestion): 50 mg/kg intraperitoneal, rat

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No information provided.

**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)**

**14.1 UN number**

3259

3259

3259

**14.2 UN proper shipping name**

AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.

**Product name** HYSOL EA 960F PART B

**14.3 Transport hazard classes**

<b>DG Class</b>	8	8	8
<b>Subsidiary risk(s)</b>	None Allocated	-	-

**14.4 Packing group**

	III	III	III
--	-----	-----	-----

**14.5 Environmental hazards**

None Allocated

**14.6 Special precautions for user**

<b>Hazchem Code</b>	2X	
<b>EMS</b>		F-A, S-B

**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).

**Classifications**  
 C - Corrosive  
 Muta. - Mutagen  
 Xi - Irritant  
 Xn - Harmful

**Risk phrases**

R20/21/22:	Harmful by inhalation, in contact with skin and if swallowed.
R34:	Causes burns.
R41:	Risk of serious damage to eyes.
R43:	May cause sensitisation by skin contact.
R68:	Possible risks of irreversible effects.

**Safety phrases**

S23:	Do not breathe gas/fumes/vapour/spray (where applicable).
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S27:	Take off immediately all contaminated clothing.
S28:	After contact with skin, wash immediately with plenty of water.
S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
S45:	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

**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 EA 960F Part A. Please consult the appropriate ChemAlert report 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

**Product name**                    **HYSOL EA 960F PART B**

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.

**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.

**COLOUR RATING SYSTEM:** RMT has assigned all ChemAlert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all ChemAlert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

**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
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
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



**Product name** HYSOL EA 960F PART B

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.

**Prepared By** Risk Management Technologies  
5 Ventnor Ave, West Perth  
Western Australia 6005  
Phone: +61 8 9322 1711  
Fax: +61 8 9322 1794  
Email: [info@rmt.com.au](mailto:info@rmt.com.au)  
Web: [www.rmt.com.au](http://www.rmt.com.au)

**Last Reviewed:** 28 Feb 2013

**Date Printed:** 11 Mar 2015

**Based on SDS dated:** 25 Mar 2010

**End of Report**