1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: HYSOL EA 9359.3 PART B
Synonym(s): NSN: 8040-01-478-8114 • NSN: XXXX-01-446-7381
9359.3 PART B • EA 9359.3 PART B

1.2 Uses and uses advised against

Use(s): ADHESIVE • 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 1B
- Skin Sensitization: Category 1
- Serious Eye Damage / Eye Irritation: Category 1
- Acute Toxicity: Inhalation: Category 4

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.

Prevention statement(s):
- 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.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s):
- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
2.3 Other Hazards
No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHENOL</td>
<td>108-95-2</td>
<td>203-632-7</td>
<td>1-5%</td>
</tr>
<tr>
<td>SUBSTITUTED PIPERAZINE</td>
<td>Not Available</td>
<td>Not Available</td>
<td>30-60%</td>
</tr>
<tr>
<td>BUTADIENE-PROPENENITRILE POLYMER</td>
<td>68683-29-4</td>
<td>614-706-7</td>
<td>10-30%</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL, DI(3-AMINOPROPYL)ETHER</td>
<td>4246-51-9</td>
<td>224-207-2</td>
<td>10-30%</td>
</tr>
<tr>
<td>ALCOHOL DERIVATIVE</td>
<td>Not Available</td>
<td>Not Available</td>
<td>5-10%</td>
</tr>
<tr>
<td>CYCLOALIPHATIC AMINE(S)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>5-10%</td>
</tr>
<tr>
<td>SILICA, AMORPHOUS - FUMED, CRYSALLINE FREE</td>
<td>112945-52-5</td>
<td>601-216-3</td>
<td>5-10%</td>
</tr>
</tbody>
</table>

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 on skin, remove any contaminated clothing, wash thoroughly with soap and water, then methylated spirit if available. Contact the 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
No information provided.

4.3 Immediate medical attention and special treatment needed
PHENOLS - CRESYLIC ACID - CHLOROPHENOLS: See First Aid details in the first instance. Establish airways and maintain respiration. Examine and treat for corrosive injury, methaemoglobinemia and liver damage.

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, 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
Product name: HYSOL EA 9359.3 PART B

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.
Do not heat above 100°C.

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. Shelf life: 1 year when
stored at 25°C.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fumed silica (respirable dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Phenol</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>4</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Biological limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>Determinant</th>
<th>Sampling time</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHENOL</td>
<td>ACGIH BEI</td>
<td>Total phenol in urine (with hydrolysis)</td>
<td>End of shift</td>
<td>250 mg/g creatinine</td>
</tr>
</tbody>
</table>

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
Product name: HYSOL EA 9359.3 PART B

**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**
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>VISCOUS BLUE PASTE</td>
</tr>
<tr>
<td>Odour</td>
<td>SLIGHT ODOR</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flash Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flammability</td>
<td>COMBUSTIBLE</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>INSOLUBLE</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
</tr>
</tbody>
</table>

9.2 Other information
No information provided.

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
Do not heat Part B at temperatures greater than 100°C. This product may self-react at higher temperatures, possibly releasing toxic gases. Exothermic polymerisation will occur with epoxy resin.

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

Health hazard summary
Corrosive - toxic. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. This product contains phenol which is strongly irritating and corrosive. Over exposure may result in spleen, pancreas, liver, kidney and lung damage. Potential sensitising agent. Individuals with pre-existing respiratory impairment (eg asthmatics) or skin sensitivities may be more susceptible to adverse health effects.

Eye
Corrosive. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

Inhalation
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.

Skin
Corrosive - toxic. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause discolouration of the skin. May be absorbed through skin with harmful effects. May cause sensitisation by skin contact.

Ingestion
Toxic - corrosive. Ingestion may result in extensive burns to the mouth and throat, liver and kidney damage, dark urine, bloody diarrhoea, convulsions and unconsciousness.

Toxicity data
PHENOL (108-95-2)
- LC50 (Inhalation): 177 mg/m³ (mouse)
- LD50 (Ingestion): 270 mg/kg (mouse)
- LD50 (Intraperitoneal): 127 mg/kg (rat)
- LD50 (Intravenous): 112 mg/kg (mouse)
- LD50 (Skin): 630 mg/kg (rabbit)
- LD50 (Subcutaneous): 344 mg/kg (mouse)
- LDLo (Ingestion): 10 mg/kg (infant)
- LDLo (Intraperitoneal): 300 mg/kg (guinea pig)
- LDLo (Intravenous): 180 mg/kg (rabbit)
- LDLo (Subcutaneous): 75 mg/kg (frog)
- TDLo (Skin): 16 g/kg (mouse)

DIETHYLENE GLYCOL, DI(3-AMINOPROPYL)ETHER (4246-51-9)
- LD50 (Ingestion): 4290 mg/kg (rat)
- LD50 (Skin): 2500 uL/kg (rabbit)

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
This material may cause harmful effects to aquatic organisms.

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
Avoid contaminating waterways and soil.
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

<table>
<thead>
<tr>
<th>Land Transport (ADG)</th>
<th>Sea Transport (IMDG/IMO)</th>
<th>Air Transport (IATA/ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>2735</td>
<td>2735</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
<td></td>
</tr>
<tr>
<td>14.3 Transport hazard classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DG Class</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Subsidiary risk(s)</td>
<td>None Allocated</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>None Allocated</td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazchem Code</td>
<td>2X</td>
<td></td>
</tr>
<tr>
<td>EMS</td>
<td>F-A, S-B</td>
<td></td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

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

Poison schedule  Classified as a Schedule 6 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications  C - Corrosive
                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.

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
                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.

Product name  HYSOL EA 9359.3 PART B
### 15.2 Chemical safety assessment

No information provided.

### 16. OTHER INFORMATION

#### Additional information

This product is used in conjunction with EA 9359.3 Part A. Please consult the appropriate ChemAlert report prior to use.

**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.

**AMINE:** CAUTION: THIS PRODUCT CONTAINS AN AMINE. DO NOT ADD NITRITES or other NITROSATING AGENTS to this product due to the potential for NITROSAMINE formation. Nitrosamines are potent carcinogens and some have been shown to cause severe acute (heart, brain, blood, liver - kidney) damage as well as chronic effects (reproductive effects, liver - lung and kidney tumours).

**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/m³**: 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)
Product name: HYSOL EA 9359.3 PART B

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.

Prepared By

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Date Printed: 06 Mar 2015
Based on SDS dated: 04 May 2011

End of Report