1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A
Synonym(s) NSN: 8040-00-145-0432 (PART A) • PRODUCT ID: BMS 5-95 TYICL4
10-9142-0 • KIT COMPONENT • 10-9143-8 • KIT COMPONENT • 11-3198-6 • DOCUMENT ID • 3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART A) (FORMERLY) • 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY (PART B) • 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A
• 62-2216-0540-5, 62-2216-5440-3, 62-2216-6440-2, 9087552, 9114259 • PRODUCT ID • 62-2217-8540-5 • PRODUCT ID • SCOTCH-WELD 2216 B/A PART A GREY EPOXY ADHESIVE (FORMERLY)

1.2 Uses and uses advised against
Use(s) ACCELERATOR • ADHESIVE • EPOXY RESIN SYSTEM • INDUSTRIAL APPLICATIONS • TWO COMPONENT EPOXY SYSTEM

1.3 Details of the supplier of the safety data sheet
Supplier name 3M AUSTRALIA PTY LIMITED
Address Building A, 1 Rivett Road, North Ryde, NSW, Australia, 2113
Telephone 136 136
Fax (02) 9498 9666
Email productinfo.au@mmm.com
Website http://www.3m.com/intl/au/

1.4 Emergency telephone number(s)
Emergency 1800 097 146

1.5 Details of alternative supplier(s) of the product
Supplier name: 3M NEW ZEALAND
Address 94 Apollo Drive, Albany, Auckland, 0632
Phone: +64 9 477 4040
Emergency: (Emergency) 0800 764 766
Email: innovation@nz.mmm.com
Website: http://solutions.3mnz.co.nz/wps/portal/3M/en_NZ/World/Wide/

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
GHS Classification(s) Skin Corrosion/Irritation: Category 2
Skin Sensitization: Category 1
Serious Eye Damage / Eye Irritation: Category 1

2.2 Label elements
Signal word DANGER
Pictograms

Hazard statement(s)
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Prevention statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
Product name: 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A

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.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment is advised - see first aid instructions.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before re-use.
- P363 Wash contaminated clothing before reuse.

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>&lt;0.75%</td>
</tr>
<tr>
<td>ALIPHATIC POLYMER DIAMINE</td>
<td>68911-25-1</td>
<td>614-773-2</td>
<td>40-70%</td>
</tr>
<tr>
<td>KAOLIN</td>
<td>1332-58-7</td>
<td>310-194-1</td>
<td>30-60%</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL, Di(3-AMINOPROPYL)ETHER</td>
<td>4246-51-9</td>
<td>224-207-2</td>
<td>7-13%</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 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.

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 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
None allocated

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 as a Class C1 Combustible Liquid (AS1940).

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Kaolin (Inspirable dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
</tr>
<tr>
<td>Kaolin (Respirable dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
</tr>
<tr>
<td>Toluene</td>
<td>SWA (AUS)</td>
<td>50</td>
<td>191</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>TOLUENE</td>
<td>ACGIH BEI</td>
<td>o-Cresol in urine</td>
<td>End of shift</td>
<td>0.02 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in urine</td>
<td>End of shift</td>
<td>0.03 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in blood</td>
<td>Prior to last shift of workweek</td>
<td>0.02 mg/L</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
- **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.
Product name: 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A

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>GREY LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>PUNGENT 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>&gt; 93°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flammability</td>
<td>CLASS C1 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>&lt; 27 psia @ 55.0°C</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>40000 cP to 80000 cP</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>1.26</td>
</tr>
</tbody>
</table>

9.2 Other information

% Volatiles: 0 %

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

Health hazard summary
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.

Eye
Slightly corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible burns. Risk of serious damage to eyes.

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
Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause sensitisation by skin contact.

Ingestion
Slightly corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.

Toxicity data

TOLUENE (108-88-3)
- LC50 (Inhalation): 400 ppm/24 hours (mouse)
- LCLo (Inhalation): 1600 ppm (guinea pig)
- LD50 (Ingestion): 636 mg/kg (rat)
- LD50 (Skin): 14100 µL/kg (rabbit)
- LDLo (Ingestion): 50 mg/kg (human)

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

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

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA
Product name: 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A

14.1 UN number: None Allocated
14.2 UN proper shipping name: None Allocated
14.3 Transport hazard classes:
  - DG Class: None Allocated
  - Subsidiary risk(s): None Allocated
14.4 Packing group: None Allocated
14.5 Environmental hazards: None Allocated
14.6 Special precautions for user: None Allocated

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:
  - Xi - Irritant
Risk phrases:
  - R38: Irritating to skin.
  - R41: Risk of serious damage to eyes.
  - R43: May cause sensitisation by skin contact.
Safety phrases:
  - S24: Avoid contact with skin.
  - 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.

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

Conflict of interest:
This product is used in conjunction with 3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY (PART B). Please consult the appropriate ChemAlert report before use.

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.
Product name

3M SCOTCH-WELD EPOXY ADHESIVE EC-2216, GRAY, PART A

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)
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.

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End of Report