1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

Synonym(s) *NSN: 8040-00-145-0432 (PART B) • NSN: XXXX-00-145-0019 (PART B) • PRODUCT ID: BMS 5-95 TYICL4*

10-3167-3 - DOCUMENT ID • 10-9142-0 - KIT COMPONENT • 62-2216-0540-5, 62-2216-5440-3, 62-2216-6440-2, 62-2216-7440-1, 9087552, 9114259 - 3M PRODUCT ID • 62-2216-4130-1, 62-2216-5930-3, 62-2216-6830-4, 62-2216-8530-8, 62-2216-9530-7 - PRODUCT CODES • 62-2216-8540-7 - 3M PRODUCT ID • EC-2216 B • SCOTCH-WELD 2216 B/A PART B GREY EPOXY ADHESIVE (FORMERLY) • SCOTCH-WELD EPOXY ADHESIVE EC-2216, GREY (PART B)

1.2 Uses and uses advised against

Use(s) BASE • EPOXY 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**
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 2A
Aquatic Toxicity (Chronic): Category 2

2.2 Label elements

Signal word **WARNING**

Pictograms

Hazard statement(s)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Prevention statement(s)

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

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.
P273	Avoid release to the environment. This statement does not apply where this is the intended use.
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.
P321	Specific treatment is advised - see first aid instructions.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
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	70-80%
KAOLIN	1332-58-7	310-194-1	20-30%

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.

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. May evolve aldehydes and ketones 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.

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

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 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/m³	ppm	mg/m³
Kaolin (Inspirable dust)	SWA (AUS)	--	10	--	--
Kaolin (Respirable dust)	SWA (AUS)	--	2	--	--

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

Appearance	OFF-WHITE LIQUID
Odour	SLIGHT EPOXY ODOUR
Odour Threshold	NOT AVAILABLE
pH	NOT AVAILABLE
Melting Point	NOT AVAILABLE
Boiling Point	> 121°C
Flash Point	248°C (cc)
Evaporation Rate	NOT AVAILABLE
Flammability	CLASS C2 COMBUSTIBLE
Upper Explosion Limit	NOT AVAILABLE
Lower Explosion Limit	NOT AVAILABLE
Vapour Pressure	< 0.1 mm Hg @ 25°C
Vapour Density	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Partition Coefficient	NOT AVAILABLE
Autoignition Temperature	NOT AVAILABLE
Decomposition Temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE
Specific Gravity	1.330

9.2 Other information

% Volatiles	0.06 %

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, hydrocarbons) when heated to decomposition. May evolve aldehydes and ketones when heated to decomposition.

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary 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.

Eye Irritant. Contact may result in irritation, lacrimation, pain and redness.

Inhalation 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.

Skin Irritant. Contact may result in irritation, redness, rash and dermatitis. May cause sensitisation by skin contact.

Ingestion May be harmful. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea.

Toxicity data BISPHENOL-A-(EPICHLORHYDRIN), REACTION PRODUCT (25068-38-6)
LD50 (Ingestion): 2 - 19 g/kg (rat)
LD50 (Intraperitoneal): 2.2 g/kg (rat)
LD50 (Skin): > 20 mL/kg (rabbit)

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

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

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

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	None Allocated	None Allocated	None Allocated
14.2 UN proper shipping name	None Allocated	None Allocated	None Allocated

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

14.3 Transport hazard classes			
DG Class	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
14.4 Packing group	None Allocated	None Allocated	None Allocated
14.5 Environmental hazards		None Allocated	
14.6 Special precautions for user			
Hazchem Code	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 N - Dangerous for the environment
Xi - Irritant

Risk phrases	R36/38:	Irritating to eyes and skin.
	R43:	May cause sensitisation by skin contact.
	R51/53:	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
Safety phrases	S2:	Keep out of reach of children.
	S24/25:	Avoid contact with skin and eyes.
	S28:	After contact with skin, wash immediately with plenty of water.
	S37/39:	Wear suitable gloves and eye/face protection.
	S51:	Use only in well ventilated areas.
	S61:	Avoid release to the environment. Refer to special instructions/safety data sheets.

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 3M Scotch-Weld Epoxy Adhesive 2216, Grey (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 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/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.

Product name **3M SCOTCH-WELD EPOXY ADHESIVE 2216, GREY (PART B)**

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End of Report