1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **3M SCOTCH-WELD NITRILE HIGH PERFORMANCE RUBBER AND GASKET ADHESIVE**

Synonym(s) *NSN: 8040-00-266-0856 • NSN: XXXX-00-390-7959*

19-9812-9 - DOCUMENT ID • 3M EC-847 (FORMERLY) • 62-0847-6540-3 - PRODUCT ID • NITRILE HIGH PERFORMANCE RUBBER AND GASKET ADHESIVE

1.2 Uses and uses advised against

Use(s) ADHESIVE

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)

Flammable Liquids: Category 2

Skin Corrosion/Irritation: Category 2

Serious Eye Damage / Eye Irritation: Category 2A

Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

Toxic to Reproduction: Category 2

Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2

Aquatic Toxicity (Chronic): Category 2

Repeated exposure may cause skin dryness or cracking

2.2 Label elements

Signal word **DANGER**

Pictograms

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.

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H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
AUH066	Repeated exposure may cause skin dryness or cracking

Prevention statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
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)

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.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment is advised - see first aid instructions.
P362	Take off contaminated clothing and wash before re-use.
P370 + P378	In case of fire: Use appropriate media for extinction (applies if water increases risk).
P391	Collect spillage.

Storage statement(s)

P403 + P233	Store in a well-ventilated place. Keep container tightly closed (applies if the substance is volatile so as to generate a hazardous atmosphere).
P403 + P235	Store in a well-ventilated place. Keep cool.
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
ACETONE	67-64-1	200-662-2	40-70%
ZINC OXIDE	1314-13-2	215-222-5	1-5%
2-PROPENENITRILE-1,3-BUTADIENE RUBBER	9003-18-3	618-357-1	10-30%
GLYCEROL ESTERS, ROSIN ACIDS	8050-31-5	232-482-5	7-13%
P-TERT-BUTYLPHENOL, FORMALDEHYDE RESIN	25085-50-1	607-533-3	5-10%
SALICYLIC ACID	69-72-7	200-712-3	1-5%
BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE	68411-46-1	270-128-1	0.1-1%

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. 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. Also give water to drink.
First aid facilities	Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness. Chronic exposure to solvents may result in liver, kidney and central nervous system (CNS) damage.

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

Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, pilot lights, heaters, naked lights, etc when handling. Earth containers when dispensing fluids. May evolve nitrogen oxides 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

●3YE

●	Alcohol resistant foam is the preferred firefighting medium
3	Foam
Y	Self Contained Breathing apparatus and protective gloves.
E	Evacuation of people in the vicinity of the incident should be considered.

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.

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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, preferably flammables store, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should have appropriate ventilation and fire protection 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
Acetone	SWA (AUS)	500	1185	1000	2375
Formaldehyde	SWA (AUS)	1	1.2	2	2.5
Zinc oxide (dust)	SWA (AUS)	--	10	--	--
Zinc oxide (fume)	SWA (AUS)	--	5	--	10

Biological limits

Ingredient	Reference	Determinant	Sampling time	BEI
ACETONE	ACGIH BEI	Acetone in urine	End of shift	-
	ACGIH BEI	Aniline released from haemoglobin in blood	End of shift	-
	ACGIH BEI	p-Aminophenol in urine	End of shift	50 mg/L

8.2 Exposure controls

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE

Eye/Face Wear splash-proof goggles.

Hand Wear PVA or viton (R) gloves.

Body Wear coveralls.

Respiratory Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. At high vapour levels, wear an Air-line respirator. Where the boiling point is < 65°C, use an AX filter type.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	DARK BROWN LIQUID
Odour	SOLVENT ODOUR
Odour Threshold	NOT AVAILABLE
pH	NOT AVAILABLE
Melting Point	NOT AVAILABLE

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Boiling Point	> 56°C
Flash Point	-20°C (cc)
Evaporation Rate	1.9
Flammability	HIGHLY FLAMMABLE
Upper Explosion Limit	12.8 %
Lower Explosion Limit	2.6 %
Vapour Pressure	< 185 mm Hg @ 20°C
Vapour Density	2 (Air = 1)
Solubility (water)	SLIGHTLY SOLUBLE
Partition Coefficient	NOT AVAILABLE
Autoignition Temperature	465°C
Decomposition Temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE
Specific Gravity	0.91

9.2 Other information

% Volatiles	60 % to 70 %

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

Polymerization will not 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), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary	Harmful - 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. Chronic exposure to some solvents may result in liver, kidney and central nervous system (CNS) damage.
Eye	Irritant. Contact may result in irritation, lacrimation, pain and redness.
Inhalation	Harmful - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and headache. High level exposure may result in dizziness, drowsiness, breathing difficulties and unconsciousness. Chronic exposure to some solvents may result in liver, kidney and central nervous system (CNS) damage.
Skin	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects.
Ingestion	Harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.
Toxicity data	ACETONE (67-64-1) LC50 (Inhalation): 44000 mg/m³/4 hours (mouse) LCLo (Inhalation): 1600 ppm/4 hours (rat) LD50 (Ingestion): 3000 mg/kg (mouse) LD50 (Intraperitoneal): 1297 mg/kg (mouse) LD50 (Intravenous): 5500 mg/kg (rat)

LD50 (Skin): > 9400 uL/kg (guinea pig)
LDLo (Ingestion): 8000 mg/kg (dog)
LDLo (Intraperitoneal): 500 mg/kg (rat)
LDLo (Intravenous): 1576 mg/kg (rabbit)
LDLo (Skin): 20 mL/kg (rabbit)
LDLo (Subcutaneous): 5000 mg/kg (guinea pig/dog)
TCLo (Inhalation): 500 ppm (human)
TDLo (Ingestion): 2857 mg/kg (man)

ZINC OXIDE (1314-13-2)
LC50 (Inhalation): 2500 mg/m³ (mouse)
LD50 (Ingestion): 7950 mg/kg (mouse)
LD50 (Intraperitoneal): 240 mg/kg (rat)
LDLo (Ingestion): 500 mg/kg (human)
TCLo (Inhalation): 600 mg/m³ (human)

P-TERT-BUTYLPHENOL, FORMALDEHYDE RESIN (25085-50-1)
LC50 (Inhalation): 74 mg/m³ (mammal, phenol)
LD50 (Ingestion): 42 mg/kg (rat, formaldehyde)
LDLo (Ingestion): 10 mg/kg (infant, phenol)
TCLo (Inhalation): 14300 ppb/6H/2Y-I (mouse, formaldehyde)
TDLo (Ingestion): 300 mg/kg (rat, formaldehyde)
TDLo (Skin): 4 g/kg/24W (mouse, phenol)

SALICYLIC ACID (69-72-7)
LC50 (Inhalation): > 900 mg/m³ (rat)
LD50 (Ingestion): 400 mg/kg (cat)
LD50 (Intraperitoneal): 157 mg/kg (rat)
LD50 (Intravenous): 184 mg/kg (mouse)
LD50 (Skin): > 2000 mg/kg (rat)
LDLo (Subcutaneous): 6000 mg/kg (rabbit)
TDLo (Skin): 57 mg/kg (man)

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

Aliphatic hydrocarbons behave differently in the environment depending on their size. WATER: Light aliphatics volatilise rapidly from water (half life - few hours). Bioconcentration should not be significant. SOIL: Light aliphatics biodegrade quickly in soil and water, heavy aliphatics biodegrade very slowly. ATMOSPHERE: Vapour-phase aliphatics will degrade by reaction with hydroxyl radicals.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Wearing the protective equipment outlined, ensure all ignition sources are extinguished. For small quantities, absorb on paper, sand or similar and evaporate under a fume cupboard or open area. For large volumes, atomise into incinerator (mixing with more flammable solvent if required) or recycle by gravimetric separation, distilling & reusing. Contact the manufacturer/supplier for additional information (if required).

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

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

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	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	1133	1133	1133
14.2 UN proper shipping name		ADHESIVES containing flammable liquid	
14.3 Transport hazard classes			
DG Class	3	3	3
Subsidiary risk(s)	None Allocated	-	-
14.4 Packing group	II	II	II
14.5 Environmental hazards		None Allocated	
14.6 Special precautions for user			
Hazchem Code	●3YE		
EMS		F-E, S-D	

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
F - Highly flammable
N - Dangerous for the environment
Xi - Irritant
Xn - Harmful

Risk phrases

R11:	Highly flammable.
R36:	Irritating to eyes.
R51/53:	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
R66:	Repeated exposure may cause skin dryness or cracking.
R67:	Vapours may cause drowsiness and dizziness.

Safety phrases

S16:	Keep away from sources of ignition - No smoking.
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 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.

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and

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combustible liquids) for control procedures.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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

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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

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
Web: www.rmt.com.au

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End of Report