



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier

3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C

Product Identification Numbers

98-0400-5620-6

1.2. Recommended use and restrictions on use

Recommended use

Fire Barrier Mat

For Industrial or Professional use only.

1.3. Supplier's details

Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113

Telephone: 136 136

E Mail: productinfo.au@mmm.com

Website: www.3m.com.au

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

Carcinogenicity: Category 2.

2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

Signal word
WARNING!

Symbols
Health Hazard |

Pictograms



Hazard statements

H351 Suspected of causing cancer.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other assigned/identified product hazards

None known.

2.4. Other hazards which do not result in classification

Harmful to aquatic life.

Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Aluminium hydroxide	21645-51-2	60 - 90
Refractory Ceramic Fibers (RCF)	142844-00-6	10 - 30
Polymer	Trade Secret	3 - 7
Aluminum foil	7429-90-5	< 5
Stainless Steel (Type 304)	None	< 5
Water	7732-18-5	1 - 5
Silicon	7440-21-3	< 2
Chromium	7440-47-3	< 0.1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Material will not burn.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect spilled material using a vacuum cleaner with a High Efficiency Particulate Air (HEPA) filter. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
CERAMIC FIBERS	142844-00-6	ACGIH	TWA(as fiber):0.2 fiber/cc	A2: Suspected human carcin.
CERAMIC FIBERS	142844-00-6	Australia OELs	TWA(as fiber)(8 hours):0.5 fibers/ml	
Aluminum, insoluble compounds	21645-51-2	ACGIH	TWA(respirable fraction):1 mg/m ³	A4: Not class. as human carcin
Aluminum foil	7429-90-5	ACGIH	TWA(respirable fraction):1 mg/m ³	A4: Not class. as human carcin
Aluminum foil	7429-90-5	Australia OELs	TWA(Al, welding fume)(8 hours):5 mg/m ³ ;TWA(as Al pyrophoric powder)(8 hours):5 mg/m ³ ;TWA(as dust)(8 hours):10 mg/m ³	
Silicon	7440-21-3	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m ³	
Chromium	7440-47-3	ACGIH	TWA(as Cr):0.5 mg/m ³	A4: Not class. as human carcin
Chromium	7440-47-3	Australia OELs	TWA(8 hours): 0.5 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for particulates.

For questions about suitability for a specific application, consult with your respirator manufacturer.

Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Roll of material
Appearance/Odour	White mat with or without metal foil on one side, no odor
Odour threshold	<i>Not applicable.</i>
Melting point/Freezing point	<i>No data available.</i>
Boiling point/Initial boiling point/Boiling range	<i>Not applicable.</i>
Flash point	No flash point
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Density	0.866 g/cm ³
Relative density	<i>No data available.</i>
Water solubility	Nil
Solubility- non-water	<i>Not applicable.</i>
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>Not applicable.</i>
VOC less H₂O & exempt solvents	< 10 g/l

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3. Conditions to avoid

None known.

10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Substance

Condition

None known.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Mechanical skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Eye contact

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Ingestion

Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation. Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Additional Health Effects:

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
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3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C

Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aluminium hydroxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium hydroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Refractory Ceramic Fibers (RCF)	Dermal		LD50 estimated to be > 5,000 mg/kg
Refractory Ceramic Fibers (RCF)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Polymer	Ingestion	Rat	LD50 > 2,000 mg/kg
Aluminum foil	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum foil	Ingestion		LD50 estimated to be > 5,000 mg/kg
Aluminum foil	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.888 mg/l
Silicon	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.08 mg/l
Silicon	Ingestion	Rat	LD50 3,160 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aluminium hydroxide	Rabbit	No significant irritation
Polymer	Rabbit	Minimal irritation
Aluminum foil	Rabbit	No significant irritation
Silicon	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Aluminium hydroxide	Rabbit	No significant irritation
Polymer	Professional judgement	Mild irritant
Aluminum foil	Rabbit	No significant irritation
Silicon	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Aluminium hydroxide	Guinea pig	Not sensitizing
Aluminum foil	Guinea pig	Not sensitizing

Respiratory Sensitisation

Name	Species	Value
Aluminum foil	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Aluminum foil	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Aluminium hydroxide	Not specified.	Multiple animal species	Not carcinogenic
Refractory Ceramic Fibers (RCF)	Inhalation	Multiple animal species	Carcinogenic.

3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Aluminium hydroxide	Ingestion	Not toxic to development	Rat	NOAEL 768 mg/kg/day	during organogenesis

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Refractory Ceramic Fibers (RCF)	Inhalation	pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 36 fibers/cc	12 months
Refractory Ceramic Fibers (RCF)	Inhalation	heart liver kidney and/or bladder	All data are negative	Rat	NOAEL 187 fibers/cc	18 months
Aluminum foil	Inhalation	nervous system respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Exposure Levels

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects

Not determined.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity**Acute aquatic hazard:**

GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
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3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C

Aluminium hydroxide	21645-51-2	Fish	Laboratory	96 hours	LC50	>100 mg/l
Aluminium hydroxide	21645-51-2	Green Algae	Laboratory	72 hours	EC50	>100 mg/l
Aluminium hydroxide	21645-51-2	Water flea	Laboratory	48 hours	EC50	>100 mg/l
Polymer	Trade Secret		Data not available or insufficient for classification			
Aluminum foil	7429-90-5		Data not available or insufficient for classification			
Chromium	7440-47-3		Data not available or insufficient for classification			
Refractory Ceramic Fibers (RCF)	142844-00-6		Data not available or insufficient for classification			
Silicon	7440-21-3		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Silicon	7440-21-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum foil	7429-90-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Refractory Ceramic Fibers (RCF)	142844-00-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Chromium	7440-47-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Water	7732-18-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium	21645-51-2	Data not	N/A	N/A	N/A	N/A

3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C

hydroxide		available or insufficient for classification				
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12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Refractory Ceramic Fibers (RCF)	142844-00-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Chromium	7440-47-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Water	7732-18-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon	7440-21-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum foil	7429-90-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium hydroxide	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes.

SECTION 14: Transport Information**Australian Dangerous Goods Code (ADG) - Road/Rail Transport**

UN No.: Not applicable.

3M™ Interam™ Endothermic Mat E-5A-4, E-54A, E-54C

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

Hazchem Code: Not applicable

IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport

UN No.: Not applicable.

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: Not applicable.

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

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

Australian Inventory Status:

This product is defined as an article under the Industrial Chemicals (Notification and Assessment) Act 1989, as amended, and is exempt from inventory requirements under the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

SECTION 16: Other information

Revision information:

Conversion to GHS format SDS.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au