

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[™] Abrasive Products, Silver Cut-Off Wheels T41, T42

Product Identification Numbers

 UU-0095-9688-1
 UU-0095-9690-7
 UU-0095-9711-1
 UU-0095-9712-9
 UU-0095-9714-5

 UU-0096-1040-1
 XC-9915-8491-0
 XC-9915-8492-8
 XC-9915-8493-6
 XC-9915-8494-4

XC-9915-8495-1

1.2. Recommended use and restrictions on use

Recommended use

Abrasive Product

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 NOT classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

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

2.1. Classification of the substance or mixture

Not applicable.

2.2. Label elements

Signal word

Not applicable.

Symbols

Not applicable.

Pictograms

Not applicable.

2.3. Other assigned/identified product hazards

None known.

2.4. Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Ceramic Aluminum Oxide / Aluminum	1344-28-1	55 - 75
Oxide Mineral Blend (non-fibrous)		
Inorganic Fluoride	60304-36-1	7 - 30
Silicon Carbide	409-21-2	0 - 25
Magnesium oxide	Trade Secret	0.1 - 3
Titanium dioxide	Trade Secret	0.5 - 1.5
Lubricant	Trade Secret	0 - 0.5
Cured resin	Mixture	5 - 40
Fiberglass Mesh Scrim	Mixture	1 - 7

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 are concerned, get medical advice.

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

Substance

Carbon monoxide. Carbon dioxide.

Condition

During combustion.

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

Observe precautions from other sections.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Not applicable.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. Damaged product can break apart during use and cause serious injury to face or eyes. Check product for damage such as cracks or nicks prior to use. Replace if damaged. Always wear eye and face protection when working at sanding or grinding operations or when near such operations. Combustible dust may form by action of this product on another material (substrate). Dust generated from the substrate during use of this product may be explosive if in sufficient concentration with an ignition source. Dust deposits should not be allowed to accumulate on surfaces because of the potential for secondary explosions.

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
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1	A4: Not class. as human
			mg/m3	carcin
Ceramic Aluminum Oxide /	1344-28-1	Australia OELs	TWA(Inspirable dust)(8	
Aluminum Oxide Mineral Blend			hours):10 mg/m3	
(non-fibrous)				
Silicon Carbide	409-21-2	Australia OELs	TWA(Inspirable dust)(8	

			hours):10 mg/m3	
Fluorides	60304-36-1	ACGIH	TWA(as F):2.5 mg/m3	A4: Not class. as human carcin
Fluorides	60304-36-1	Australia OELs	TWA(as F)(8 hours): 2.5 mg/m3	
Lubricant	Trade Secret	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
Lubricant	Trade Secret	Australia OELs	TWA(as mist)(8 hours):5 mg/m3	
Magnesium oxide	Trade Secret	ACGIH	TWA(inhalable fraction):10 mg/m3	A4: Not class. as human carcin
Magnesium oxide	Trade Secret	Australia OELs	TWA(as fume)(8 hours):10 mg/m3	
Titanium dioxide	Trade Secret	ACGIH	TWA:10 mg/m³	A4: Not class. as human carcin
Titanium dioxide	Trade Secret	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	

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. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. Provide local exhaust at process emission sources to control exposure near the source and to prevent the escape of dust into the work area. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

8.2.2. Personal protective equipment (PPE)

Eye/face protection

To minimise the risk of injury to face and eyes, always wear eye and face protection when working at sanding or grinding operations or when near such operations. 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

Wear appropriate gloves to minimise risk of injury to skin from contact with dust or physical abrasion from grinding or sanding.

Respiratory protection

Assess exposure concentrations of all materials involved in the work process. Consider material being abraded when

determining the appropriate respiratory protection. Select and use appropriate respirators to prevent inhalation overexposure. 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. Appearance/Odour Solid abrasive product **Odour threshold** Not applicable. pН Not applicable. Melting point/Freezing point Not applicable. Boiling point/Initial boiling point/Boiling range *Not applicable. Not applicable.* Flash point Not applicable. **Evaporation rate** Flammability (solid, gas) Not classified Flammable Limits(LEL) Not applicable. *Not applicable.* Flammable Limits(UEL) Vapour pressure Not applicable. Not applicable. Vapour density **Density** Not applicable. Relative density Not applicable. Water solubility Not applicable. Not applicable. Solubility- non-water Not applicable. Partition coefficient: n-octanol/water Not applicable. Autoignition temperature Not applicable. **Decomposition temperature** Not applicable. Viscosity

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Molecular weight

Percent volatile

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.

No data available.

Not applicable.

10.6 Hazardous decomposition products

Substance
None known.

Condition

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

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

Skin contact

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

Eve contact

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

No health effects are expected.

Additional information:

- This document covers only the 3M product. For complete assessment, when determining the degree of hazard, the material being abraded must also be considered. Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

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
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Ceramic Aluminum Oxide /	Ingestion	Rat	LD50 > 5,000 mg/kg

Aluminum Oxide Mineral Blend (non-fibrous)			
Inorganic Fluoride	Dermal	Rabbit	LD50 > 2,000 mg/kg
Inorganic Fluoride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 1.2 mg/l
Inorganic Fluoride	Ingestion	Rat	LD50 2,150 mg/kg
Silicon Carbide	Dermal	Rat	LD50 > 2,000 mg/kg
Silicon Carbide	Ingestion	Rat	LD50 > 2,000 mg/kg
Magnesium oxide	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Magnesium oxide	Ingestion	Rat	LD50 3,870 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Lubricant	Dermal	Rabbit	LD50 > 2,000 mg/kg
Lubricant	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	Rabbit	No significant irritation
Inorganic Fluoride	Rabbit	No significant irritation
Silicon Carbide	Rat	No significant irritation
Magnesium oxide	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Lubricant	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	Rabbit	No significant irritation
Inorganic Fluoride	Rabbit	Corrosive
Silicon Carbide	Professional judgement	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Lubricant	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Titanium dioxide	Human and animal	Not classified
Lubricant	Guinea pig	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	In Vitro	Not mutagenic
Magnesium oxide	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic

Lubricant In Vitro Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Ceramic Aluminum Oxide /	Inhalation	Rat	Not carcinogenic
Aluminum Oxide Mineral Blend			
(non-fibrous)			
Magnesium oxide	Not specified.	Human and animal	Some positive data exist, but the data
			are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal	Not carcinogenic
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Lubricant	Dermal	Mouse	Not carcinogenic
Lubricant	Inhalation	Multiple animal	Not carcinogenic
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Inorganic Fluoride	Ingestion	Not classified for	Mouse	NOAEL 100	during
		development		mg/kg/day	organogenesis
Lubricant	Ingestion	Not classified for	Rat	NOAEL	13 weeks
		female reproduction		4,350	
				mg/kg/day	
Lubricant	Ingestion	Not classified for	Rat	NOAEL	13 weeks
		male reproduction		4,350	
				mg/kg/day	
Lubricant	Ingestion	Not classified for	Rat	NOAEL	during gestation
		development		4,350	
				mg/kg/day	

Lactation

Name	Route	Species	Value
Inorganic Fluoride	Ingestion	Rat	Not classified for effects on or via
			lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

specific rurge	t Organ Tometty	single exposur	<u> </u>			
Name	Route	Target	Value	Species	Test result	Exposure
		Organ(s)				Duration
Magnesium	Inhalation	respiratory	Not classified	Human	NOAEL Not	
oxide		system			available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ceramic Aluminum Oxide / Aluminum Oxide Mineral Blend (non-fibrous)	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Ceramic Aluminum Oxide /	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

Aluminum Oxide Mineral Blend (non-fibrous)						
Inorganic Fluoride	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.003 mg/l	28 days
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Lubricant	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
Lubricant	Ingestion	liver immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days

Aspiration Hazard

Name	Value	
Lubricant	Aspiration hazard	

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:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Ceramic	1344-28-1		Experimental	96 hours	LC50	>100 mg/l
Aluminum						
Oxide /						
Aluminum						
Oxide Mineral						
Blend (non-						
fibrous)						
Ceramic	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l

Aluminum	1				1	1
Oxide /						
Aluminum						
Oxide Mineral						
Blend (non-						
fibrous)						
Ceramic	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminum	1344-20-1	w ater frea	Experimental	46 110015	LC30	100 mg/1
Oxide /						
Aluminum						
Oxide Mineral						
Blend (non-						
fibrous)						
Ceramic	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Aluminum		or con ungue	2.19 •1.111 •1.11	7 = 110 415	1,020	100 mg/1
Oxide /						
Aluminum						
Oxide Mineral						
Blend (non-						
fibrous)						
Inorganic	60304-36-1	Water flea	Experimental	48 hours	EC50	22.8 mg/l
Fluoride						
Silicon Carbide		Water flea	Experimental	22 days	NOEC	100 mg/l
Magnesium	Trade Secret		Data not			
oxide			available or			
			insufficient for			
			classification			
Titanium	Trade Secret	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
dioxide						
Titanium	Trade Secret	Fathead	Experimental	96 hours	LC50	>100 mg/l
dioxide		minnow				
Titanium	Trade Secret	Water flea	Experimental	48 hours	EC50	>100 mg/l
dioxide						
Titanium	Trade Secret	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
dioxide						
Lubricant	Trade Secret	Water flea	Estimated	48 hours	Effect Level	>100 mg/l
					50%	
Lubricant	Trade Secret	Bluegill	Experimental	96 hours	Lethal Level	>100 mg/l
					50%	
Lubricant	Trade Secret	Green algae	Estimated	72 hours	No obs Effect	>100 mg/l
					Level	
Lubricant	Trade Secret	Water flea	Estimated	21 days	No obs Effect	>100 mg/l
					Level	

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Ceramic	1344-28-1	Data not			N/A	
Aluminum		available-				
Oxide /		insufficient				
Aluminum						
Oxide Mineral						
Blend (non-						
fibrous)						
Inorganic	60304-36-1	Data not			N/A	

Fluoride		available-				
		insufficient				
Silicon Carbide	409-21-2	Data not			N/A	
		available-				
		insufficient				
Magnesium	Trade Secret	Data not			N/A	
oxide		available-				
		insufficient				
Titanium	Trade Secret	Data not			N/A	
dioxide		available-				
		insufficient				
Lubricant	Trade Secret	Experimental	28 days	CO2 evolution	0 % weight	OECD 301B - Modified
		Biodegradation	-			sturm or CO2

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Ceramic Aluminum Oxide / Aluminum	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Oxide Mineral Blend (non- fibrous)		classification				
Inorganic Fluoride	60304-36-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon Carbide	409-21-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Magnesium oxide	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	Trade Secret	Experimental BCF-Carp	42 days	Bioaccumulatio n factor	9.6	Other methods
Lubricant	Trade Secret	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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: Not applicable.

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 is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

SECTION 16: Other information

Revision information:

Initial issue.

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

3M TM Abrasive Products, Silver Cut-Off Wheels T41, T42
regulations exemptions for some solvents.
3M Australia SDSs are available at www.3m.com.au

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