#### **M4670 PART A**

#### **Barnes Products P/L**

Chemwatch: **5254-97**Version No: **6.1** 

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

#### Chemwatch Hazard Alert Code: 1

Issue Date: **18/03/2023**Print Date: **29/03/2023**S.GHS.AUS.EN.E

#### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### **Product Identifier**

Product name	M4670 PART A
Chemical Name	Not Applicable
Synonyms	ELASTOSIL M4670 PART A
Chemical formula	Not Applicable
Other means of identification	Not Available

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Industrial. Raw material for: elastomer products
	Use according to manufacturer's directions.

#### Details of the manufacturer or supplier of the safety data sheet

Registered company name	Barnes Products P/L	
Address	5 Greenhills Avenue Moorebank NSW 2170 Australia	
Telephone	+61 2 9793 7555	
Fax	+61 2 9793 7091	
Website	http://www.barnes.com.au/	
Email	sales@barnes.com.au	

#### **Emergency telephone number**

Association / Organisation	Barnes Products Pty Ltd	
Emergency telephone numbers	+61 2 9793 7555 Business Hours	
Other emergency telephone numbers	Poisons Information Centre 13 1126 after hours	

#### **SECTION 2 Hazards identification**

#### Classification of the substance or mixture

#### HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

#### Chemwatch Hazard Ratings

		Min	Max	
Flammability	1		į	
Toxicity	0			
Body Contact	1		1	0 = Minimum 1 = Low
Reactivity	1			2 = Moderate
Chronic	0			3 = High 4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Serious Eye Damage/Eye Irritation Category 2B
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

#### Label elements

Hazard pictogram(s) Not Applicable
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#### Hazard statement(s)

H320 Causes eye irritation.

#### Precautionary statement(s) Prevention

P264 Wash all exposed external body areas thoroughly after handling.

#### Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

#### Precautionary statement(s) Storage

Not Applicable

#### Precautionary statement(s) Disposal

Not Applicable

#### **SECTION 3 Composition / information on ingredients**

#### **Substances**

See section below for composition of Mixtures

#### **Mixtures**

CAS No	%[weight] Name		
14808-60-7	30-40	30-40 <u>silica crystalline - quartz</u>	
Not Available	NotSpec	otSpec Polydimethylsiloxane with functional groups and auxiliaries for addition cross-linking	
Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available			

#### **SECTION 4 First aid measures**

#### **Description of first aid measures**

Eye Contact	If this product comes in contact with the eyes:  Number Wash out immediately with fresh running water.  Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  Seek medical attention without delay; if pain persists or recurs seek medical attention.  Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.	
Skin Contact	If skin contact occurs:  Immediately remove all contaminated clothing, including footwear.  Flush skin and hair with running water (and soap if available).  Seek medical attention in event of irritation.	
Inhalation	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>	
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>	

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### **SECTION 5 Firefighting measures**

#### **Extinguishing media**

- ▶ Foam
- ▶ Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

#### Special hazards arising from the substrate or mixture

Fire Incompatibility

• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may

Advice for firefighters	
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Mists containing combustible materials may be explosive.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>silicon dioxide (SiO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> <li>May emit corrosive fumes.</li> </ul>

#### **SECTION 6 Accidental release measures**

**HAZCHEM** 

#### Personal precautions, protective equipment and emergency procedures

Not Applicable

result

See section 8

#### **Environmental precautions**

See section 12

#### Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	Moderate hazard.  Clear area of personnel and move upwind.  Alert Fire Brigade and tell them location and nature of hazard.  Wear breathing apparatus plus protective gloves.  Prevent, by any means available, spillage from entering drains or water course.  No smoking, naked lights or ignition sources.  Increase ventilation.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

#### **SECTION 7 Handling and storage**

Precautions	for sa	ife han	dling

	<ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <li>Avoid all personal contact, including inhalation.</li> </ul>
Safa handling	<ul> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> </ul>
Safe handling	<ul> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>Avoid smoking, naked lights or ignition sources.</li> </ul>
	Avoid contact with incompatible materials.
	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>No smoking, naked lights or ignition sources.</li> </ul>
Other information	<ul> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>Protect containers against physical damage and check regularly for leaks.</li> </ul>
	Observe manufacturer's storage and handling recommendations contained within this SDS.

#### Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Metal can or drum</li> <li>Packaging as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	Avoid reaction with oxidising agents

#### SECTION 8 Exposure controls / personal protection

#### **Control parameters**

#### Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	silica crystalline -	Silica - Crystalline: Quartz (respirable dust)	0.05 mg/m3	Not Available	Not Available	Not Available

#### **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
silica crystalline - quartz	0.075 mg/m3	33 mg/m3	200 mg/m3

Ingredient	Original IDLH	Revised IDLH
silica crystalline - quartz	25 mg/m3 / 50 mg/m3	Not Available

#### **Exposure controls**

# Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

### Appropriate engineering controls

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.

#### Individual protection measures, such as personal protective equipment











### Eye and face protection

- ► Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.

Skin protection

#### See Hand protection below

- Wear chemical protective gloves, e.g. PVC.
- ▶ Wear safety footwear or safety gumboots, e.g. Rubber

### Hands/feet protection

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

#### Body protection

See Other protection below

#### Other protection

- Overalls.
- P.V.C apron.
- Barrier cream.Skin cleansing cream.
- ► Eye wash unit.

#### Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

<sup>^ -</sup> Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

#### **SECTION 9 Physical and chemical properties**

#### Information on basic physical and chemical properties

Appearance	Appearance Beige liquid with no odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	~1.3
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>450
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	>200
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	120000 @ 25 degC
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>200	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

#### **SECTION 11 Toxicological information**

#### Information on toxicological effects

information on toxicological checks			
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.		
Ingestion	The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.		
Skin Contact	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.  Open cuts, abraded or irritated skin should not be exposed to this material  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.  Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.		
Eye There is some evidence to suggest that this material can cause eye irritation and damage in some persons.			

('hronic	As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or
	ingestion in any form, should be avoided by observing good occupational work practice.

M4670 PART A	TOXICITY	IRRITATION	
	Not Available	Not Available	
silica crystalline - quartz	TOXICITY	IRRITATION	
	Oral (Rat) LD50: 500 mg/kg <sup>[2]</sup>	Not Available	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS.		
	Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		

**WARNING:** For inhalation exposure <u>ONLY:</u> This substance has been classified by the IARC as Group 1: **CARCINOGENIC TO HUMANS** 

### SILICA CRYSTALLINE - QUARTZ

The International Agency for Research on Cancer (IARC) has classified occupational exposures to **respirable** (<5 um) crystalline silica as being carcinogenic to humans. This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease.

Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours.

\* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).

NOTE: the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	<b>~</b>	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

**Legend: X** − Data either not available or does not fill the criteria for classification

— Data available to make classification

#### **SECTION 12 Ecological information**

#### **Toxicity**

	Endpoint	Test Duration (hr)	Species	Value	Source
M4670 PART A	Not Available	Not Available	Not Available	Not Available	Not Available
silica crystalline - quartz	Endpoint	Test Duration (hr)	Species	Value	Source
	Not	Not Available	Not Available	Not	Not
	Available	Notification	Notivaliable	Available	Available

Legend

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

#### DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

#### **Bioaccumulative potential**

Ingredient	Bioaccumulation	
	No Data available for all ingredients	

#### Mobility in soil

Ingredient	Mobility	
	No Data available for all ingredients	

#### **SECTION 13 Disposal considerations**

#### Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- ▶ Reuse
- Recycling
- Disposal (if all else fails)

## Product / Packaging disposal

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Where in doubt contact the responsible authority.
- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ▶ Consult State Land Waste Authority for disposal.
- ▶ Bury or incinerate residue at an approved site.
- · Recycle containers if possible, or dispose of in an authorised landfill.

#### **SECTION 14 Transport information**

#### **Labels Required**

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

#### Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
silica crystalline - quartz	Not Available

#### Transport in bulk in accordance with the IGC Code

Product name	Ship Type	
silica crystalline - quartz	Not Available	

#### **SECTION 15 Regulatory information**

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

#### silica crystalline - quartz is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Model Work Health and Safety Regulations - Hazardous chemicals (other than lead) requiring health monitoring

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

#### **National Inventory Status**

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (silica crystalline - quartz)	
China - IECSC	Yes	

National Inventory	Status
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

#### **SECTION 16 Other information**

Revision Date	18/03/2023
Initial Date	13/06/2017

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
5.1	23/12/2022	Classification review due to GHS Revision change.
6.1	18/03/2023	Hazards identification - Classification, Identification of the substance / mixture and of the company / undertaking - Supplier Information, Identification of the substance / mixture and of the company / undertaking - Synonyms, Name

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### **Definitions and abbreviations**

PC-TWA: Permissible Concentration-Time Weighted Average

 ${\sf PC-STEL} : {\sf Permissible\ Concentration-Short\ Term\ Exposure\ Limit}$ 

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

ES: Exposure Standard
OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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