

Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

BROWNELL
L I M I T E D

Trade Name: Brownell Limited

Product No: Non-Indicating Silica Gel (White Gel)

Version No: MCS/107/MSDS - 06 / EN

Revision Date: 21.02.2017

Print Date: 21.02.2017

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

1.1 Product identifier

Trade name or designation of the mixture	Non-Indicating Silica Gel (White Gel)
Registered number	01-2119379499-16-0124
Synonyms Issue	Amorphous silicon dioxide * synthetic amorphous silica
Date Version	21 st February 2017
Number Revision	06
Date Supersedes	1 st May 2015

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

Identifier uses	Desiccant. For adsorption of moisture and prevention of corrosion and mould growth.
Uses advised against	None known

1.3 Details of the supplier of the safety data sheet

Supplier Name	Brownell Limited
Address	Unit 2, Abbey Road Industrial Park Commercial Way Park Royal London NW10 7XF
Country	UK
Telephone	+44 (0) 208 965 9281
Fax	+44 (0) 208 965 3239
Email	info@brownell.co.uk
Contact	Robert Beasley
Website	www.brownell.co.uk

1.4 Emergency telephone number +44 (0) 20 8838 8408 – (08:00 – 17:00) office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

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Hazard summary

Physical hazards	Not classified as a physical hazard.
Human health hazards	Not classified as a health hazard.
Environmental hazards	Not classified as an environmental hazard.
Specific hazards	This product has the potential for generation of respirable dust during handling and use. For additional information on inhalation hazards, see Section 11 of this safety data sheet. Slippery, can cause falls if walked on.
Main symptoms	Repeated exposure may cause skin dryness or cracking. Exposure to powder or dusts may be irritating to eyes, nose and throat.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Product identifier	Not applicable
Hazard statements	This substance does not meet the criteria for classification.
Precautionary statements	Not applicable
Supplemental hazard information	Not applicable
Special rules for supplemental label elements for certain mixtures	Not applicable
Additional labeling	Not applicable

2.3 Other hazards Not assigned

SECTION 3: Composition/information on ingredients

3.1 Substance

Substance name	Silicon dioxide (>98)
Index No	-
EC No	231-545-4
REACH Registration No	01-2119379499-16-0124
CAS No	(12926-00-8) 7631-86-9

Purity	Not Applicable
Synonyms	Amorphous silica dioxide * synthetic amorphous silica
Stabilisers	Not Applicable
Hazard Impurities	Not Applicable

3.2 Mixtures Not applicable

Additional information This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according.

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SECTION 4: First Aid measures

General information

If exposed or concerned: get medical advice/attention. Show this safety data sheet to the doctor in attendance.

4.1 Description of first aid measures

Inhalation

Remove to fresh air. Get medical attention for any breathing difficulty.

Skin contact

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Ingestion

Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Dust may irritate the respiratory tract, skin and eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use any means suitable for extinguishing surrounding fire.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

No unusual fire or explosion hazards noted

5.3 Advice for firefighters

Additional information

Wear self-contained breathing apparatus and protective clothing

SECTION 6: Accidental release measure

6.1 Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel

Protective equipment

Use personal protective equipment to avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.

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Emergency procedures	Spills: Sweep up and containerise for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Regulations require reporting spills and releases to soil, water and air in excess of reportable quantities. Ensure adequate ventilation.
6.2 Environmental precautions	No special environmental precautions required.
6.3 Methods and materials for containment and cleaning up	
For containment	Contain spillage, collect material using a vacuum cleaner equipped with HEPA filter and collect in suitable container for disposal.
For cleaning up	Sweep up or vacuum up spillage to avoid the generation of dust during clean-up and collect in suitable container for disposal.
6.4 Reference of other sections	
Additional information	For personal protection, see section 8 of the SDS. For waste disposal, see section 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Protective measures

Advice on safe handling

Wear appropriate personal protective equipment. Do not breathe dust from this material, avoid creating any dust and contact with skin and eyes as this may cause irritation.

Fire preventions

During handling electrostatic charges can accumulate, therefore static electricity and formation of sparks must be prevented, use proper bonding and/or grounding procedures.

Aerosol and dust generation preventions

Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed.

Environment precautions

No special environmental precautions required.

Advice on general occupational hygiene

Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Suitable for any general chemical storage area. Provide appropriate exhaust ventilation at places where dust is formed.

Packaging materials

Keep all material in an air-tight container, material is hygroscopic.

Requirements for storage rooms and vessels

All containers must be kept in a dry, cool place. Store in a well-ventilated place.

Hints on storage assembly:

Storage class

Not Available

Materials to avoid

Not Applicable

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7.3 Specific end uses

Recommendations

Not applicable

Specific end uses

The specified uses for this material are shown in section 1 of the document.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

8.1.1 Occupational exposure limits:

United Kingdom

Components	Type	Value	Form
Silicon dioxide (7631-86-9)	TWA	6 mg/m ³	Inhalable dust
		2.4 mg/m ³	Respirable dust

UK. EH40 Workplace Exposure Limited (WELs)

Components	Type	Value	Form
Nuisance dust. (CAS:N/A)	TWA	10 mg/m ³	Inhalable dust
		4 mg/m ³	Respirable dust

8.1.2 Biological limits values

No biological exposure limits noted for the ingredient(s).

8.1.3 Exposure limits at intended use

Not applicable

8.1.4 DNEL/PNEC-values

Substance name:

Non-Indicating Silica Gel (White Gel)

DNEL

Components	Type	Route	Value	Form
Silicon dioxide (7631-86-9)	Industry	Inhalation	4 mg/m ³	Respirable fraction

PNEC

Not Available

8.1.5 Risk management measures according to used control banding approach

Not applicable

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8.2 Exposure controls

8.2.1 Appropriate engineering controls: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust) and control of process conditions.

8.2.2 Personal protective equipment

Eye / Face protection:

Suitable eye protection Avoid contact with eyes. Wear safety glasses with side shields. (EN166). Use tight fitting goggles if dust is generated.

Skin protection:

Hand protection

Protective gloves are recommended. (EN374) Use protective gloves made of: PVC or other plastic material gloves.

Body protection

Normal work clothing (long Sleeves shirts and long pants) is recommended. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator type FFP2 or FFP3 (EN 149:2001)

Thermal hazards

None Known

8.2.3 Environmental exposure controls

Consumer exposure control

Consumer use:

Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Do not breathe dust. Do not get this material in contact with eyes.

Service Life

Not Known

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state: Solid

Form: Granules and beads

Colour: White

Odour: Odourless

Value

pH >3.5 as a suspension @100g/l in water

Melting Point/Freezing point 1710 °C (>3110 °F)

Boiling Point Not available

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Flash Point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Upper explosive limits	Not available
Lower explosive limits	Not available
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	Not available
Solubility(ies)	Insoluble
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not available
Viscosity, dynamic	Not available
Viscosity, cinematic	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2 Other information:

Physical hazards	
Explosives:	Not available
Flammable gases:	Not applicable
Flammable aerosols:	Not applicable
Oxidising gases:	Not available
Gases under pressure:	Not available
Flammable liquids:	Not applicable
Flammable solids:	Not applicable
Self-reactive substances and mixtures	Not available
Pyrophoric liquids	Not available
Pyrophoric solids	Not available
Self-heating substances and mixtures	Not available
Substances or mixtures which, in contact with water emit flammable gases	Not available
Oxidising liquids	Not available
Oxidising solids	Not available
Organic peroxides	Not available
Metal corrosion	Not available

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SECTION 10: Stability and reactivity

- 10.1 Reactivity** Material is stable under normal conditions.
- 10.2 Chemical stability** Material is stable under normal conditions and hygroscopic
- 10.3 Possibility of hazardous reactions** Hazardous polymerisation does not occur.
- 10.4 Conditions to avoid** Heat is evolved on contact with water. Avoid conditions which create dust.
- 10.5 Incompatible materials** None Known
- 10.6 Hazardous decomposition products** No dangerous reaction known under conditions of normal use.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity: Animal data

Substance	Effect dose / concentration	Value	Species
Acute oral toxicity	LD50	>5000mg/kg	Rat
Acute dermal toxicity	LD50	>5000mg/kg	Rabbit
Acute inhalation (gas)	-	-	-
Acute inhalation (vapour)	-	-	-
Acute inhalation (dust/mist)	LC0	>0.69mg/1 4.00 hours	Rat

Skin corrosion/irritation

Not classified. Not irritating: OECD 404

Eye damage/irritation

Not classified. Dust in the eyes will cause irritation.

Sensitisation to the respiratory tract/skin

Not classified. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Germ cell mutagenicity

Not available

Carcinogenicity

Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).

Reproductive toxicity

Not available

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Dust may irritate lungs. Amorphous silica is not known to cause silicosis.

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Physical, chemical and toxicological characteristics

In case of ingestion No data available

In case of skin contact Dust may have a drying effect on the skin.

In case of inhalation Synthetic amorphous silica gel has little adverse effect on lungs and does not produce significant disease or toxic effect when exposure is kept below the permitted limits. However existing medical conditions (eg asthma, bronchitis) may be aggravated by exposure to dust. Effects of dust may be greater and occur at lower levels of exposure in smokers compared to non-smokers.

In case of eye contact Dust may cause discomfort and mild irritation.

11.1.2 Mixtures No data available

SECTION 12: Ecological information

12.1 Toxicity

	Effect dose/- concentration	Value	Test duration	Species
Silicon Dioxide (7631-86-9)	NEOL	>1000 mg/l	72 hours	Algae
	EC50	>1000 mg/l	24 hours	Daphnia
	LC0	>1000 mg/l	96 hours	Zebra Danio

12.2 Persistence and degradability The product solely consists of inorganic compounds which are not biodegradable. The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential Does not bioaccumulate.

Environmental fate – Partition coefficient Not applicable. (inorganic substance).

12.4 Mobility in soil Insoluble and thus presents a low mobility in most soils.

12.5 Results of PBT and vPvB assessment Not Applicable

12.6 Other adverse effects Based on available data, there is no evidence of significant toxicity of Synthetic Amorphous Silica to environmental organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product / packaging disposal Material should be recycled if possible.
Dispose of in accordance with local regulations.

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Waste codes / waste designations according to EWC/AVV	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Packaging	Where possible recycling is preferred to disposal or incineration. Dispose of an unused product.
Waste treatment options	Collect and reclaim or dispose in sealed containers at licenced waste disposal waste disposal site. Dispose in accordance with all appliance regulations.
Other disposal recommendations	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

14.1 UN No.	Not available
14.2 UN Proper Shipping name	Not available
14.3 Transport hazard class(es)	Not available
Hazard label(s)	Not available
14.4 Packing group	Not available
14.5 Environmental hazards	Not available
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
Land transport (ADR/RID)	Not regarded as dangerous goods
Inland Waterway transport (ADN)	Not regarded as dangerous goods
Sea transport (IMDG)	Not regarded as dangerous goods
Air transport (ICAO-TI / IATA-DGR)	Not regarded as dangerous goods

SECTION 15: Regulatory information

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

15.1.1 EU regulations

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Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not Listed

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not Listed

Regulation (EC) No. 850/2004 on persistent organic pollutants Annex I

Not Listed

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals Annex I, part 1

Not Listed

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not Listed

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not Listed

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not Listed

Commission Decision 2000/479/EC on the implementation of a European pollutant emission registers (EPER)

Not Listed

Regulation (EC) No. 1907/2006 Article 59(1). Candidate List

Not Listed

15.1.2 National regulations

Not Available

15.2 Chemical safety assessment

Chemical Safety Assessment has been carried out.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes

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Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

SECTION 16: Other information

16.1 Indication of changes	MSDS first issued MSDS 1 st revision MSDS 2 nd revision MSDS 3 rd revision MSDS 4 th revision	5 th October 2000 20 th November 2008 12 th October 2011 4 th March 2014 1 st May 2015
16.2 Abbreviations and acronyms	Amorphous silica dioxide * synthetic amorphous silica	
16.3 Key literature references and sources for data	ECHA European Chemicals agency	
16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]	Regulation (EU) No. 1272/2008: Classification, labelling and packaging of substances and mixtures. The product does not need to be labelled in accordance with Directive 67/548/EEC. Not classified as a hazardous substance or mixture according to Directive 1999/45/EC.	
16.5 Relevant R-, H- and EUH-phrases (number and full text)	Not applicable	
16.6 Training advice	Not Available	
16.7 Further information	Not available.	

Disclaimer

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