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

Trade Name: Brownell Limited

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

**Version No:** MCS/107/MSDS – 08 / EN



**Revision Date:** 25.10.2021 **Print Date:** 25.10.2021

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

### 1.1 Product identifier

**Trade name or designation of** Non-Indicating Silica Gel (White Gel)

the mixture

**Registered number** 01-2119379499-16-0124

Synonyms Issue Amorphous silicon dioxide \* synthetic amorphous silica

**Date Version** 25<sup>th</sup> October 2021

**Number Revision** 08

**Date Supersedes** 16<sup>th</sup> June 2020

# 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** Neil Partridge

Website www.brownell.co.uk

# **1.4 Emergency telephone number** +44 (0) 208 965 9281 - (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 Regulation (EC) No 1272/2008 as amended

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

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

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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.

**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** 

**Preventation** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority

requirements.

Supplemental hazard

information

Not applicable

**Special rules for** Not applicable

supplemental label elements

for certain mixtures

Additional labeling Not applicable

### **2.3 Other hazards** Not known

### **SECTION 3: Compostition/information on ingredients**

## 3.1 Substance

Substance name	Amorphous Silica (>98)
Index No	-
EC No	231-545-4
<b>REACH Registration No</b>	01-2119379499-16-0124
CAS No	7631-86-9

**Purity** Not Applicable

**Synonyms** Amorphous silica dioxide \* synthetic amorphous silica

StabilisersNot ApplicableHazard ImpuritiesNot 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** 

**General Fire Hazards** Not a fire hazard. No unusual fire or explosion hazards noted.

5.1 Extinguishing media

Suitable extinguishing media

**Unsuitable extinguishing** 

media

Use fire-extinguishing media appropriate for surrounding materials. 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. Ensure adequate ventilation. Keep unnecessary personnel away.

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Spills: Sweep up and containerise for reclamation or disposal. Vacuuming **Emergency procedures** 

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** Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and materials for containment and cleaning up

Contain spillage, collect material using a vacuum cleaner equipped with For containment

HEPA filter and collect in suitable container for disposal.

Sweep up or vacuum up spillage to avoid the generation of dust during For cleaning up

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 Suitable for any general chemical storage area. Provide appropriate

storage conditions exhaust ventilation at places where dust is formed.

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

**Requirements for storage** 

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

rooms and vessels place.

Hints on storage assembly:

Not Available

Storage class 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
Amorphous Silica (CAS	TWA	$6 \text{ mg/m}^3$	Inhalable dust
7631-86-9)		$2.4 \text{ mg/m}^3$	Respirable dust

### **UK. EH40 Workplace Exposure Limited (WELs)**

Components	Type	Value	Form
General Dust	TWA	$10 \text{ mg/m}^3$	Inhalable dust
		$4 \text{ mg/m}^3$	Respirable dust

**8.1.2 Biological limits values** No biological exposure limits noted for the ingredient(s).

**8.1.3** Exposure limits at intended N

nse

Not applicable

8.1.4 DNEL/PNEC-values

**Substance name:** Non-Indicating Silica Gel (White Gel)

#### **DNEL**

Components	Type	Route	Value	Form
Amorphous Silica	Industry	Inhalation	$4 \text{ mg/m}^3$	Respirable fraction
(CAS 7631-86-9)				

**PNEC** Not Available

8.1.5 Risk management measures

according to used control banding approach

Not applicable

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

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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), control of process conditions and suitable respiratory protection must be worn, if OEL concentration levels are high.

**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) or dust mask.

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. Routinely wash work clothing and

protective equipment to remove contaminants.

Service Life Not Known

**SECTION 9: Physical and chemical properties** 

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Solid Form: Powder, 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

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

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Flash Point

Evaporation rate
Not applicable
Not applicable
Not available

Upper/lower flammability or

explosive limits

Upper explosive limits
Lower explosive limits
Vapour pressure
Vapour density
Relative density
Solubility(ies)
Partition coefficient:
Not applicable
Not applicable
Not available
Insoluble
Not available

n-octanol/water

Auto-ignition temperatureNot availableDecomposition temperatureNot availableViscosityNot applicableViscosity, dynamicNot availableViscosity, cinematicNot availableExplosive propertiesNot explosiveOxidising propertiesNot oxidising

9.2 Other information:

Physical hazards

**Explosives:** Not explosive Flammable gases: Not applicable Flammable aerosols: Not applicable **Oxidising gases:** Not oxidising Gases under pressure: Not available Flammable liquids: Not applicable Flammable solids: Not applicable **Self-reactive substances and** Not available

mixtures

Pyrophoric liquidsNot availablePyrophoric solidsNot availableSelf-heating substances andNot available

mixtures

Substances or mixtures which, Not available

in contact with water emit

flammable gases

Oxidising liquidsNot availableOxidising solidsNot availableOrganic peroxidesNot availableMetal corrosionNot available

**Bulk Density**  $700.00 - 750.00 \text{ kg/m}^3$ 

**Percent volatile** 0% estimated

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**SECTION 10: Stability and reactivity** 

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**10.1 Reactivity** Material is stable under normal conditions.

Material is stable under normal conditions. 10.2 Chemical stability

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. Contact with incompatible materials.

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	LC0	>=0.69mg/1,	Rat
(dust/mist)		>=0.69mg/1, 4 hours	

Skin corrosion/irritation Not classified. Not irritating: OECD 404

Eye damage/irritation Dust in the eyes will cause irritation. Not classified. Frequent or prolonged contact may defat and dry the Sensitisation to the respiratory

skin, leading to discomfort and dermatitis. tract/skin

Germ cell mutagenicity Not available

Carcinogenicity Amorphous silica is not classifiable as to its carcinogenicity to

humans (Group 3).

Reproductive toxicity Specific target organ toxicity

(single exposure)

Specific target organ toxicity

(repeated exposure)

Not available

Not available

Not available

**Aspiration hazard** Not available.

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# Physical, chemical and toxicological characteristics

In case of ingestion No data available

In case of skin contact

Dust may irritate the skin and cause a drying effect on the skin.

Dust may irritate respiratory system. Prolonged inhalation may be

harmful. Synthetic amorphous silica gel has little adverse effect on lungs and does not produce significant toxic effects when exposure

is kept below the permitted limits. However existing medical conditions (e.g. asthma, bronchitis) may be aggravated by exposure to dust and lower levels of exposure are less likely to affect 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
Amorphous Silica (CAS 7631-86-9)	NEOL	>10000 mg/l	72 hours	Algae
	EC50	>10000 mg/l	24 hours	Daphnia
	LC0	>10000 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** Not applicable.

assessment

**12.6 Other adverse effects**Based on available data, these 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.

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

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according to EWC/AVV

**Packaging** 

Waste codes / waste designations

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The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Where possible recycling is preferred to disposal or incineration.

Dispose of an unused product.

Collect and reclaim or dispose in sealed containers at licenced Waste treatment options

waste disposal waste disposal site. Dispose in accordance with all

appliance regulations.

Dispose in accordance with all applicable regulations. Other disposal recommendations

**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

Not available 14.4 Packing group

14.5 Environmental hazards Not available

14.6 Special precautions for user Not applicable.

14.7 Transport in bulk Not applicable.

according to Annex II of MARPOL 73/78 and the IBC

Code

Land transport (ADR/RID)

(ADN)

**Inland Waterway transport** Not regarded as dangerous goods

Sea transport (IMDG)

Air transport (ICAO-TI / IATA-

DGR)

Not regarded as dangerous goods Not regarded as dangerous goods

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

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed

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

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

Not listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals Annex I, part 1

Not listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed

Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed

Regulation (EC) No. 166/2006 Annex II pollutant release and transfer registry.

Not listed

Regulation (EC) No. 1907/2006 REACH Article 59(10) candidate list as currently published by ECHA

Not listed

**Authorisations** 

Regulation (EC) No. 1907/2006 REACH Annex XIV Substances subject to authorization, as amended

Not listed

Restrictions on use

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use Not listed

Regulation (EC) No. 1907/2006 REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed

Directive 2004/37/EC: on the protection of workers form the risks related to exposure to carcinogens and mutagens at work

Not listed

Directive 2004/37/EC: on the protection of workers form the risks related to exposure to carcinogens and mutagens at work

Not regulated

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Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances.

Not listed

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Always applicable

Directive 94/33/EC on the protection of young people at work

Not Listed

Other regulations The product is classified and labelled in accordance with EC

directives or respective national laws. This Safety Data Sheet

complies with the requirements of Regulation (EC) No 1907/2006, as

amended.

This product is in compliance with Directive 2011/65/EU on the

restriction of the use of certain hazardous substances in electrical and

electronics equipment (RoHS).

15.1.2 National regulations Follow national regulation for work with chemical agents.

Chemical safety assessment Chemical Safety Assessment has been carried out. 15.2

International Inventories

international inventories		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical	Yes
	Substances (AICS)	
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
China	<b>Inventory of Existing Chemical Substances</b>	Yes
	in China (IECSC)	
Europe	European Inventory of New and Existing	Yes
	Chemicals (EINECS)	
Europe	European List of Notified Chemical	No
	Substances (ELINCS)	
Japan	Inventory of Existing and New Chemical	Yes
	Substances (ENCS)	
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and	Yes
	Chemical Substances (PICCS)	
United States & Puerto Rico	Toxic Substances Control Act (TSCA)	Yes
	Inventory	

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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 5<sup>th</sup> October 2000

 $\begin{array}{lll} \text{MSDS } 1^{\text{st}} \text{ revision} & 20^{\text{h}} \text{ November 2008} \\ \text{MSDS } 2^{\text{nd}} \text{ revision} & 12^{\text{th}} \text{ October 2011} \\ \text{MSDS } 3^{\text{rd}} \text{ revision} & 4^{\text{th}} \text{ March 2014} \\ \text{MSDS } 4^{\text{th}} \text{ revision} & 1^{\text{st}} \text{ May 2015} \end{array}$ 

MSDS 5<sup>th</sup> revision 21<sup>st</sup> February 2017 MSDS 6<sup>th</sup> revision 16<sup>th</sup> May 2020

**16.2 Abbreviations and acronyms** Amorphous silica dioxide \* synthetic amorphous silica

Not applicable

**16.3 Key literature references and** ECHA European Chemicals agency

sources for data

**16.4 Classification for mixtures &** Please refer to section 2.1 **used evaluation method** 

according to regulation (EC)

phrases (number and full text)

1207/2008 [CLP]

16.5 Relevant R-, H- and EUH-

**16.6 Training advice** Not available

**16.7 Further information** Not available

**Disclaimer** The information provided in the SDS is correct to the best of our

knowledge at the date of publication. This document is intended as a

guide for safe handling, storage and use in known industrial

applications. The manufacturer makes no representation, warranty or guarantee as to its accuracy, reliability or completeness nor assumes any liability for its use. It is the users responsibility to confirm in advance that the information is current, applicable and suitable to their circumstances for each particular use. No representative of ours

has authority to waive this provision.