

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: Self-Indicating Silica Gel, Orange to Green

Version No: MCS/101/01/MSDS - 07 / EN

Revision Date: 30.07.2018

Print Date: 30.07.2018

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

1.1 Product identifier

Trade name or designation of the mixture	Self-Indicating Silica Gel, Orange to Green
Registered number	Not available
Synonyms Issue	Silica, amorphous, silica, precipitated and gel
Date Version	30 th July 2018
Number Revision	07
Date Supersedes	03 rd January 2017

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	No other uses are advised

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 mixture 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 the Regulation (EC) 1272/2008 as amended.

Physical hazard	Not classified as a physical hazard.
Human health hazard	Not classified as a health hazard.
Environmental hazard	Not classified as an environmental hazard.

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Addition information

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	Not applicable
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 applicable

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Silica Gel (Silicon Dioxide) >98%	Methyl Violet <0.1%	Water <2%
Index No	-	-	-
EC No	231-545-4	208-953-6	231-791-2
REACH No	JT211170-39	-	-
CAS No	(12926-00-8) 7631-86-9	548-62-9	7732-18-5

Purity	Not Applicable
Synonyms	Silica, amorphous; silica, precipitated and gel.
Stabilisers	Not Applicable
Hazard Impurities	Not Applicable

3.2 Mixtures

Additional information

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

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

If dust from the material is inhaled, remove the affected person immediately from the source of exposure to fresh air, seek medical attention if symptoms develop or persist.

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Skin contact	Wash spillage from skin with soap and water, seek medication attention if irritation develops and persists.
Eye Contact	Do not rub eyes. Rinse with water, seek medical attention if irritation develops and persists.
Ingestion	Rinse out mouth with water thoroughly; seek medical attention if symptoms occur. If ingestion of a large amount does occur, seek medical attention.

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 Any media suitable for the surrounding fire.
Unsuitable extinguishing media Not applicable and unused material will not burn.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products Inorganic compound, not combustible and is not considered to be a fire hazard.

5.3 Advice for firefighters

Additional information Special protective equipment for fire-fighters - Full protective clothing must be worn in case of fire and appropriate breathing equipment for surrounding fire.

SECTION 6: Accidental release measure

6.1 Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel

Protective equipment Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation.

Emergency procedures Keep unnecessary personnel away.

6.2 Environmental precautions No special precautions.

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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 Large Spills: Wet down with water and pile for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: 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

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.

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SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

8.1.1 Occupational exposure limits:

UK. EH40 Workplace Exposure Limits (WELs)

Substance Name	EC-No.	CAS-No.	Type	Value	Occupational exposure limit value	
					Long Term	Short Term
Silica, Amorphous – Inhalable dust	231-545-4	(12926-00-8) 7631-86-9	TWA	OES 6mg/m ³	8 Hours	-
Silica, Amorphous – Respirable dust	231-545-4	(12926-00-8) 7631-86-9	TWA	OES 2.4mg/m ³	8 Hours	-
Silica gel	231-545-4	(12926-00-8) 7631-86-9	TWA	ACGIH: TLV 10mg/m ³	8 Hours	-
Methyl Violet	208-953-6	548-62-9	TWA	ACGIH: 0.5mg/m ³	8 Hours	-

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 DNEL / PNEC < 1 = No immediate concern

8.1.5 Risk management measures according to used control banding approach Not applicable

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

Wear suitable eye protection (safety glasses with side shields).

Skin protection:

Hand protection

Under the EN388 glove standard, the resistance to abrasion, blade cut resistance, tear resistance and puncture resistance are categorised as 2 in the protection rating.

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Body protection	Wear lab coat over normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	FFP2 dust mask is recommended to protect moderate levels of dust.
Thermal hazards	None known
8.2.3 Environmental exposure controls	None known

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state: Solid beads **Colour:** Dry: Yellow/Orange Saturated: Green **Odour:** Odourless

pH	2-10 (5% Aqueous Solution)
Melting Point/Freezing point	>1000
Boiling Point	Not Applicable
Flash Point	Not Applicable
Evaporation rate	Not available
Flammability (solid, gas)	Non-flammable
Upper/lower flammability or explosive limits	
Upper explosive limits	Not Applicable
Lower explosive limits	Not Applicable
Vapour pressure	Not available
Vapour density	Not available
Relative density	2.1 (water = 1)
Solubility(ies)	Less 1.0% in weight
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
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

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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

SECTION 10: Stability and reactivity

10.1 Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
10.2 Chemical stability	Material is stable under normal conditions and hygroscopic
10.3 Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use
10.4 Conditions to avoid	Not available
10.5 Incompatible materials	Not available
10.6 Hazardous decomposition products	No hazardous decomposition products are known

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	>15,000mg/kg	Rat
Acute dermal toxicity	LD50	>5,000mg/kg	Rabbit
Acute inhalation	LC50	>0.139mg/1/14h	Rat

Skin corrosion/irritation	No data available
Eye damage/irritation	No data available

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Sensitisation to the respiratory tract/skin	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).
Reproductive toxicity	No data available
Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration hazard	Dust may irritate lungs. Amorphous silica is not known to cause silicosis.
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	Synthetic amorphous silica is virtually inert and has no known adverse effect on the environment and not toxic to aquatic life
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.
12.4 Mobility in soil	Insoluble and thus presents a low mobility in most soils.
12.5 Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.
12.6 Other adverse effects	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Product / packaging disposal	Product can be reactivated in an oven for re-use.

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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. This material is not classified as hazardous waste under EEC Directive 91/689/EEC.
Packaging	No data available
Waste treatment options	Disposal of in accordance with all applicable local and national regulations. This material is not classified as special waste under UK Special Waste Regulations 1996 and can be disposed of by landfill at an approved site.
Other disposal recommendations	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

14.1 UN No.	Not classified as dangerous goods under the United Nations Transport Recommendations.
14.2 UN Proper Shipping name	Not applicable.
14.3 Transport hazard class(es) Hazard label(s)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	Not applicable.
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

Authorisations:	Not applicable
Restrictions on use:	Not applicable

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Other EU Regulations:

Directive 2010/75/EC on industrial emissions

Not listed

Directive 2004/42/CE on the limitation of emissions of volatile organic compounds

Not listed

Regulation (EC) No. 842/2009 on certain fluorinated greenhouse gases

Not listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

15.1.2 National regulations Not Available

15.2 Chemical safety assessment No 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 revision MSDS Revised MSDS Revised MSDS Revised MSDS Revised	18 th April 2000 20 th November 2002 10 th December 2008 11 th October 2011 12 th May 2014 3 rd January 2017
16.2 Abbreviations and acronyms	Not applicable	
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	Follow training instructions when handling this material.	
16.7 Further information	Not available.	
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