

1. Product Identification

Name	Non-Indicating Silica Gel
Company	Brownell Ltd
Address	Unit 2, Abbey Road Industrial Park Commercial Way London, NW10 7XF
Telephone number	(+44) 020 8965 9281
Fax number	(+44) 020 8965 3239
Emergency Phone	(+44) 020 8838 8408

2. Composition / Information on the components

Chemical Description	Silica Gel (Synthetic amorphous silica)
Formula	SiO ₂
CAS	112926-00-8 amorphous silica 98.2%

3. Health Hazard Identification

Do not breathe dust or exceed the exposure limits

4. First Aid Measures

Inhalation	Remove from source of exposure.
Skin Contact	Wash spillage from skin with soap and water.
Eyes Contact	Wash immediately with copious amounts of water and obtain medical attention.
Ingestion	Wash out mouth with water. If large amount swallowed or symptoms develop obtain medical attention.

5. Fire Fighting Measures

Extinguishing Media	Not applicable. Inorganic compound. Not combustible.
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6. Accidental Release Measures

Personal Precautions	Do not inhale. Wear appropriate protective clothing. Dust mask essential if conditions are dusty. See section 8 for exposure limits.
Spillages	Contain spillage. Collect in suitable containers for recovery or disposal. During collection avoid creating dust.

7. Handling and Storage

Handling	Avoid creating any dust. Do not smoke. During handling electrostatic charges can accumulate (see BS 5958 for advice on the control of static.)
Storage	All containers must be closed air tight and kept in a dry place.

8. Exposure Control / Personal Protection

Occupational Exposure Standards:

Synthetic amorphous silica	Silica amorphous, total inhalable dust: UK EH40: OES 6mg/m ³ 8h TWA. Silica amorphous, respirable dust: UK EH40: OES 2.4mg/m ³ 8h TWA. Silica Gel: ACGIH: TLV 10mg/m ³ 8h TWA. Activation agent: ACGIH: 0.5mg/m ³ 8h TWA.
Engineering Control Measures	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.
Respiratory Protection	Avoid inhalation of dust. Wear suitable respiratory protective equipment if working in confined spaces with inadequate ventilation or whenever there is any risk of the exposure limits being exceeded.
Hand Protection	Wear protective gloves.
Eyes Protection	Wear suitable eye protection.
Protection During Application	Handle in well ventilated conditions in accordance with good industrial hygiene and safety practices.

9. Physical and Chemical Properties

Aspect	Beads
Colour	White Translucent Beads
Odour	Odourless
pH	2-10 at 5% w/w in water
Melting Point (°C)	>1000
Boiling Point	Not Applicable
Flash Point	Not Applicable
Explosion Limits	Not Applicable
Bulk Density	720kg per cu meter (typical)
Solubility in Water	less 1.0% in weight
Thermal Decomposition	Stable except when saturated water released during regeneration

10. Stability and Reactivity

Stability	Hygroscopic
Conditions to Avoid	High temperatures in excess of 155°C

10. Stability and Reactivity (cont.)

Materials to Avoid	None known
Hazardous Decomposition	Hygroscopic material

11. Toxicological Information

Toxicity	The lethal dose for humans for synthetic amorphous silica is estimated at over 15,000mg/kg.
Health Effects 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.
Eye Contact	Dust may cause discomfort and mild irritation.
Skin Contact	Dust may have a drying effect on the skin.
Carcinogenicity	Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).

12. Ecological Information

Ecotoxicity	Synthetic amorphous silica is virtually inert and has no known adverse effect on the environment.
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13. Disposal

Product Disposal	Product can be reactivated in an oven for re-use. This material is not classified as hazardous waste under EEC Directive 91/689/EEC. Dispose 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.
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14. Transport Information

UN Class	Not classified as dangerous goods under the United Nations Transport Recommendations.
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15. Information on Regulation

EC Classification	This product is not classified as dangerous.
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15. Information on Regulation (cont.)

S phrases	Handle in accordance with good industrial hygiene and safety practices. Avoid inhalation of dust.
EINECS Listing	Preparation – all components listed
TSCA Listing	Mixture – all components listed
AICS Listing	Mixture – all components listed
DSL/NDSL (Canadian) Listing	Mixture – all components listed

16. Other Information

MSDS first issued	5th October 2000
Revised	22 nd March 2011

The information provided in the Material Safety Data Sheet 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.
