

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Britesorb BK75 , Britesorb BK85 , Britesorb BK95 ,
Britesorb BK185 , Britesorb PC5 , BK750-H
Synthetic amorphous silica hydrated

Alternative names

CAS No. 112926-00-8
EINECS No. 2315454
REACH Registration No. 01-2119379499-16-0047

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

Identified use(s) Beverage processing.
Adsorbent or absorbent ; Process regulator or aid ;
See also Annex to the extended Safety Data Sheet.

Uses advised against None known.

1.3 Details of the supplier of the safety data sheet

Company Identification PQ Silicas B.V.
P. van Dijkstraat 9
9672 AJ Winschoten
The Netherlands

Telephone: +31 597 455111
E-Mail (competent person) sds.uk@pqcorp.com

1.4 Emergency telephone number

Emergency Phone No. +31 597 455111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification Not classified as dangerous for supply/use.

EC Classification Not classified as dangerous for supply/use.

Hazards summary Exposure to any kind of dust is potentially harmful.

2.2 Label elements

Hazard statement(s) None.

Precautionary statement(s) None.

Safety Phrases Handle in accordance with good industrial hygiene and safety practices.
Avoid inhalation of dusts.

2.3 Other hazards Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification No. 1272/2008

Ingredient(s)	%W/W	CAS No.	EINECS No. / REACH Registration	Hazard symbol(s) and hazard statement(s)
Synthetic amorphous silica	30 - 45	112926-00-8	2315454 01-2119379499-16	Not classified
Water	55 - 70	7732-18-5	2317912	

EC Classification No. 67/548/EEC

Ingredient(s)	%W/W	CAS No.	EINECS No. / REACH Registration	EC Classification and Risk Phrases
Synthetic amorphous silica	30 - 45	112926-00-8	2315454 01-2119379499-16	Not classified
Water	55 - 70	7732-18-5	2317912	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact	If substance has got into the eyes, immediately wash out with plenty of water. Obtain immediate medical attention.
Skin Contact	Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.
Inhalation	Remove patient from exposure, keep warm and at rest. If symptoms develop, obtain medical attention.
Ingestion	Do not induce vomiting. Wash out mouth with water. If large amount swallowed or symptoms develop obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Exposure to any kind of dust is potentially harmful.

4.3 Indication of any immediate medical attention and special treatment needed

See Section: 4.1

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media	Compatible with all standard fire fighting techniques.
Unsuitable extinguishing Media	None known.

5.2 Special hazards arising from the substance or mixture

Not applicable. Inorganic powder or granules. Non-combustible.

5.3 Advice for fire-fighters

None.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Wear eye/face protection. An approved dust mask should be worn if dust is generated during handling.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Contain spillages. Dampening with water can reduce dust. Sweep or preferably vacuum up and collect in suitable containers for recovery or disposal.

6.4 Reference to other sections

See Also Section 8.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Avoid generation of dust.
A considerable static electrical charge can be built up during mechanical handling which may become a hazard in atmospheres containing flammable vapours. Advice on the control of static is given in British Standard BS 5958. See Also Section 8.
- 7.2 Conditions for safe storage, including any incompatibilities** Keep container tightly closed and dry.
- 7.3 Specific end use(s)** See also Annex to the extended Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

SUBSTANCE.	Occupational Exposure Limits
Synthetic amorphous silica	Silica amorphous, total inhalable dust: UK EH40: WEL 6 mg/m ³ 8h TWA.
	Silica amorphous, respirable dust: UK EH40: WEL 2.4 mg/m ³ 8h TWA.
	Silica, Amorphous - Precipitated silica and silica gel: ACGIH: TLV withdrawn 2006
	Silica amorphous - Precipitated silica: OSHA: PEL 6mg/m ³ 8h TWA

Derived No Effect Level (DNEL)	Oral / mg/kg bw/d	Inhalation / mg/m ³	Dermal / mg/kg bw/d
Workers - Acute - Systemic effects	-	-	-
Workers - Acute - Local effects	-	-	-
Workers - Long Term - Systemic effects	-	-	-
Workers - Long Term - Local effects	-	4	-
Consumers - Acute - Systemic effects	-	-	-
Consumers - Acute - Local effects	-	-	-
Consumers - Long Term - Systemic effects	-	-	-
Consumers - Long Term - Local effects	-	-	-

Risk management measures (RMMs) for identified uses must be implemented as described in this SDS.

	Predicted No Effect Concentration
PNEC Water (fresh)	No PNEC quantifiable due to high tolerance in acute testing.
PNEC Water (marine)	No PNEC quantifiable due to high tolerance in acute testing.
PNEC Water (intermittent)	No PNEC quantifiable due to high tolerance in acute testing.
PNEC Sediment	No PNEC quantifiable due to high tolerance in acute testing.
PNEC Soil	Not applicable
PNEC Sewage treatment plant	Not applicable
PNEC Secondary Poisoning (oral)	60000 mg/kg food

8.2 Exposure controls

Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.

8.2.1 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 Protection

Respiratory protection

Avoid inhalation of dusts. Wear suitable respiratory protective equipment if working in confined spaces with inadequate ventilation or where there is any risk of the exposure limits being exceeded. Advice on respiratory protective equipment is given in the HSE (Health and Safety Executive) publication HS(G)53.

Eye/face protection
Skin protection

Safety spectacles. Eye protection with side protection (EN 166) .
Wear suitable protective clothing and gloves. Plastic or rubber gloves. For example EN374-3. Wear suitable overalls.
Avoid generation of dust.

8.2.3 Environmental Exposure Controls

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Powder. White.
Odour	Odourless.
Odour Threshold (ppm)	Not applicable.
pH (Value)	2 - 4 at 10% w/w in water.
Freezing Point (°C)	Not applicable.
Melting Point (°C)	> 1000
Boiling Point (°C)	Not applicable.
Flash Point (°C) [Closed cup]	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	Not applicable.
Vapour Pressure (mm Hg)	Not applicable.
Vapour Density (Air=1)	Not applicable.
Density (g/ml)	No data.
Solubility (Water)	Insoluble.
Solubility (Other)	No data.
Partition Coefficient	No data.
Auto Ignition Point (°C)	Not applicable.
Decomposition Temperature (°C)	Not applicable.
Viscosity (mPa. s)	Not applicable.
Explosive properties	Not applicable.
Oxidising Properties	Not applicable.
9.2 Other information	No data.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	See Section: 10.3
10.2 Chemical stability	This product is hygroscopic.
10.3 Possibility of hazardous reactions	None known.
10.4 Conditions to avoid	See Section: 10.3
10.5 Incompatible materials	See Section: 10.3
10.6 Hazardous decomposition product(s)	None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Ingestion

The lethal dose for humans for synthetic amorphous silica is estimated at over 15000 mg/kg.

Inhalation

Synthetic amorphous silica is a permitted food additive in the UK, US and many other countries. Oral LD50 (rat) >3100 mg/kg bw
Synthetic amorphous silica 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.

Skin Contact	Dust may have a drying effect on the skin. Dermal LD50 (rabbit) >5000 mg/kg bw
Eye Contact	Dust may cause discomfort and mild irritation.
Skin corrosion/irritation	Non-irritant. Dust may have a drying effect on the skin.
Serious eye damage/irritation	Non-irritant.
Sensitisation	Not sensitising.
Mutagenicity	No evidence of genotoxicity. In vitro/in vivo negative.
Carcinogenicity	IARC assessment: Amorphous silica is not classifiable as to its carcinogenicity to humans (Group 3).
Reproductive toxicity	No evidence of reproductive toxicity or developmental toxicity.
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified. NOAEL oral (rat) >4000 mg/kg bw/d
Aspiration hazard	Not classified
Other information	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Synthetic amorphous silica is virtually inert and has no known adverse effect on the environment. Fish (Brachydanio rerio) LL50 (96 hour) >10000 mg/l Aquatic invertebrates: (Daphnia magna) EL50 (24 hour) >10000 mg/l
12.2 Persistence and degradability	Inorganic.
12.3 Bioaccumulative potential	Inorganic. The substance has no potential for bioaccumulation.
12.4 Mobility in soil	Not applicable.
12.5 Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
12.6 Other adverse effects	None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Disposal should be in accordance with local, state or national legislation. This product normally causes no problems in sewage treatment works, where it settles with the sewage sludge. This material is not classified as hazardous waste under EEC Directive 91/689/EEC (and amendments). This material is not classified as hazardous waste under the Hazardous Waste (England and Wales) Regulations SI 2005 No. 894. May be disposed of by landfill in accordance with local regulations.
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SECTION 14: TRANSPORT INFORMATION

14.1 UN number	Not classified as dangerous for transport.
14.2 Proper Shipping Name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	Not applicable.
14.6 Special precautions for user	None. No special packaging requirements.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

SECTION 15: REGULATORY INFORMATION

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

TSCA Inventory Status: Reported/Included. CAS No. 7631-86-9

AICS Inventory Status: Reported/Included.

DSL/NDSL Inventory Status: Reported/Included.

FDA: Silicon dioxide 21CFR 172.480

German Water Hazard Classification VwVwS: Product ID number 849, not hazardous to water - nwg.

15.2 Chemical Safety Assessment Information available on request.**SECTION 16: OTHER INFORMATION**

Data referenced in this eSDS is from company-owned information and from data legitimately accessed by PQ Corporation through membership of Industry Consortia or other agreements. This includes data relating to toxicology, ecotoxicology, DNELs, PNECs and other information in this eSDS and its annex.

This SDS was last reviewed: 12/2011

The following sections contain revisions or new statements: 9, pH

EC Classification No. 67/548/EEC	Not classified as dangerous for supply/use.
Risk Phrases	None
Safety Phrases	Handle in accordance with good industrial hygiene and safety practices. Avoid inhalation of dusts.

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*THIS ANNEX IS CURRENTLY ONLY AVAILABLE IN ENGLISH.
A TRANSLATED VERSION IS BEING PREPARED.*

Annex to the extended safety data sheet (eSDS)

Substance: SYNTHETIC AMORPHOUS SILICA
Alternative name: SILICON DIOXIDE, AMORPHOUS
Trade name: BRITESORB

Identified Uses for BRITESORB Version 1 - November 2010

Uses by workers in industrial settings

IU number	Identified use name	Process category	Sector of end use
17	Food/beverage industry – processing aid	PROC 2 PROC 3 PROC 4 PROC 5	SU 4

Uses by professional workers

IU number	Identified use name	Process category	Sector of end use
17	Food/beverage industry – processing aid	PROC 2 PROC 3 PROC 4 PROC 5	SU 4

GLOSSARY – Based on ECHA Guidance on information requirements and chemical assessment Chapter R.12: Use descriptor system Version 2 March 2010

Sector of Use (SU)	
Key descriptor: Main user groups	
SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 22	Professional uses: Public domain (administration, education , services, craftsmen)
Supplementary descriptor: Sectors of end-use	
SU4	Manufacture of food products

Process Categories (PROC)	
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant con-tact)