AlphaCore™ Pure

Product Safety Information

Although the REACH Regulation does not require a Safety Data Sheet to be provided for AlphaCore™ products, as they are considered articles under the Regulation, this Product Safety Information Sheet has been prepared to reflect the primary SDS requirements as set out in Annex II to Regulation (EC) No. 1907/2006 (REACH), as amended at the date of the publication, as they might reasonably apply to articles

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

1.1 Product Identifier

Product name: Kingspan AlphaCore™ Pure.

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

Identified uses: Thermal insulation material insulating wall panel.

Uses advised against: Not determined.

1.3 Details of the supplier of the Product Safety Information Sheet

Company Name: Kingspan Insulation Limited

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2 Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567).

The product has not been classified as hazardous according to the legislation in force.

2.2 Label elements

Not applicable.

2.3 Other hazards

The proportion of crystalline silicic acids in synthetic amorphous in silicon carbide is distinctly lower than the measureable content of SiO_2. The proportion of silicic acids in synthetic amorphous silicon dioxide is below the detection limit of 0.05 weight percentages.

Results of PBT and vPvB assessment

A PBT / vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

3 Composition / information on ingredients

3.1 Core

Kingspan AlphaCore™ Pure consists of a monolithic core made of microporous water-repellent silica.

3.2 Mixtures

General information: No hazardous ingredients.

4 First aid measures

4.1 Description of necessary first aid measures

Inhalation:	In case product dust is released: possible discomfort, cough, sneezing. Move to fresh air.
Skin contact:	Wash off with plenty of water and soap.
Eye contact:	Possible discomfort is due to foreign substance effect. Rinse thoroughly with plenty of water keeping eyelid open. In case of persistent discomfort, consult an ophthalmologist.
Ingestion:	Clean mouth with water and drink afterwards plenty of water. After absorbing large amounts of substance / in case of discomfort, supply with medical care.
Personal protection for first aid responders:	No data available.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:	None known.
Hazards:	None known.

4.3 Indication of any immediate medical attention and special treatment needed

No hazards which require special first aid measures.

5 Firefighting measures

5.1 Extinguishing media

Suitable media:	Water spray, foam, CO_2 or dry powder. Adapt fire-extinguishing measures to surroundings.
Unsuitable media:	Do not use full-force water jet in order to avoid dispersal and spread of the fire.

5.2 Special hazards arising from the substance or mixture

May be released in case of fire: carbon monoxide, carbon dioxide, silica.

5.3 Advice for firefighters

Special firefighting procedures:	Water used to extinguish fire should not enter drainage systems,soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters:	In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

For non-emergency personnel:	Avoid dust formation.
For emergency responders:	No data available.

6.2 Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

6.3 Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4 Reference to other sections

See Section 8 for PPE.
See Section 13 for Disposal considerations.

7 Handling and storage

7.1 Precautions for safe handling

Technical measures (e.g. local and general ventilation):	Provide suitable extraction / ventilation at processing machines. If necessary, local ventilation.
Safe handling advice:	If there is the possibility of skin / eye contact, the indicated hand / eye / body protection should be used. If workplace exposure limits are exceeded and / or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If necessary, local ventilation During processing dust is released. Wear Dust mask and eye protectors. For personal protection see section 8.
Contact avoidance measures:	No data available.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions:	Keep in a dry place. Take precautionary measures against static discharges.
Safe packaging materials:	No data available.

7.3 Specific end use(s):

Applications:	See section 1. No further information available.

8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Chemical name	Type	Exposure limit values	Source
Silicon carbide - respirable	TWA	4 mg/m^3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)
Silicon carbide - inhalable	TWA	10 mg/m^3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)
Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9) - inhalable dust	TWA	6 mg/m^3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)
Silicon dioxide, chemically prepared (CAS 112945-52-5 resp. 7631-86-9) - respirable dust	TWA	2.4 mg/m^3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

There are no specific occupational exposure limits (OELs) for the thermal insulation product itself, since these values only have relevance at substance level. Best practice is not to exceed the stated Exposure Limit Values.

Biological limit values

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

DNEL-values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Silicon carbide	General population	Oral	Systemic, short-term; 13 mg/kg	Acute toxicity
	General population	Dermal	Systemic, short-term; 200 mg/kg	Acute toxicity
	Workers	Inhalation	Systemic, short-term; 94 mg/m³	Acute toxicity
	General population	Inhalation	Systemic, short-term; 23 mg/m³	Acute toxicity
	Workers	Eyes	Local effects;	No hazard identified
	General population	Eyes	Local effects;	No hazard identified

8.2 Exposure controls

Appropriate engineering controls: Provide suitable extraction / ventilation at processing machines. If necessary, local ventilation. See also section 7.

Individual protection measures, such as personal protective equipment.

Eye / face protection: Safety glasses with side shields.

Hand protection: Additional Information: Wear protective gloves made of the following materials - material, rubber, leather.

Additional Information: The data about breakthrough time / strength of material is not valid for undissolved solids / dust.

Skin and body protection: No special protective equipment required.

Respiratory protection: No special protective equipment required. If dust occurs, dust mask with P2 particle filter.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before reuse.

Environmental controls: No data available.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Solid.
Form:	Blocks.
Colour:	Grey.
Odour:	Odourless.
Odour threshold:	Not applicable.
Melting point:	Not applicable. Decomposition.
Boiling point:	Not applicable. Decomposition.
Flammability:	Not flammable.

Upper / lower limit on flammability or explosive limits

Explosive limit - upper:	See Explosiveness.
Explosive limit - lower:	See Explosiveness.
Flash point:	Not applicable. Solid.
Self ignition temperature:	The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Decomposition temperature:	Decomposition beginning >300 °C.
pH:	Not determined.

Viscosity

Dynamic viscosity:	Not applicable solid.
Kinematic viscosity:	Not applicable solid.
Flow time:	No data available.

Solubility(ies)

Solubility in water:	Hardly soluble.
Solubility (other):	No data available.
Dissolution rate:	No data available.
Partition coefficient (n-octanol / water):	Not applicable
Dispersion stability:	No data available.
Vapour pressure:	Not applicable.
Relative density:	No data available.
Density:	Approximate 0.165 g/cm^3 (20 °C).
Bulk density:	No data available.
Vapour density (air=1):	No data available.

Particle characteristics

Particle size:	No data available.
Particle size distribution:	No data available.
Dustiness:	No data available.
Specific surface area:	No data available.
Surface charge / Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

9.2 Other information

Explosive properties:	Not explosive
Oxidising properties:	The substance or mixture is not classified as oxidising.
Minimum ignition temperature:	> 600 °C (VDI 2263)
Peroxides:	The substance or mixture is not classified as organic peroxide.
Metal corrosion:	Not to be expected in view of the structure.
Evaporation rate:	Not applicable.
Minimum ignition energy:	Not applicable.

10 Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are known if properly handled and stored.

10.4 Conditions to avoid

Hydrophobic properties disappear at temperatures > 300 °C.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Carbon Monoxide. Carbon Dioxide. Silica organic products of decomposition Stable under normal conditions. Product will not undergo hazardous polymerisation.

11 Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure.

Inhalation:	Information on effects are given below.
Skin contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral:	No data is available on the product itself. Not classified for acute toxicity based on available data.
Dermal:	No data is available on the product itself. Not classified for acute toxicity based on available data.
Inhalation:	No data is available on the product itself. Not classified for acute toxicity based on available data.
Repeated dose toxicity:	No data available.
Skin corrosion / irritation:	Not irritating; based on available data, the classification criteria are not met.
Serious eye damage / eye irritation:	Product dust may cause temporary mechanical eye irritation. Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation:	Not known.
Carcinogenicity:	No data available.
Germ cell mutagenicity:	No data available.
In vitro:	No data available.
In vivo:	No data available.
Reproductive toxicity:	No data available.
Specific target organ toxicity - single exposure:	No evidence for hazardous properties.
Specific target organ toxicity - repeated exposure:	No evidence for hazardous properties.
Aspiration hazard:	Not classified.

11.2 Information on other hazards

An expert judgment stated that no classification is necessary based on present knowledge. No toxicological tests are available on the product.

12 Ecological information

12.1 Toxicity

Acute hazards to the aquatic environment

Fish:	No data available.
Aquatic invertebrates:	No data available.
Toxicity to aquatic plants:	No data available.
Toxicity to microorganisms:	No data available.

Chronic hazards to the aquatic environment

Fish:	No data available.
Aquatic invertebrates:	No data available.
Toxicity to aquatic plants:	No data available.
Toxicity to microorganisms:	No data available.

12.2 Persistence and degradability

Biodegradation:	The methods designed to assess persistence and biodegradability are not applicable to this product, in analogy to inorganic substances.
BOD / COD ratio:	No data available.

12.3 Bio-accumulative potential

Bioconcentration factor (BCF):	Not to be expected.
Partition coefficient n-octanol / water (log Kow):	Not applicable.

12.4 Mobility in soil

No remarkable mobility in soil is to be expected.

12.5 Results of PBT and vPvB assessment

A PBT / vPvB assessment is not applicable, as the product contains only inorganic components.

12.6 Other Adverse Effects

An expert judgment stated that no classification is necessary based on present knowledge. No ecotoxicological data is available for this product.

13 Disposal considerations

13.1 Waste treatment methods

General information:	No data available.
Disposal methods:	Waste insulation is considered to be non-hazardous. Waste product, including packaging, should be disposed of in accordance with the Waste Hierarchy – Reduce, Re-Use, Recycle. Refer to national waste handling legislation. No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. Can be disposed of with domestic refuse in accordance with the necessary technical regulations following consultation with waste disposal expert(s) and the responsible authorities. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.
Contaminated packaging:	Offer rinsed packaging material to local recycling facilities. Other countries: observe the national regulations.

14 Transport information

Ensure security of load and where necessary sheeting / roping should be used.

It is recommended that mechanical lifting equipment is used when moving bulk quantities.

14.1 UN / ID No.

Not regulated as a dangerous good.

14.2 UN proper shipping name

Not regulated as a dangerous good.

14.3 Transport hazard class(es)

Not regulated as a dangerous good.

14.4 Packing group

Not regulated as a dangerous good.

14.5 Environmental hazards

Not regulated as a dangerous good.

14.6 Special precuations for user

Not applicable.

14.7 Martime transport in bulk according to IMO instruments

Not applicable for product as supplied.

15 Regulatory information

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

EU. REACH Annex XIV, Substances Subject to Authorization: none.

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): none.

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none.

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none.

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances: none.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended: none.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended: none.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended: none.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended: none.

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I: Not applicable.

15.2 Chemical safety assessment

No chemical safety assessment is required for this product.

16 Other information

16.1 Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
AGW	Occupational exposure limit.
ASTM	American Society for Testing and Materials.
AwSV	Ordinance on facilities for handling substances that are hazardous to water.
BSB	Biochemical oxygen demand.
c.c.	Closed cup.
CAS	Chemical Abstract Services.
CESIO	European Committee of Organic Surfactants and their Intermediates.
CSB	Chemical oxygen demand.
DMEL	Derived minimum effect level.
DNEL	Derived no effect level.
EbC50	Median concentration in terms of reduction of growth.
EC	Effective concentration.
EINECS	European Inventory of Existing Commercial Chemical Substances.
EN	European norm.
ErC50	Median concentration in terms of reduction of growth rate.
GGVSEB	German ordinance for road, rail and inland waterway transportation of dangerous goods.
GGVSee	German ordinance for sea transportation of dangerous goods.
GLP	Good Laboratory Practice.
GMO	Genetic Modified Organism.
IATA	International Air Transport Association.
ICAO	International Civil Aviation Organization.
IMDG	International Maritime Dangerous Goods.
ISO	International Organization For Standardization.
LD / LC	Lethal dosis / concentration.
LOAEL	Lowest observed adverse effect level.
LOEL	Lowest observed effect level.
M-Factor	Multiplying factor.
NOAEL	No observed adverse effect level.
NOEC	No observed effect concentration.
NOEL	No observed effect level.
o.c.	Open cup.
OECD	Organisation for Economic Cooperation and Development.
OEL	Occupational Exposure Limit.
PBT	Persistent, bioaccumulative, toxic.
PNEC	Predicted no effect concentration.
REACH	REACH registration.
RID	Convention concerning International Carriage by Rail.
SVHC	Substances of Very High Concern.
TA	Technical Instructions.
TRGS	Technical Rules for Hazardous Substances.
vPvB	Very persistent, very bioaccumulative.
WGK	Water Hazard Class.

16.2 Key literature references and sources for data

No data available.

16.3 Wording of the H-statements in sections 2 and 3

None.

16.4 Training information

No data available.

16.5 Revision information

This version replaces all previous versions.

16.6 Disclaimer

The information contained here is offered in good faith and is based on our current knowledge. We thereby maintain the right to update and amend this document as necessary.

The information should not be taken as a guarantee of specific performance and users should make their own assessment and make all applicable personnel aware accordingly.

The wearing of appropriate safety equipment is strongly recommended as a precaution and the product should only be used in its design application. Please refer to Sections 7 and 8 for safe handling and appropriate safety measures.

Users should visit the Kingspan Insulation website or contact the Kingspan Insulation Technical Service Department to ensure information is current.

This data sheet does not constitute a workplace assessment. The information provided represents the state of our knowledge regarding this material at the date of its publication. The information provided does not constitute a product specification and no warranty expressed or implied is hereby made.

The information relates only to the specific material designated when used in applications it has been designed for. This information may not be valid for such material used in combination with any other materials or in any other processes, unless specified in the text.

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