

## SAFETY DATA SHEET

(Following Regulations (EC) No 1907/2006 & (EC) No 1272/2008)

Date of first issue: 01 May 2011

Date of last revision: 27 November 2020

### **1 - Identification of Product**

#### **1.1 - Identification of Product**

**Tradenames:** Superwool Plus Blanket

**RS Part Numbers:** 1372238, 1372239, 7248903, 7248912, 7248915, 8405526, 8405529

The above-mentioned products contain Alkaline-earth silicate wools (AES wools)

Index Number: 650-016-00-2 Annex VI

CAS number: 436083-99-7

Registration number: 01-2119457644-32-0000

#### **1.2 - Use of Product**

Application as thermal insulation, heat shields, heat containment, gaskets and expansion joints in industrial furnaces, ovens, kilns, boilers and other process equipment and in the aerospace, automotive and appliance industries, and as passive fire protection systems and fire stops. (Please refer to specific technical data sheet for more information)

#### **1.3 - Identification of Company**

**UK** RS Components Ltd  
Birchington Road  
Corby  
Northants  
NN17 9RS  
Tel: +44 (0) 845 850 9900  
[RCustomerServicesUK@rs-components.com](mailto:RCustomerServicesUK@rs-components.com)

**Ireland** RS Components Ltd  
Glenview Industrial Estate  
Herberton Road  
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Dublin 12  
Tel No +353 (0) 1 415 3100  
[enquiries.ie@rs-components.com](mailto:enquiries.ie@rs-components.com)

#### **1.4 - Emergency information**

Tel: + 44 1865 407333

Language: English

Opening hours: 24 hours

Tel: + +44 1235 239670

Language: English

Opening hours: 24 hours

## **2 - Hazard Identification**

### **2.1 - Classification of the substance/ mixture**

#### 2.1.1 CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008

Not classified as hazardous according to Classification, Labelling and Packaging regulations (CLP) 1272/2008 EEC

### **2.2 - Labelling Elements**

Not applicable

### **2.3 - Other hazards which do not result in classification**

Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure. These effects are usually temporary

## **3 - Composition / Information on Ingredients**

### **Description**

These products in the form of bulk, blanket (pre-sized or not), strip, die-cut and modules, bloc, log (encapsulated or not), are made of AES wool (synthetic fibres, alk. earth silicate).

### **Composition**

COMPONENT	% by weight	CAS No.	REACH Registration Number	Hazard Classification according to CLP
AES wool (synthetic fibres, alk. earth silicate)	100	436083-99-7	01-2119457644-32	Note Q exonerated

### **Composition additional information**

Composition:

\* CAS definition: Alkaline earth silicate (AES) consisting of silica (50-82 wt%), calcia and magnesia (18-43 wt%), alumina and titania (less than 6 wt%), and trace oxides.

None of the components are radioactive under the terms of European Directive Euratom 96/29.

## **4 - First-Aid measures**

### **4.1 - Description of First Aid Measures.**

#### **Skin**

Handling of this material may generate mild mechanical temporary skin irritation. If this occurs, rinse affected areas with water and wash gently. Do not rub or scratch exposed skin.

#### **Eyes**

In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes. Seek medical attention is irritation persists.

## **Nose and Throat**

If these become irritated move to a dust free area, drink water and blow nose. Seek medical attention if irritation persists.

### **First aid additional information**

If symptoms persist, seek medical advice.

### **4.2 - Most Important symptoms and effects, both acute and delayed**

No symptoms or effects expected either acute or delayed

### **4.3 - Indication of any immediate medical attention and special treatment required**

No special treatment required, if exposure occurs wash exposed areas to avoid irritation.

## **5 - Fire-fighting measures**

### **5.1 - Extinguishing media**

Use extinguishing agent suitable for surrounding combustible materials.

### **5.2 - Special hazards arising from the substance or mixture**

Non-combustible products.

### **5.3 - advice for firefighters**

Packaging and surrounding materials may be combustible.

## **6 - Accidental Release Measures**

### **6.1 - Personal precautions, protective equipment and emergency procedures**

Where abnormally high dust concentrations occur, provide workers with appropriate protective equipment as detailed in section 8.

Restrict access to the area to a minimum number of workers required.

Restore the situation to normal as quickly as possible.

### **6.2 - Environmental precautions**

Prevent further dust dispersion for example by damping the materials.

Do not flush spillage to drain and prevent from entering natural watercourses.

Check for local regulations, which may apply

### **6.3 - Methods and materials for containment and clean up**

Pick up large pieces and use a vacuum cleaner.

If brushes are used, ensure that the area is wetted down first.

Do not use compressed air for clean-up.

Do not allow to become windblown.

### **6.4 - Reference to other sections**

For further information, please refer to sections 7 and 8

## **7 - Handling and storage**

### **7.1 - Precautions for safe handling**

Handling can be a source of dust emission and therefore the processes should be designed to limit the amount of handling. Whenever possible, handling should be carried out under controlled conditions (i.e., using dust exhaust system).

Regular good housekeeping will minimise secondary dust dispersal.

### **7.2 - Conditions for safe storage**

Store in original packaging in a dry area.

Always use sealed and clearly labelled containers.

Avoid damaging containers.

Reduce dust emission during unpacking.

### **7.3 - Specific end use**

The main application of these products is as thermal insulation. Please refer to your local Morgan Thermal Ceramics' supplier.

## **8 - Risk Management Measures / Exposures Controls / Personal Protection**

### **8.1 - Control parameters**

Industrial hygiene standards and occupational exposure limits vary between countries and local jurisdictions. Check which exposure levels apply to your facility, and comply with local regulations. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection. Examples of exposure limits applying (in November 2014) in different countries are given below:

<b>Country</b>	<b>MMVF</b>	<b>Source</b>
Austria	1 f/ml	Grenzwerteverordnung
Belgium	10 mg/m <sup>3</sup>	Valeurs limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB
Czech Republic	1 f/ml	
Denmark	1 f/ml	Grænseværdier for stoffer og materialer
Finland	1 f/ml	Finnish Ministry of Social Affairs and Health
France	1 f/ml	INRS
Germany*	1.25 mg/m <sup>3</sup>	TRGS900
Hungary	1 f/ml	EÜM-SZCSM rendelet
Ireland	1 f/ml	HAS - Eire
Italy	1 f/ml	
Luxembourg	1 f/ml	Règlement grand-ducal du 30 juillet 2002
Netherlands	1 f/ml	Social and Economic Council of the Netherlands
Norway	0.5 f/ml	Veiledning om administrative normer for forurensning i arbeidsatmosfære
Poland	2 f/ml	Dziennik Ustaw 2010
Spain	1 f/ml	INSHT
Sweden	1 f/ml	Hygieniska gränsvärden och åtgärder mot luftföroreningar

Switzerland	1 f/ml	SUVA
UK	2 f/ml	EH40/2005
GCC	1 f/ml	Abu Dhabi OSHAD
South Africa	5mg/m <sup>3</sup>	Regulation 1179 – Hazardous Chemical Substances 2007

## Information on monitoring procedures

United Kingdom

MDHS 59 specific for MMVF: "Man-made mineral fibre - Airborne number concentration by phase-contrast light microscopy" and MDHS 14/4 "General methods for sampling and gravimetric analysis of respirable and inhalable dust"

NIOSH

NIOSH 0500 "Particulates not otherwise regulate, total"

NIOSH 0600 "Particulates not otherwise regulate, respirable"

NIOSH 7400 "Asbestos and other fibres by PCM"

## 8.2 - Exposure controls

### 8.2.1 APPROPRIATE ENGINEERING CONTROLS

Review your applications in order to identify potential sources of dust exposure.

Local exhaust ventilation, which collects dust at source, can be used. For example down draft tables, emission controlling tools and materials handling equipment.

Keep the workplace clean. Use a vacuum cleaner. Avoid brushing and compressed air.

If necessary, consult an industrial hygienist to design workplace controls and practices.

The use of products specially tailored to your application(s) will help to control dust. Some products can be delivered ready for use to avoid further cutting or machining. Some could be pre-treated or packaged to minimise or avoid dust release during handling.

Consult your supplier for further details

### 8.2.2 - Personal Protective Equipment

Skin protection:

Wear gloves and work clothes, which are loose fitting at the neck and wrists. Soiled clothes should be cleaned to remove excess fibres before being taken off (e.g. use vacuum cleaner, not compressed air). Wash work clothes separately from other clothing.

Eye protection:

As necessary wear goggles or safety glasses with side shields.

Respiratory protection:

For dust concentrations below the exposure limit value, RPE is not required but FFP2 respirators may be used on a voluntary basis.

For short-term operations where excursions are less than ten times the limit value use FFP2 respirators.

In case of higher concentrations or where the concentration is not known, please seek advice from your company and/or local Thermal Ceramics supplier.

Information and training of workers

Workers should be trained on good working practices and informed on applicable local regulations.

### **8.2.3 - Environmental Exposure Controls**

Refer to local, national or European applicable environmental standards for release to air water and soil.

For waste, refer to section13

## **9 - Physical and chemical properties**

<b>Information on basic physical and chemical properties</b>	Not applicable
<b>Appearance</b>	White fibre/blanket
<b>Odour</b>	None
<b>Odour threshold</b>	Not Applicable
<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	> 1200°C
<b>Initial boiling point and boiling point range</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not Applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	Not applicable
<b>Vapour pressure</b>	Not applicable
<b>Vapour density</b>	Not Applicable
<b>Relative density</b>	50-240 kg/m3
<b>Solubility(ies)</b>	Less than 1 mg/l
<b>Partition co-efficient: n-octanol/water</b>	Not applicable
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not Applicable
<b>Viscosity</b>	Not Applicable
<b>Explosive properties</b>	Not applicable
<b>Oxidising properties</b>	Not applicable

## **10 - Stability and Reactivity**

### **10.1 - Reactivity**

The material is stable and non-reactive.

### **10.2 - Chemical Stability**

AES is inorganic, stable and inert

### **10.3 - Possibility of Hazardous Reactions**

None

### **10.4 - Conditions to Avoid**

Please refer to handling and storage advice in Section 7

### **10.5 - Incompatible Materials**

None

## **10.6 - Hazardous decomposition products**

Upon heating above 900°C for sustained periods, this amorphous material begins to transform to mixtures of crystalline phases. For further information please refer to Section 16.

## **11 - Toxicological information**

### **Toxicokinetics, metabolism and distribution**

#### **11.1.1 BASIC TOXICOKINETICS**

Exposure is predominantly by inhalation or ingestion. Man-made vitreous fibres of a similar size to AES have not been shown to migrate from the lung and/or gut and do not become located in other organs of the body

Fibres contained in the products listed in the title have been designed to be rapidly cleared from lung tissue. This low biopersistence has been confirmed in many studies on AES using EU protocol ECB/TM/27(rev 7). When inhaled, even at very high doses, they do not accumulate to any level capable of producing a serious adverse biological effect.

#### **11.1 - Information on toxicological effects**

In lifetime chronic studies there was no exposure-related effect more than would be seen with any "inert" dust. Subchronic studies at the highest doses achievable produced at worst a transient mild inflammatory response. Fibres with the same ability to persist in tissue do not produce tumours when injected into the peritoneal cavity of rats.

#### **Irritant properties**

Superwool fibres are negative when tested using approved methods (OECD TG 404). Like all man-made mineral fibres and some natural fibres, fibres contained in this product can produce a mild mechanical irritation resulting in temporary itching or rarely, in some sensitive individuals, in a slight temporary reddening. Unlike other irritant reactions this is not the result of allergy or chemical skin damage but is caused by mechanical effects.

## **12 - Ecological information**

### **a - Ecotoxicity (aquatic and terrestrial, where available)**

#### **12.1 - Toxicity**

These products are insoluble materials that remain stable overtime and are chemically identical to inorganic compounds found in the soil and sediment; they remain inert in the natural environment. No adverse effects of this material on the environment are anticipated.

#### **12.2 - Persistence and degradability**

Not established

#### **12.3 - Bioaccumulative potential**

Not established

#### **12.4 - Mobility in soil**

No information available

### **12.5 - Results of PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

### **12.6 - Other adverse effects**

No additional information available

## **13 - Disposal Considerations**

### **13.1 - Waste treatment methods**

Waste from these materials may be generally disposed of at a landfill, which has been licensed for this purpose. Please refer to the European list (Decision N° 2000/532/CE as modified) to identify your appropriate waste number, and insure national and/or regional regulations are complied with.

Unless wetted, such a waste is normally dusty and so should be properly sealed in containers for disposal. At some authorised disposal sites, dusty waste may be treated differently in order to ensure they are dealt with promptly to avoid them being windblown. Check for any national and/or regional regulations, which may apply.

## **14 - Transport information**

### **Transport**

#### **14.1. UN number**

Not Applicable

#### **14.2. UN 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**

Not Applicable

#### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not Applicable

## **15 - Regulatory information**

### **15.1 - Safety health and environment regulations/legislation specific for the substances or mixtures**

EU regulations:

- Regulation (EC) No 1907/2006 dated 18th December 2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 dated 20th January 2009 on classification, labelling and packaging of substances and mixtures (OJ L 353)
- Annex of Regulation (EU) 2015/830
- Commission regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
- The 1st Adaptation to Technical Progress (ATP) to Regulation (EC) No 1272/2008 enters into force on 25 September 2009.

#### **PROTECTION OF WORKERS**

Shall be in accordance with several European Directives as amended and their implementations by the Member States:

- a) Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (OJEC (Official Journal of the European Community) L 183 of 29 June 1989, p.1).
- b) Council Directive 98/24/EC dated 7 April 1998 "on the protection of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998, p.11).

#### **OTHER POSSIBLE REGULATIONS**

Member States are in charge of implementing European Directives into their own national regulation within a period of time normally given in the Directive. Member States may impose more stringent requirements. Please always refer to any national regulation.

### **15.2 - Chemical Safety Assessment**

A Chemical Safety Assessment has been carried out for AES and CSR can be provided on request.

## **16 - Other Information**

### **Useful references**

(The directives which are cited must be considered in their amended version)

- Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (OJEC L 183 of 29 June 1989, p.1).
- Regulation (EC) No 1907/2006 dated 18th December 2006 on registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 dated 20th January 2009 on classification, labelling and packaging of substances and mixtures (OJ L 353)
- Council Directive 98/24/EC of 7 April 1998 "on the protection of the health and safety of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998, p.11).

## **Precautionary measures**

### Information on after service heated fibres

In almost all applications high temperature insulating wools products (HTIW) are used as an insulating material helping keeping up temperature at 900°C or more in a closed space. As only a thin layer of the insulation hot face side is exposed to high temperature, respirable dust generated during removal operations does not contain detectable levels of crystalline silica.

In applications where the material is heat soaked, duration of heat exposure is normally short and a significant devitrification allowing CS to build up does not occur. This is the case for waste mould casting for instance.

Toxicological evaluation of the effect of the presence of CS in artificially heated HTIW material has not shown any increased toxicity in vitro. The results from different combinations of factors like increased brittleness of fibres, or micro crystals embedded in the glass structure of the fibre and therefore not biologically available may explain the lack of toxicological effects.

IARC evaluation as provided in Monograph 68 is not relevant as CS is not biologically available in after service HTIW and respirable dust generated during removal operations does not contain detectable levels of crystalline silica. <http://www.iarc.fr/en/publications/pdfs-online/index.php>

High concentrations of fibres and other dusts may be generated when after-service products are mechanically disturbed during operations such as wrecking. Therefore ECFIA recommends:

- a) Control measures are taken to reduce dust emissions; and
- b) All personnel directly involved wear an appropriate respirator to minimise exposure and comply with local regulatory limits.

## **CARE Program**

The trade association representing the European high temperature insulation wool industry (ECFIA) has undertaken an extensive hygiene programme for High Temperature Insulation Wool (HTIW). The objectives are twofold: (i) to monitor workplace dust concentrations at both manufacturers' and customers' premises, and (ii) to document manufacturing and use of HTIW products from an industrial hygiene perspective in order to establish appropriate recommendations to reduce exposures. The initial results of the programme have been published. If you wish to participate in the CARE programme, contact ECFIA or your Thermal Ceramics' supplier.

## **Uses advised against**

### **Website**

For more information connect to:

The Morgan Thermal Ceramics' website: (<http://www.morganthermalceramics.com/>)

Or ECFIA's website: (<http://www.ecfia.eu>)

## **Revision Summary**

Update to Section 3

## **Technical data sheets**

For more information on individual products please see the relevant technical data sheet available from <http://www.morganthermalceramics.com/downloads/datasheets>

## **Other Information**

### **NOTICE:**

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However safe as provided by law, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product (however, this shall not act to restrict the vendor's potential liability for negligence or under statute).