

FACT SHEET

HEALTH & SAFETY



Health & Safety - the hazard classification of man-made vitreous (silicate) fibres in the European Union (EU)

In 1997 the European Commission added man-made vitreous (silicate) fibres (MMVFs) to the list of dangerous (hazardous) substances under the European Union Directive 67/548/EEC. This Directive classifies substances according to their specific hazard and sets out requirements for hazard communications to users through packaging, labelling and material safety data sheets.

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- Some MMVFs are classified as category 2 carcinogens (substances which should be regarded as if they are carcinogenic to man).
- Most commercial MMVFs are classified, by default, as category 3 carcinogens (substances which cause concern for man owing to possible carcinogenic effects). However, these MMVFs may be exonerated from category 3 carcinogen classification if they meet certain criteria in the Directive².

For high temperature insulation wools, this framework classifies Refractory Ceramic Fibres (RCFs) as category 2 carcinogens and exonerates the Superwool[®] range of products from any carcinogen classification.

In 2008 a new regulation - classification, labelling and packaging of substances and mixtures (regulation 1272/2008/EEC) came into force with the main aim of bringing EU C+L into line with GHS.

Under this new regulation:

Cat 1 = 1a Cat 2 = 1b Cat 3 = 2

Notes Q and R still apply therefore:

RCF (refractory ceramic fibre) = 1b

AES (alkaline earth silicate) such as Superwool[®] fibre = Exonerated

The consequences of carcinogen hazard classification in the European Union

Classification of RCFs in the European Union as category 2(1b) carcinogens triggered a number of downstream regulations both across the European Union and in individual Member States. These require measures to be taken by Member States to restrict the use of and control exposures to RCFs in order to minimise possible adverse impacts to human health and the environment. The classification numbering has changed, but the regulation still remains the same.

The measures include:

- Prohibiting manufacturers and suppliers from placing RCFs on the market for use by the general public (Directive 76/769/EEC).
- Requiring employers using RCFs to seek a substitute which would present a lower risk to the health of workers, or to contain the RCFs and implement measures to reduce occupational exposure to the lowest technically achievable (Directive 2004/37/EC).
- Handling and disposing of waste RCFs from manufacture and use as hazardous substances, by a licensed waste contractor and in an appropriately licensed landfill (Directives 91/689/EEC and 1999/31/EC).

In January 2010, the EU declared RCF to be an SVHC (Substance of Very High Concern) and added it to Annex XV of the European REACH regulation. This initiated new controls applying to companies wishing to import articles containing RCF into the EU and also started the process of evaluation which may lead to RCF uses requiring authorisation. Further information on this subject can be found at www.morganthermalceramics.com

These downstream consequences have applied to the marketing and use of RCFs since their classification as category 2(1b) carcinogens, and have resulted in increased costs of compliance for manufacturers, suppliers and users of RCF.

They do not apply to the Superwool® range of products³.

Additionally, European Union Member States have the right to implement their own worker protection measures, such as the setting of Occupational Exposure Limits. Many Member States have introduced lower Occupational Exposure Limits for MMVFs since the 1997 classification. Some of the low Occupational Exposure Limits set, or proposed, in Europe for RCFs are very low and difficult to achieve.

Why Superwool® products?

For many years the European high temperature insulation wool industry association (ECFIA ⁴, www.ecfia.org) has had a Product Stewardship Programme, which includes:

- Human effects research: such as sponsoring human health surveys and research on the biological effects of fibres.
- Exposure assessment: study of workplace controls and workplace monitoring. (These aspects of product stewardship in Europe are known as the CARE programme for Controlled And Reduced Exposure.)
- Product research: the search for new materials which might release less dust or meet the requirements for exoneration from carcinogenic classification.
- Special studies: research on such subjects as waste, production of communication bulletins on the above efforts, material safety data sheets, safe handling guidelines etc.

The development and marketing of Superwool® **Plus**™ fibre is a result of Morgan Thermal Ceramics' commitment to this Product Stewardship Programme.

¹ As amended by European Commission Directive 97/69/EC

² See Notas Q and R of Directive 67/548/EEC (replaced by CLP regulation 1272/2008/EEC)

³ Superwool meets the criteria for exoneration from carcinogen classification in Nota Q of Directive 67/548/EEC (replaced by CLP regulation 1272/2008/EEC)

⁴ Member companies of ECFIA manufacture and supply RCFs and other high temperature insulation wools



Superwool[®] Plus[™]

Insulating fibre

Features

Benefits

An engineered solution (unique)

Takes insulation beyond normal performance

Patented technology

Proven chemical formulation

Exonerated from Carcinogen classification under
Nota Q of European Directive 67/548

Restrictions on use do not apply. No special
requirements for dust control, supply to the
general public or waste disposal

Lower thermal conductivity

Improves insulation by 20%

Up to 30% more fibres

Efficient prevention of heat transfer and
greater strength

Less shot

Cleaner workplace

High Fibre Index

Up to 20% reduction in thermal
conductivity giving energy saving

Stronger with good handleability (no tearing)

Ease of installation saving time and waste

Improved handling

Operator satisfaction

Soft & smooth feel

Less mechanical skin irritation

Consistent use of pure raw materials

Higher classification temperature,
low shrinkage and consistent quality

Lower density grade for the same result

Material weight savings up to 25%

Thinner lining for the same result

Create more working space within unit

Resistant to vibration

Allows long lifetime under vibration
conditions where other products fail

An environmental solution

Potential savings on waste disposal

Worldwide production

Availability



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For more information on our products, please refer to the Technical Datasheet Section and the MSDS Information Section on our website www.morganthermalceramics.com

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SUPERWOOL® is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). This product may be covered by one or more of the following patents, or their foreign equivalents:

SUPERWOOL® PLUS™ products are covered by patent numbers:
US5714421, US5994247, US6180546, US7259118, and EP0621858.

SUPERWOOL® 607HT™ products are covered by patent numbers:
US5955389, US6180546, US7259118, US7470641, US7651965, US7875566, EP0710628, EP1544177, and EP1725503

A list of foreign patent numbers is available upon request to The Morgan Crucible Company plc.

For all enquiries please contact: marketing.tc@morganplc.com

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