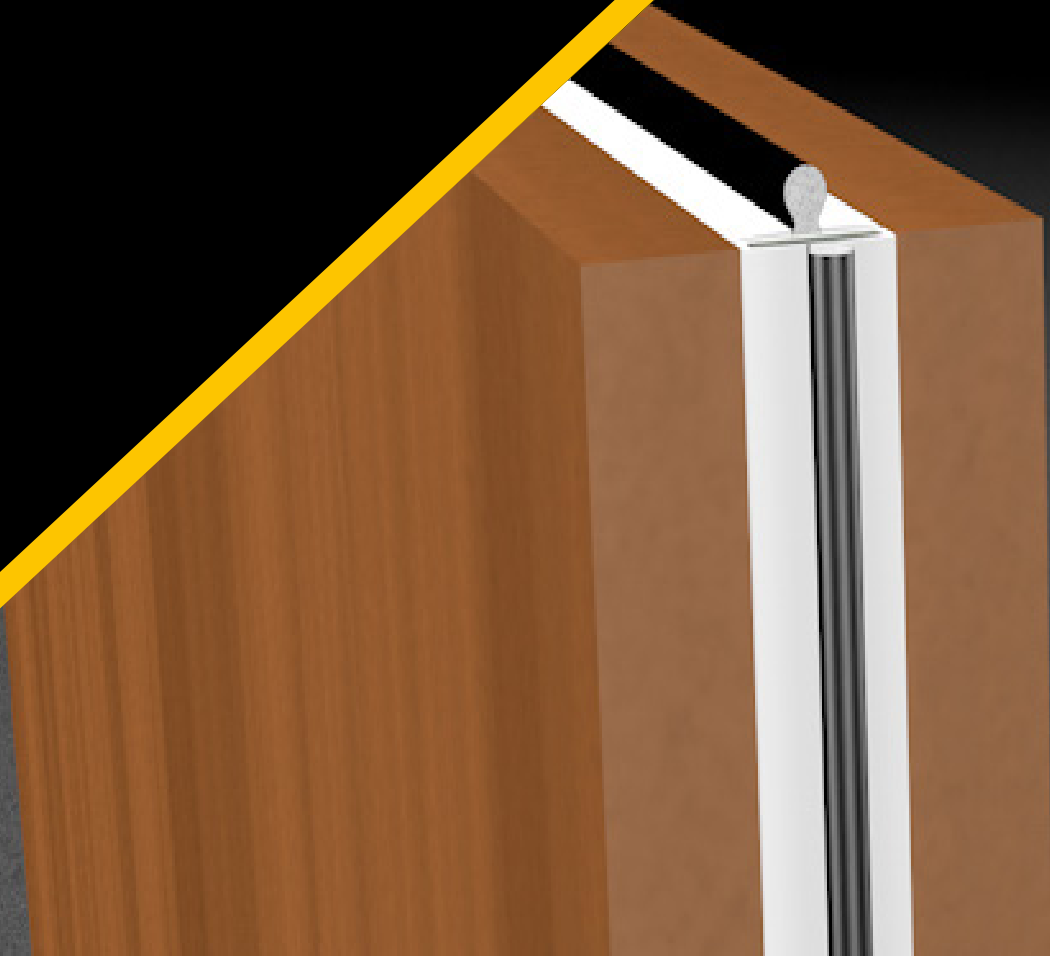


Safety Data Sheet

Astro Quad Seal

Revision 2 - Oct 2016



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

1.1 Product identifier

Product Name : Astro Quad Seal

Product Code : AF1004Q , AF1504Q , AF2004Q , AF2504Q

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

Use of substance / mixture : Expands when heated to act as a fire stop. Main application is in fire protection.

1.3. Details of the supplier of the safety data sheet

Company Name : Astroflame (Fireseals) LTD
Unit 8 , I.O Centre
Stephenson Road
Segensworth
Fareham
PO15 5RU
United Kingdom

Tel Number : (0) 44 1329 844500

Fax Number : (0) 44 1329 844600

Email : sales@astroflame.com

1.4. Emergency telephone number

Emergency telephone : (0) 44 1329 844 500 (Office hours only: 08:00 - 17:00)

Section 2: Classification of the substance or mixture

2.1. Classification of the substance or mixture

Classification according to Regulation : The product is not classified according to CLP regulation.
(EC) No 1272/2008 [CLP/GHS]

Classification according to Directive : Not classified.
67/548/EEC or 1999/45/EC

2.2. Label elements

- Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]** : The product has not been classified and marked in accordance with Regulation (EC) No 1272/2008.
- Supplemental hazard information (EU)** : These products contain low bio-persistence mineral fibres
- These products are not hazardous in the form in which they are shipped by the manufacturer.
- However, they may produce low levels of fibre-containing dust as a result of downstream activities such as cutting.
- These products contain graphite which is not recommended for electrical purposes. Note that dust from these products may compromise the integrity of electrical or electronic equipment.

2.3. Other hazards

- Other Hazards** : Mild mechanical irritation to skin, eyes and upper respiratory system may result from exposure, however any effects are usually temporary.

Section 3: Composition/information on ingredients

3.2. Mixtures

- Mixtures** : These products are made from varying amounts of low bio-persistence mineral fibres, graphite, organic fibres and binders.

Section 4: First aid measures

4.1. Description of first aid measures

- General** : The main hazards arise from downstream activities such as cutting.
- Eye contact** : In case of eye contact, irrigate abundantly with water. Seek medical attention.
- Inhalation** : Avoid breathing dust. If breathing difficulties are experienced whilst cutting, remove to fresh air or a ventilated area and seek medical advice.
- Ingestion** : If small quantities are ingested, seek medical advice.

4.2. Most important symptoms and effects , both acute and delayed

Symptoms : No symptoms expected.
Effects : No effects expected.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for Doctor : None required.
Special Treatment : None required.

Section 5: Fire-Fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Not flammable
Unsuitable extinguishing media : Not applicable.

5.2. Special hazards arising from the substance or mixture

Exposure hazards : None.

5.3. Advice for fire - fighters

Advice for fire - fighters : None.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Avoid inhaling dust.
Protective equipment : Protective clothing should be provided for operators along with protective equipment. (shown in Section 8)
Emergency procedures : None required.
For emergency responders : Avoid inhaling dust
Personal protective equipment : Protective clothing should be provided along with protective equipment (shown in section 8)

6.2. Environmental precautions

Environmental : Remove dust by using a vacuum cleaner fitted with 'H' type filters. Where vacuum cleaning is not possible, dampen down dust and collect whilst still damp. Suitable bags are required for disposal.

6.3. Methods and materials for containment and cleaning up

- For containment** : Dampen down any dust spillages as soon as possible and collect whilst still damp.
- For cleaning up** : Remove dust using vacuum with 'H' type filters and suitable bags for containment.
- Dust should be packaged into impermeable plastic sacks which should be sealed. Such waste should then be disposed of according to local regulations.

6.4. Reference to other sections

- Reference to other sections** : Section 7 for Handling and Storage and Section 8 for Protective Equipment.

Section 7: Handling and storage

7.1. Precautions for safe handling

- Protective measures** : No special protective measures are normally required
- Advice on safe handling** : Normal safe precautions for handling can be employed.
- Fire prevention** : Products are not flammable.
- Aerosol and dust generation prevention** : Small amounts of dust may be generated if products are allowed to abrade against each other
- Environmental precautions** : No special precautions are required.
- Advice on general occupational hygiene** : Wear protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures and storage conditions** : Both un-cut and cut products should be packed to prevent movement and abrasion during transit and to prevent absorption of water.
- Otherwise normal safe precautions for storage can be used.
- To avoid damage and distortion, store on a smooth level surface, in a fully supported position off the ground and in a dry place.
- Packaging materials** : Card cartons.
- Requirements for storage** : Dry location.
- Storage class** : N/A.
- Materials to avoid** : No special requirements.
- Further information on storage conditions** : N/A.

7.3. Specific end use(s)

Specific end use(s) : See references to dust hazards during cutting, Section 4.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Control Parameters : Reference should be made to local and country-specific occupational exposure limits for dust and low bio-persistence mineral fibres.

UK monitoring methods can be found as follows:

MDHS 59 – Machine-made fibres airborne number concentration and classification by phase contrast light microscopy.

NIOSH 0500 – Particulates not otherwise regulated, total.

NIOSH 0600 – Particulates not otherwise regulated, respirable.

NIOSH 7400 – Asbestos and other fibres by PCM.

8.2. Exposure Controls

Exposure Controls : Fit and use appropriate local exhaust ventilation systems for cutting and machining operations.

Use appropriate personal protective equipment to avoid dust inhalation.

Maintain a clean workspace using a vacuum cleaner.

MEL/OES Low bio-persistence mineral fibres 5 mg/m³ 8 hr TWA (MEL)

9: Information on basic physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State : Solid material
Appearance : Rigid sheet
Colour : Grey
Odour : N/A
Odour threshold : N/A
pH : See references to dust hazards during cutting, Section 4.

Boiling point	:	N/A
Flash point	:	N/A
Evaporation rate	:	Grey
Flammability (solid, gas)	:	N/A
Upper/lower flammability or explosive limits	:	N/A
Upper explosive limit	:	N/A
Lower explosive limit	:	N/A
Melting/Freezing Point	:	N/A but see Astroflame Technical Brochure for maximum working temperatures.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity : Stable and non-reactive.

10.2. Chemical Stability

Chemical stability : Stable and inert.

10.3. Possibility of hazardous reactions

Hazardous reactions : None.

10.4. Conditions to avoid

Conditions to avoid : None.

10.5. Incompatible materials

Incompatible Materials : None.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products: None.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values : Exposure is mainly due to low levels of dusts generated during downstream activities such as cutting. Low bio-persistence mineral fibres as used in these products have been developed to be quickly and effectively cleared from lung tissues.

Symptoms/routes of exposure

Acute Effects

- Acute Inhalation Toxicity** : Nose and throat irritation
- Skin Irritation** : Mild irritation.
- Eye Irritation** : Irritation.

Chronic Effects

- Respiratory or Skin Sensitisation** : Irritation of both the respiratory tract and skin is by mechanical means and is not the result of an allergic reaction or chemical damage.

Section 12: Ecological information

12.1. Toxicity

- Toxicity** : is insoluble in water and remains stable over time. The major constituents are similar in their chemical composition to naturally occurring materials and minerals.

12.2. Persistence and Degradability

- Persistence and degradability** : Not established

12.3. Bioaccumulative potential

- Bioaccumulative potential** : Not established.

12.4. Mobility in soil

- Mobility in Soil** : No information available.

12.5. Results of PBT and vPvB assessment

- PBT identification** : The product do not contain substances that are considered as either PBT or vPvB.

12.6. Other adverse effects

- Other adverse effects** : No other additional information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

- Product/Packaging Disposal** : Packaging can be cleaned and recycled.
- Waste Treatment Options** : Waste from the product may be disposed of in landfill according to local regulations.

Section 14: Transport information

14.1. UN Number

- UN Number** : Product is not dangerous according to current transport regulations.

14.2. UN Proper Shipping Name

- UN Proper Shipping Name** : N/A

14.3. Transport Hazard Class(es)

- Transport Hazard Class(es)** : N/A

14.4. Packing Group

- Packing Group** : N/A

14.5. Environmental Hazards

- Environmental Hazards** : N/A

14.6. Special Precautions for User

- Special Precautions for User** : N/A

14.7. Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code** : N/A

Section 15: Regulatory information

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

- EU Regulations** : Regulation (EC) No 1272/2008, 20th January 2009, on Classification, Labelling and Packaging of Substances and Mixtures (OJL 353).
- The 7th Adaption of Technical Progress (ATP) to Regulation (EC) No 1272/2008 was published on 15th July 2015.
- Worker Protection** : In accordance with the following directives and their amendments:
- Council Directive 89/391/EEC, 12th June 1989 on the Introduction of measures to encourage improvements in the health and safety of workers at work.
- Council Directive 98/24/EC, 7th April 1998 on the Protection of workers from the risks related to chemical agents at work

15.2. Chemical safety assessment

- Chemical Safety Assessment** : Available on request

Section 16: Other information

16.1. Indication of Changes

- Indication of Changes** : All sections updated October 2016.

16.2. Abbreviations and Acronyms

- Abbreviations and Acronyms** : None used.

16.3. Key Literature References and Sources of Data

- Key Literature References and Sources of Data** : See main sections.

16.4. Classification for Mixtures and Used Evaluation Method According to Regulation (EC) 1207/2008 [CLP]

- Classification for Mixtures and Used Evaluation Method According to Regulation (EC) 1207/2008 [CLP]** : See Section 2.

16.5. Relevant R-, H- and EUH Phrases (Number and Text)

Relevant R-, H- and EUH Phrases (Number and Text) : N/A

16.6. Training Advice

Training Advice : See Astroflame Products Technical Brochure for information on use.

16.7. Further Information

Further Information : For further information, visit www.astroflame.com

Other information

Other information : This safety data sheet is prepared in accordance with Commission Regulation (EU) No453/2010.

* indicates text in the SDS which has changed since the last revision.

Legal disclaimer : The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.