

MATERIAL SAFETY DATA SHEET

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|-----------------|---------------------------------------|
| Product name | Quelfire QF4 Fire Protection Compound |
| Product Code(s) | QF4 |
| Revision Date | 01/01/2021 |
| Revision number | 02 |

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

1.1. Product identifier

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|--------------|---------------------------------------|
| Product name | Quelfire QF4 Fire Protection Compound |
| Product Code | QF4 |

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

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| Main Applications – non exhaustive list | Passive Fire stopping mortar infill for service penetrations |
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1.3. Details of the supplier of the safety data sheet

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|--------------|--|
| Company Name | Quelfire Limited Springvale Industrial Estate Millbuck Way Sandbach CW11 3HT |
| Tel | 0161 928 7308 |
| Fax | 0161 924 1340 |
| Email | technical@quelfire.co.uk |

1.4. Emergency telephone number

| | |
|----------------------------|-----------------------------------|
| Emergency telephone number | 0161 928 7308 (Office hours only) |
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Section 2: Hazards Identification


2.1. Classification of the substance or mixture

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| Classification according to Regulation (EC) No. 1272/2008 [CLP] | <p>Hazard Categories:</p> <p>Skin Corrosion/ irritation: Skin Irrit. 2 Serious eye damage/ eye irritation: Eye Da. 1 Specific target organ toxicity – single exposure: STOT SE 3</p> <p>Hazard Statements:</p> <p>Causes skin irritation Causes serious eye damage. May cause respiratory irritation.</p> |
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2.2. Label elements

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| Label according to Regulation (EC) No. 1272/2008 [CLP] | <p>Hazard components for labelling:</p> <p>Portland Cement Calcium Dihydroxide</p> <p>Signal word: Danger</p> |
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| | <p>Pictograms:</p> <div style="text-align: center;">  </div> <p>Hazard Statements:</p> <p>H315 – Causes skin irritation H318 – Causes serious eye damage H335 – May cause respiratory irritation</p> <p>Precautionary statements:</p> <p>P101 – if medical advice is needed, have product container or label at hand. P102 – Keep out of reach of children. P103 – Read label before use P261 – Avoid breathing dust/fume/gas/mist/vapours/spray. P271 – Use only outdoors or in a well-ventilated area. P302+P352 – IF ON SKIN: wash with plenty of soap and water. P310 – Immediately call a Poison centre/ Doctor P321 – Specific treatment (See information on this label) P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 – Call a Poison Centre if you feel unwell P362+P364 – Take off contaminated clothing and wash it before reuse. P332+P313 – If skin irritation occurs: Get medical attention/ advice. P403+P233 – Store in a well-ventilated place. Keep container tightly closed. P405 – Store locked up. P50 – Dispose of contents/ container in accordance with local/ regional/ national/ international Regulations.</p> <p>Additional advice on labelling:</p> <p>The product is labelled in accordance with Regulation (EC) no. 1272/2008 (GHS).</p> |
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2.3. Other hazards

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| <p>Adverse physicochemical, human health and environmental effects</p> | <p>According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT/ vPvB substance.</p> <p>Dust particles, like other inert materials, may mechanically irritating the eyes. May cause irritation of the respiratory tract. Aqueous solution is alkaline. May cause eye/ skin irritation.</p> <p>The preparation is low in chromate because the level of sensitizing chromium (VI) is reduced by additives to less than 2 ppm in the cement content of the ready-to-use mortar. Prerequisite for the effectiveness of the chromate reduction is the proper storage and observance of the expiry date (see point 7.2). in case of improper storage (ingress of moisture) or superimposition, the contained chromate reducer may lose its effectiveness.</p> |
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Section 3: Composition/information on ingredients

3.1. Substances

| Name | Product Identifier | % | EC No. | GHS Classification |
|---------------------|----------------------|----------|-----------|--|
| Portland Cement | (CAS-No.) 65997-15-1 | 10-25 | 266-043-4 | Skin Irrit 2, Eye Dam 1, STOT SE 3; H315, H318, H335 |
| Calcium Dihydroxide | (CAS-No.) 1305-62-0 | 2.5 - 10 | 215-137-3 | Skin Irrit 2, Eye Dam 1, STOT SE 3; H315, H318, H335 |

3.2. Impurities

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| Not relevant |
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Section 4: First aid measures

4.1. Description of first aid measures

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| General Information | Water forms corrosive alkaline solutions. (pH 11-11.5) – alkaline reacts with water and becomes solid. Remove contaminated clothing immediately and dispose of safely. Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid dust deposits. |
| Skin contact | Remove contaminated soaked clothing immediately. In case of contact with the skin wash off immediately with plenty of water. Consult a doctor if skin irritation persists. |
| Eye contact | Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes. Do not rub the eyes – contains inorganic fillers, which irritate the eyes mechanically like other inert materials. Rinse thoroughly with plenty of water., also under eyelids. Consult a doctor if skin irritation persists. |
| Ingestion | Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse out the mouth and give plenty of water to drink. Consult a physician. |
| Inhalation | Take affected person into fresh air. Consult a physician. Get medical attention if respiratory irritation develops or if breathing becomes difficult. |

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

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| Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Dust particles, like other inert materials, are mechanically irritating to the eyes. |
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4.3. Indication of any immediate medical attention and special treatment needed

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| Treat symptoms |
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Section 5: Fire-Fighting measures

5.1. Extinguishing media

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| Suitable Extinguishing Media | Product itself does not burn. Use firefighting measures that suit the environment and products stored. Foam, CO2, Dry chemical, water-spray |
| Unsuitable extinguishing media | Full water jet |

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5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for fire-fighters

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| Advice for fire-fighters | In case of fire, wear suitable respiratory equipment with positive air supply. Additional information: Knock down dust with a water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with local regulations. |
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Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin or mucous membrane. Avoid dust formation. Do not breathe dust. Ensure adequate ventilation, especially in confined areas.

6.2. Environmental precautions

Do not discharge large amounts into drains or bodies of water. Inform competent authority about release into sewage, ground or into waters.

6.3. Methods and materials for containment and cleaning up

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| Clean-up procedures | Pick up mechanically, avoiding dust and dispose in suitable recipients. Use chemical neutralizers. |
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6.4. Reference to other sections

Refer to section 8 'Exposure controls/ personal protection' and section 13 'Disposal Considerations'

Section 7: Handling and storage

7.1. Precautions for safe handling

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| Handling requirements | No special measures necessary if used correctly. Provide appropriate exhaust ventilation at machinery and not at places where dust can be generated. Ensure adequate ventilation, especially in confined areas. Avoid the formation of dust. Avoid contact with skin, eyes and clothing. Take the usual precautions when handling chemicals. When using do not eat, drink or smoke. |
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7.2. Conditions for safe storage, including any incompatibilities

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| Storage conditions | Keep packaging closed when not in use. Protect from moisture Store in a dry, cool and well-ventilated place. Keep only in original container. |
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7.3. Specific end use(s)

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| Specific end use(s) | See identified use in section 1.2. |
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Section 8: Exposure controls/personal protection

8.1. Control parameters

| CAS No. | Substance | ppm | Mg/m ³ | Category | Origin |
|------------|----------------------------------|-----|-------------------|----------|--------|
| 1305-62-0 | Calcium Hydroxide | - | 5 | TWA (8h) | WEL |
| 65997-15-1 | Portland Cement, respirable dust | - | 4 | TWA (8h) | WEL |

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8.2. Exposure controls

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| Engineering measures | Ensure there is sufficient ventilation of the area, especially in confined spaces |
| Protective and hygiene measures | Take the usual precautions when handling chemicals. Clean skin thoroughly after working. Use barrier skin cream. Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing immediately and dispose of safely. Wash hands before breaks and at the end of workday. Avoid contact with the skin and the eyes. At work do not eat, drink, smoke or take drugs. |
| Respiratory protection | In case of prolonged exposure to airborne dust concentrations, wear dust mask Type P2 or above. |
| Hand protection | Chemical-resistant gloves, appropriate safety gloves for the site. Follow the recommendations of the glove manufacturer for the breakthrough properties especially for the workplace conditions involving mechanical stress and contact duration. Wash hands at the end of each work session. |
| Eye protection | Tightly fitting goggles. Use equipment for eye protection tested and approved under appropriate standards. |
| Skin protection | Protective clothing |

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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| State | Powder |
| Appearance | Grey |
| Odour | Odourless |
| Odour threshold | Not applicable |
| pH | Not applicable |
| Melting point | Not applicable |
| Initial boiling point and boiling range | Not applicable |
| Flash point | Not applicable |
| Sustaining combustion | Not applicable |
| Flammability: solid | Not applicable |
| Explosive properties | The product is not explosive |
| Lower explosion limits | Not applicable |
| Upper explosion limits | Not applicable |
| Ignition temperature | No data available |
| Auto-ignition temperature: solid | No data available |
| Decomposition temperature | No data available |
| Oxidizing properties: not fire promoting | No data available |
| Vapour pressure | Not applicable |
| Density | No data available |

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| Water solubility | Slightly soluble |
| Solubility in other solvents | No data available |
| Partition coefficient | No data available |
| Viscosity/ dynamic | Not applicable |
| Viscosity/ kinematic | Not applicable |

9.2. Other information

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| Solid content – 100% |
| No data available |

Section 10: Stability and reactivity

10.1. Reactivity

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| Reactivity with the intended use is not associated with any hazards |
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10.2. Chemical stability

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| Stable under normal conditions. |
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10.3. Possibility of hazardous reactions

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| No hazardous reactions |
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10.4. Conditions to avoid

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| Protect from moisture |
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10.5. Incompatible materials

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| Strong acids, strong oxidizing agents |
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10.6. Hazardous decomposition products

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| No decomposition if stored and applied as directed. |
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Section 11: Toxicological information

11.1. Information on toxicological effects

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| Acute toxicity | Based on available data, the classification criteria are not met. |
| Skin corrosion/ irritation | Causes skin irritation. |
| Serious eye damage/ irritation | Causes serious eye damage |
| Respiratory Irritation | Inhalation of duct may cause shortness of breath, tightness of the chest, a sore throat and cough. |
| Skin Irritation | Based on available data, the classification criteria are not met. Repeated or prolonged skin contact may cause skin irritation and/ or dermatitis and sensitization of susceptible persons. |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | Based on available data, the classification criteria are not met. |
| STOT-single exposure | Based on available data, the classification criteria are not met. |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, the classification criteria are not met |

Section 12: Ecological information

12.1. Toxicity

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| No data available |
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12.2. Persistence and degradability

Methods for the determination of biodegradability are not applicable to inorganic substances. Inorganic product.

12.3. Bioaccumulative potential

There is no indication of bioaccumulation potential

12.4. Mobility in soil

Not established

12.5 Results of PBT and vPvB assessment

According to regulation (EC) No 907/2006 (REACH) none of the substances, contained in this product are a PBT/ vPvB substance.

12.6. Other adverse effects

No specific adverse effects known

Section 13: Disposal considerations

13.1. Waste treatment methods

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| Regional legislation (waste) | Disposal must be done according to official regulations. |
| Waste treatment methods | <p>Dispose of contents/ container in accordance with licensed collector’s sorting instructions.</p> <p>Should not be disposed of with household waste.</p> <p>Do not empty into drains.</p> <p>Wet the leaked product with water and allow to solidify on air.</p> <p>List of wastes code – residues/ unused products:</p> <p>170101 – Construction and demolition wastes (including excavated soil from contaminated sites); concrete, bricks, tiles and ceramics: concrete</p> <p>List of wastes code – contaminated packaging:</p> <p>150101 – waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified; packaging (including separately collected municipal packaging waste); paper and cardboard packaging.</p> <p>Contaminated packaging:</p> <p>Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.</p> <p>Cleaning agent: water</p> |

Section 14: Transport information

14.1. UN number

Not relevant

14.2. UN proper shipping name

Not relevant

14.3. Transport hazard classes

| | |
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| In accordance with ADR/ RID/ IMDG/ IATA/ ADN | |
| ADR | Not Applicable |
| RID | Not Applicable |

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| IMDG | Not Applicable |
| IATA | Not Applicable |
| ADN | Not Applicable |

14.5. Environmental hazards

No

14.6. Special Precautions for user

| | |
|---------------------------|----------------|
| Overland Transport | Not Applicable |
| Transport by sea | Not Applicable |
| Air transport | Not Applicable |
| Inland waterway transport | Not Applicable |
| Rail transport | Not Applicable |

14.7. Transport in bulk according to annex II of MARPOL 73/78 and the IBC Code

Not relevant

Section 15: Regulatory information

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

15.1.1. EU-Regulations

| | |
|---|--------------|
| 2004/42/EC (VOC): | 0g/l |
| Information according to 2012/18/EU (SEVESO III): | Not relevant |

15.1.2 National Regulations

Slightly water contaminating

15.2. Chemical Safety Assessment

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|----------------------------|--|
| Chemical Safety Assessment | No chemical safety assessment has been carried out |
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Section 16: Other information

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| Abbreviations and acronyms | |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of dangerous goods by Road |
| ATE | Acute Toxicity Estimate |
| CAS-No. | Chemical Abstract Service Number |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 272/2008 |
| EN | European Standard |
| GHS | Globally Harmonized System of Classification, Labelling and Packaging of Chemicals |
| ICAO | International Civil Aviation Organisation |
| IMDG-Code | International Maritime Code for dangerous goods |
| IATA | International Air Transport Association |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |

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| | |
|-------|---|
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| vPvB | Very Persistent and Very Bioaccumulative |
| WGK | Water Hazard Class |

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|---|--------------------|
| Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 {CLP} | |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |

| | |
|--|-------------------------------|
| Relevant H and EUH statements (number and full text) | |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory damage. |

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|------------------|--|
| Data Sources | Regulation (EC) No1272/2008 of the European parliament and the council of 16 th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing directives 67/548/EC, and amending Regulation (EC) No 1907/2006 |
| 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. |