

# GHS Safety Data Sheet



Commercial Product Name: Fire Stop Foam

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## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product identifier**

**Commercial Product Name** Fire Stop Foam

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

**Relevant identified uses** PU foam with flame retardant  
**Recommended restrictions** None under normal processing. Observe technical data sheet.

### **1.3 Details of the supplier of the safety data sheet**

**Company designation** fischerwerke GmbH & Co. KG  
Weinhalde 14-18  
D-72178 Waldachtal  
Telephone: +49(0)7443 12-0  
FAX: +49(0)7443 12-4222  
Email: info-sdb@fischer.de

**Marketer** AnchorMark Pty. Ltd.  
Unit 1, 61 Waterview Close  
Dandenong South VIC 3175, Australia  
Telephone: +61 (0) 3 97992096  
FAX: +61 (0) 3 97992696  
Email: info@anchormark.com.au

### **1.4 Emergency telephone number**

**Emergency telephone number** FOR FIRST AID ADVICE CALL A POISONS INFORMATION CENTRE PHONE 13 11 26  
THIS NUMBER IS FOR USE IN AUSTRALIA ONLY

## **SECTION 2: Hazards identification**

### **2.1 Classification of the substance or mixture**

**GHS Classification** Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 STOT RE 2; H373 Aquatic Chronic 2; H411 Flam. Aerosol 1; H222 Carc. 2; H351

### **2.2 Label elements**

**Hazard pictogram**



GHS02



GHS07



GHS08

**Signal word**

Danger

**Hazardous component(s) to be indicated on label**

4, 4'-methylenediphenyl diisocyanate, isomers and homologues, 2, 2-bis(bromomethyl)propane-1, 3-diol

**\*H-statement(s)**

H222: Extremely flammable aerosol.  
H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335: May cause respiratory irritation.  
H351: Suspected of causing cancer.  
H373: May cause damage to organs through prolonged or repeated exposure.

**P-statement(s)**

P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.  
P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
P251: Pressurized container: Do not pierce or burn, even after use.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P501: Dispose of contents/container to special waste treatment.  
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

**Further information**

Contains isocyanates. May produce an allergic reaction.  
HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Buildup of explosive mixtures possible without sufficient ventilation.

## 2.3 Other hazards

**Particular information pertaining specific risk for human / environment** Contains isocyanates. See information supplied by the manufacturer.  
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.  
Also after use, do not open with force or burn.  
Do not spray on a naked flame or any other incandescent material.  
Keep away from sources of ignition - No smoking.  
In use, may form flammable/explosive vapour-air mixture.  
Keep away from children.

## **SECTION 3: Composition/information on ingredients**

### **Hazardous ingredients**

| <b>Ingredient</b>   | <b>CAS No.</b> | <b>GHS Classification</b>  | <b>Concentration</b> |
|---|----------------|--|----------------------|
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues | 9016-87-9      | Resp. Sens. 1; H334 Carc. 2; H351 STOT RE 2; H373 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 | 25.0 - 50.0 %        |
| Bis(2-ethylhexyl) tetrabromophthalat                        | 26040-51-7     | Eye Irrit. 2; H319 Aquatic Acute 1; H400   | 10.0 - 25.0 %        |
| tris(2-chloro-1-methylethyl) phosphate                      | 13674-84-5     | Acute Tox. 4; H302   | 10.0 - 25.0 %        |
| triethyl phosphate  | 78-40-0        | Acute Tox. 4; H302   | 10.0 - 25.0 %        |
| ethanediol, ethylene glycol                                 | 107-21-1       | Acute Tox. 4; H302 STOT RE 2; H373   | 10.0 - 25.0 %        |
| propane   | 74-98-6        | Flam. Gas 1; H220 Press. Gas; H280   | 2.5 - 10.0 %         |
| dimethyl ether  | 115-10-6       | Flam. Gas 1; H220 Press. Gas; H280   | 2.5 - 10.0 %         |
| 2,2-bis(bromomethyl)propane-1,3-diol                        | 3296-90-0      | Carc. 2; H351  | 2.5 - 10.0 %         |
| isobutane   | 75-28-5        | Flam. Gas 1; H220 Press. Gas; H280   | 2.5 - 10.0 %         |
| Difluorethane (Freon 152)                                   | 75-37-6        | Flam. Gas 1; H220 Press. Gas; H280   | 2.5 - 10.0 %         |

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

**General advice** If symptoms persist, call a physician.  
Take off all contaminated clothing immediately.  
Remove/Take off immediately all contaminated clothing.

**If inhaled** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If unconscious place in recovery position and seek medical advice.

**In case of skin contact** Use mechanical handling equipment.  
IF ON SKIN: Gently wash with plenty of soap and water.

**In case of eye contact** Use mechanical handling equipment.  
In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**If swallowed** If swallowed, seek medical advice immediately and show this container or label.

Clean mouth with water and drink afterwards plenty of water. Drink 1 or 2 glasses of water.  
Do NOT induce vomiting.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

**Suitable extinguishing media** Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Foam  
Water spray jet

**Extinguishing media which must not be used for safety reasons** High volume water jet

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

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases** Container may rupture on heating.  
Heating or fire can release toxic gas.  
May form explosive mixtures in air.

### **5.3 Advice for firefighters**

**Special protective equipment for firefighting** In the event of fire, wear self-contained breathing apparatus.  
In the event of fire and/or explosion do not breathe fumes.

**Additional information on firefighting** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Keep containers and surroundings cool with water spray. Container may rupture on heating.

## **SECTION 6: Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation, especially in confined areas.  
Keep away from sources of ignition - No smoking.  
Keep people away from and upwind of spill/leak.

### **6.2 Environmental precautions**

**Environmental precautions** The product should not be allowed to enter drains, water courses or the soil.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).

### **6.3 Methods and material for containment and cleaning up**

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Allow to solidify, use mechanical handling equipment.  
Ensure adequate ventilation.  
Do not flush with water.

### **6.5 Additional information**

**Other information** Treat recovered material as described in the section "Disposal considerations".  
Dispose of in accordance with local regulations.

## **SECTION 7: Handling and storage**

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

**Advice on safe handling** Handle and open container with care.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Vapours are heavier than air and may spread along floors.  
BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50°C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.

**Advice on protection against fire and explosion** Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.  
Take precautionary measures against static discharges.  
Do not spray on a naked flame or any other incandescent material.  
Keep away from sources of ignition - No smoking.  
In use, may form flammable/explosive vapour-air mixture.

### **7.2 Conditions for safe storage, including any incompatibilities**

**Storage space and container requirements** Keep containers tightly closed in a cool, well-ventilated place.  
Container may rupture on heating.  
Store in accordance with local regulations.

## **SECTION 8: Exposure controls/personal protection**

### **Ingredients with occupational exposure limits to be monitored**

#### **ethanediol, ethylene glycol**

| Long-term exposure value/ ppm | Long-term exposure value/ mg/m <sup>3</sup> | Short-term exposure value / ppm | Short-term exposure value / mg/m <sup>3</sup> | Note | Source   |
|-------------------------------|---|---------------------------------|---|------|--|
|                               | 10  |                                 |   | Sk   | WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS 18.April 2013 |
| 20                            | 52  | 40                              | 104   | Sk   | WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS 18.April 2013 |

#### **dimethyl ether**

| Long-term exposure value/ ppm | Long-term exposure value/ mg/m <sup>3</sup> | Short-term exposure value / ppm | Short-term exposure value / mg/m <sup>3</sup> | Source   |
|-------------------------------|---|---------------------------------|---|--|
| 400                           | 760   | 500                             | 950   | WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS 18.April 2013 |

**Respiratory protection** In case of inadequate ventilation wear respiratory protection.

**Hand protection** Wear protective gloves.

|                             |   |
|-----------------------------|---|
| <i>Suitable material:</i>   | butyl-rubber, Chloroprene, Nitrile rubber   |
| <i>Unsuitable material:</i> | PVC disposable gloves   |
| <i>Material thickness:</i>  | $\geq 0,5$ mm   |
| <i>Break through time:</i>  | >120 min  |
| <i>Remarks:</i>             | Replace when worn.  |
| <i>Reference substance:</i> | Request information on glove permeation properties from the glove supplier.. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). |

**Eye protection** Tightly fitting safety goggles

**Skin and body protection** Wear suitable protective equipment.

*Note:* Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**General protective and hygiene measures** Smoking, eating and drinking should be prohibited in the application area.

Avoid contact with skin, eyes and clothing.  
Take off all contaminated clothing immediately.  
Do not breathe vapors, mist or gas.  
Wash hands before breaks and at the end of workday.  
Keep away from food, drink and animal feedingstuffs.  
Use protective skin cream before handling the product.

**Information on environmental protection regulations** No special environmental precautions required.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

|                                   |  |
|-----------------------------------|--|
| <b>Form</b>                       | aerosol  |
| <b>Colour</b>                     | Various – see label                                      |
| <b>Odour</b>                      | characteristic   |
| <b>Boiling point [°C]</b>         | not applicable (Aerosol)                                 |
| <b>Flash point [°C]</b>           | not applicable (aerosol)                                 |
| <b>Density [g/cm<sup>3</sup>]</b> | $\approx 1,1$  |
| <i>Temperature:</i>               | 20 °C  |
| <b>Water solubility [g/l]</b>     | immiscible   |
| <b>Autoinflammability</b>         | not auto-flammable                                       |
| <b>Risk of explosion.</b>         | In use, may form flammable/explosive vapour-air mixture. |

### **9.2 Other information**

**Ignition temperature [°C]** > 200 °C

## **SECTION 10: Stability and reactivity**

### **10.3 Possibility of hazardous reactions**

**Hazardous reactions** No dangerous reaction known under conditions of normal use.

### **10.4 Conditions to avoid**

**Conditions to avoid** Container may rupture on heating.  
No decomposition if used as directed.

### **10.5 Incompatible materials**

**Materials to avoid** No dangerous reaction known under conditions of normal use.

## 10.6 Hazardous decomposition products

**Hazardous decomposition products** Carbon oxides  
nitrogen oxides (NO<sub>x</sub>)

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Hazardous ingredients

#### 4,4'-methylenediphenyl diisocyanate, isomers and homologues

| Oral toxicity [mg/kg] | Test criterion | Test species | Remarks  |
|-----------------------|----------------|--------------|----------|
| > 5000                | LD50           | rat          | OECD 423 |

| Dermal toxicity [mg/kg] | Test criterion | Test species |
|-------------------------|----------------|--------------|
| > 5000                  | LD50           | rabbit       |

| Inhalative toxicity [mg/l] | Test criterion | Exposure duration |
|----------------------------|----------------|-------------------|
| 1,5                        | LC50           | 4 h               |

**Irritant effect on the respiratory tract** Irritant

#### Bis(2-ethylhexyl) tetrabromophthalat

| Dermal toxicity [mg/kg] | Test criterion | Test species | Duration |
|-------------------------|----------------|--------------|----------|
| > 13500                 | LD50           | rabbit       | 24 h     |
| > 2800                  | LD50           | rat          | 24 h     |

| Inhalative toxicity [mg/l] | Test criterion | Duration of dosage | Test species |
|----------------------------|----------------|--------------------|--------------|
| > 3,3                      | LC50           | 1 h                | rat          |

#### dimethyl ether

| Inhalative toxicity [mg/l] | Test criterion | Duration of dosage | Test species |
|----------------------------|----------------|--------------------|--------------|
| 309                        | LC50           | 4 h                | rat          |

**Irritant effect on skin** Irritating to skin and mucous membranes

**Irritant effect on eyes** Irritating to eyes.

**Sensitization** May cause sensitization by inhalation and skin contact.

#### tris(2-chloro-1-methylethyl) phosphate

| Oral toxicity [mg/kg] | Test criterion | Test species |
|-----------------------|----------------|--------------|
| 2800                  | LD50           | rat          |

| Dermal toxicity [mg/kg] | Test criterion | Test species | Duration | Remarks  |
|-------------------------|----------------|--------------|----------|----------|
| > 2000                  | LD50           | rabbit       | 24 h     | OECD 402 |

| Inhalative toxicity [mg/l] | Test criterion | Test species | Note     | Exposure duration |
|----------------------------|----------------|--------------|----------|-------------------|
| > 5                        | LC50           | rat          | OECD 403 | 4 h               |

#### ethanediol, ethylene glycol

|                       |
|-----------------------|
| Oral toxicity [mg/kg] |
| Harmful if swallowed. |

|                            |                |              |              |                   |
|----------------------------|----------------|--------------|--------------|-------------------|
| Dermal toxicity [mg/kg]    | Test criterion | Test species |              |                   |
| > 3500                     | LD50           | rabbit       |              |                   |
| Inhalative toxicity [mg/l] | Test criterion | Test species | Note         | Exposure duration |
| > 2,5                      | LC50           | rat          | (as aerosol) | 6 h               |

### propane

|                            |                |              |                   |  |
|----------------------------|----------------|--------------|-------------------|--|
| Oral toxicity [mg/kg]      |                |              |                   |  |
| No data available          |                |              |                   |  |
| Dermal toxicity [mg/kg]    |                |              |                   |  |
| No data available          |                |              |                   |  |
| Inhalative toxicity [mg/l] | Test criterion | Test species | Exposure duration |  |
| 20                         | LC50           | rat          | 4 h               |  |

### dimethyl ether

|                            |                |              |                   |
|----------------------------|----------------|--------------|-------------------|
| Inhalative toxicity [mg/l] | Test criterion | Test species | Exposure duration |
| 308                        | LC50           | rat          | 4 h               |

### 2,2-bis(bromomethyl)propane-1,3-diol

|                            |                |              |                  |
|----------------------------|----------------|--------------|------------------|
| Oral toxicity [mg/kg]      | Test criterion | Test species | Remarks          |
| > 2000                     | LD50           | rat          | literature value |
| Dermal toxicity [mg/kg]    | Test criterion | Test species | Remarks          |
| > 5000                     | LD50           | rat          | literature value |
| Inhalative toxicity [mg/l] |                |              |                  |
| No data available          |                |              |                  |

### ISOBUTANE

|                            |                |              |                   |  |
|----------------------------|----------------|--------------|-------------------|--|
| Oral toxicity [mg/kg]      |                |              |                   |  |
| No data available          |                |              |                   |  |
| Dermal toxicity [mg/kg]    |                |              |                   |  |
| No data available          |                |              |                   |  |
| Inhalative toxicity [mg/l] | Test criterion | Test species | Exposure duration |  |
| > 50                       | LC50           | rat          | 4 h               |  |

## **SECTION 12: Ecological information**

### 12.1 Toxicity

#### Hazardous ingredients

#### 4,4'-methylenediphenyl diisocyanate, isomers and homologues

|                         |                |              |             |           |
|-------------------------|----------------|--------------|-------------|-----------|
| Toxicity to fish [mg/l] | Test criterion | Test species | Duration of | Measuring |
|-------------------------|----------------|--------------|-------------|-----------|



|                                   |                       |                                   |                          |                            |
|-----------------------------------|-----------------------|-----------------------------------|--------------------------|----------------------------|
|                                   |                       |                                   | <b>dosage</b>            | <b>method</b>              |
| > 100                             | LC50                  | Brachydanio rerio<br>(zebra fish) | 96 h                     | OECD Test<br>Guideline 203 |
| <b>Toxicity to daphnia [mg/l]</b> | <b>Test criterion</b> | <b>Test species</b>               | <b>Exposure duration</b> | <b>Measuring method</b>    |
| 9,9                               | EC50                  | Daphnia magna<br>(Water flea)     | 48 h                     | OECD Test<br>Guideline 202 |

### dimethyl ether

|                                |                       |                           |
|--------------------------------|-----------------------|---------------------------|
| <b>Toxicity to fish [mg/l]</b> | <b>Test criterion</b> | <b>Duration of dosage</b> |
| > 1000                         | LC50                  | 96 h                      |

|                                   |                       |                            |                          |
|-----------------------------------|-----------------------|----------------------------|--------------------------|
| <b>Toxicity to daphnia [mg/l]</b> | <b>Test criterion</b> | <b>Test species</b>        | <b>Exposure duration</b> |
| > 4400                            | LC50                  | Daphnia magna (Water flea) | 48 h                     |

## 12.6 Other adverse effects

**Further information on ecology** No information on ecology is available.




## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Disposal considerations** Disposal together with normal waste is not allowed. Special disposal required according to local regulations.  
The product should not be allowed to enter drains, water courses or the soil.  
Empty remaining contents.

**Uncleaned empty packaging** Dispose of as unused product.

## SECTION 14: Transport information

|                                 | <b>Land transport<br/>ADR/RID</b>  | <b>Marine transport<br/>IMDG</b>   | <b>Air transport<br/>ICAO/IATA</b>  |
|---------------------------------|--|--|---|
| <b>UN-No</b>                    | 1950   | 1950   | 1950  |
| <b>Class</b>                    | 2  | 2.1  | 2.1   |
| <b>Description of the goods</b> | AEROSOLS   | AEROSOLS   |   |
| <b>Proper shipping name</b>     |  | AEROSOLS   | Aerosols, flammable   |
| <b>Remarks</b>                  | inflammable  | (maximum 1 L)<br>flammable   |   |
| <b>Labels</b>                   | 2.1<br> | 2.1<br> | 2.1<br> |
| <b>Category</b>                 | 2  |  |   |
| <b>Classification Code</b>      | 5F   |  |   |
| <b>Tunnel restriction code</b>  | D  |  |   |
| <b>Environmental hazards</b>    | 0: Non marine pollutant  | 0: Non-marine pollutant  | 0: Non marine pollutant   |
| <b>EmS</b>                      |  | F-D;S-U  |   |
| <b>Stowage category</b>         |  | A  |   |

## **SECTION 15: Regulatory information**

**Additional regulations** HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

## **SECTION 16: Other information**

**Relevant H-phrases**

- H220: Extremely flammable gas.
- H222: Extremely flammable aerosol.
- H229: Pressurised container: May burst if heated.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335: May cause respiratory irritation.
- H351: Suspected of causing cancer .
- H362: May cause harm to breast-fed children.
- H373: May cause damage to organs through prolonged or repeated exposure .
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H413: May cause long lasting harmful effects to aquatic life.

**Wording of the hazard classes**

- Flam. Aerosol: Flammable aerosol
- Acute Tox.: Acute toxicity
- Skin Irrit.: Skin irritation
- Eye Irrit.: Serious eye irritation
- Resp. Sens.: Respiratory sensitization
- Skin Sens.: Skin sensitization
- Carc.: Carcinogenicity
- STOT SE: Specific target organ toxicity - single exposure
- STOT RE: Specific target organ toxicity - repeated exposure
- Aquatic Chronic: Hazardous to the aquatic environment
- Aquatic Acute: Hazardous to the aquatic environment
- Flam. Gas: Flammable gas
- Press. Gas: Gases under pressure

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.