



SAFETY DATA SHEET

Fosroc Polyurea WCS Gun Grade Part A

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

1.1. Product identifier

Product name Fosroc Polyurea WCS Gun Grade Part A

Product number A1534025UK9

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

Identified uses Base component of two-part protective coating.

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 3 - H412

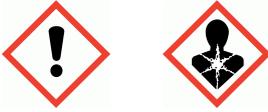
Human health Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. May cause drowsiness or dizziness.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Fosroc Polyurea WCS Gun Grade Part A

Hazard pictograms



Signal word

Danger

Hazard statements

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 if inhaled.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe vapour/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P284 [In case of inadequate ventilation] wear respiratory protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 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/doctor if you feel unwell.

Supplemental label information

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

Polymer, Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate, Polyoxy(methyl-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1-methylenebisocyanatobenzene

Supplementary precautionary statements

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing vapour/ spray.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P308+P313 IF exposed or concerned: Get medical advice/ attention.
 P314 Get medical advice/ attention if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P332+P313 If skin irritation occurs: Get medical advice/ attention.
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Fosroc Polyurea WCS Gun Grade Part A

| | |
|--|--|
| DIPROPYLENE GLYCOL DIBENZOATE | 20 - 30 |
| CAS number: 27138-31-4 | EC number: 248-258-5 |
| Classification Aquatic Chronic 3 - H412 | |
| Polymer | 20 - 50 |
| CAS number: 39420-98-9 | |
| Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373 | |
| Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate | 20 - 50 |
| CAS number: — | EC number: 905-806-4 |
| | REACH registration number: 01-2119457015-45-XXXX |
| Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373 | |
| Polyoxy(methyl-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1-methylenebisisocyanatobenzene | 20 - 50 |
| CAS number: 39420-98-9 | |
| Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373 | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Fosroc Polyurea WCS Gun Grade Part A

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|----------------------------|---|
| General information | Immediately remove any clothing soiled by the product. |
| Inhalation | Move affected person to fresh air at once. Get medical attention immediately. |
| Ingestion | Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. |
| Skin contact | Remove affected person from source of contamination. In the event of contact with the skin, wash immediately with polyethylene glycol, then with plenty of water. Get medical attention if irritation persists after washing. |
| Eye contact | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention. |

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

| | |
|----------------------------|--|
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | Irritation of nose, throat and airway. May cause sensitisation by inhalation. |
| Ingestion | Harmful if swallowed. |
| Skin contact | May cause sensitisation by skin contact. Symptoms following overexposure may include the following: Redness. Dryness and/or cracking. |
| Eye contact | Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. May cause blurred vision and serious eye damage. |

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

| | |
|-----------------------------|--|
| Notes for the doctor | Treat symptomatically. Keep under medical supervision for at least 48 hours. |
|-----------------------------|--|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | Extinguish with foam, carbon dioxide or dry powder. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

5.2. Special hazards arising from the substance or mixture

| | |
|--------------------------------------|---|
| Specific hazards | Closed containers can burst violently when heated, due to excess pressure build-up. No unusual fire or explosion hazards noted. |
| Hazardous combustion products | Heating may generate the following products: Carbon monoxide (CO). Oxides of nitrogen. Isocyanates. Hydrogen cyanide (HCN). |

5.3. Advice for firefighters

| | |
|--|--|
| Protective actions during firefighting | Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. |
| Special protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Fosroc Polyurea WCS Gun Grade Part A

Personal precautions Ensure suitable respiratory protection is worn during removal of spillages in confined areas. Provide adequate ventilation. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO₂!). Keep damp in a safe ventilated area for several days. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Spill area can be decontaminated with 10% sodium carbonate, 2% detergent solution in water.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate general and local exhaust ventilation. Avoid inhalation of vapours and spray/mists. Avoid contact with skin, eyes and clothing. Observe any occupational exposure limits for the product or ingredients. Avoid spilling. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from the following materials: Acids. Alkalis. Amines. Water

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate

Long-term exposure limit (8-hour TWA): 0.02 mg/m³

as -NCO

Sen

Short-term exposure limit (15-minute): 0.07 mg/m³

Polyoxy(methyl-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1-methylenebisocyanatobenzene

Long-term exposure limit (8-hour TWA): 0.02 mg/m³

as -NCO

Sen

Short-term exposure limit (15-minute): 0.07 mg/m³

Sen = Capable of causing occupational asthma.

DIPROPYLENE GLYCOL DIBENZOATE (CAS: 27138-31-4)

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| | |
|-------------|--|
| DNEL | Workers - Inhalation; Long term systemic effects: 5.8 mg/m ³ Workers - Inhalation; Short term systemic effects: 38.08 mg/m ³ Workers - Dermal; Long term systemic effects: 1.7 mg/kg/day Workers - Dermal; Short term systemic effects: 160 mg/kg/day |
| PNEC | - Fresh water; 2.9 µg/l - marine water; 0.29 µg/l - Sediment (Freshwater); 0.474 mg/kg - Sediment (Marinewater); 0.0474 mg/kg - Soil; 1 mg/kg - STP; 10 mg/l |

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate

| | |
|-------------|---|
| DNEL | Industrial - Inhalative; Acute systemic effects: 0.1 mg/m ³ Industrial - Inhalative; Long term local effects: 0.05 mg/m ³ Industrial - Dermal; Acute systemic effects: 50 mg/kg bw/day Industrial - Inhalative; Long term systemic effects: 0.05 mg/m ³ Industrial - Inhalative; Acute local effects: 0.1 mg/m ³ Industrial - Dermal; Acute local effects: 28.7 mg/cm ² General population - Dermal; Acute local effects: 17.2 mg/cm ² General population - Inhalative; Acute systemic effects: 0.05 mg/m ³ General population - Inhalative; Acute local effects: 0.05 mg/m ³ General population - Inhalative; Long term systemic effects: 0.025 mg/m ³ |
| PNEC | - STP; 1 mg/l - Soil; 1 mg/kg - marine water; 0.1 mg/l - Fresh water; 1 mg/l |

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 8 hours. Butyl rubber. Chloroprene rubber. Nitrile rubber. Viton rubber (fluoro rubber). Protective gloves should have a minimum thickness of 0.4 mm.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Provide eyewash station and safety shower.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

SECTION 9: Physical and chemical properties

Fosroc Polyurea WCS Gun Grade Part A

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Appearance | Liquid. |
| Colour | Yellowish. |
| Odour | Musty (mouldy). |
| Odour threshold | Not determined. |
| pH | Not applicable. |
| Melting point | Not determined. |
| Initial boiling point and range | Not determined. |
| Flash point | Not determined. |
| Evaporation rate | Not determined. |
| Evaporation factor | Not determined. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | Not determined. |
| Other flammability | Not determined. |
| Vapour pressure | Not determined. |
| Vapour density | Not determined. |
| Relative density | 1.10 - 1.14 @ at 20°C |
| Bulk density | Not applicable. |
| Solubility(ies) | Immiscible with water. |
| Partition coefficient | Not determined. |
| Auto-ignition temperature | Not determined. |
| Decomposition Temperature | Not determined. |
| Viscosity | 600 - 1300 mPa s @ at 25°C |
| Explosive properties | Not determined. |
| Oxidising properties | Does not meet the criteria for classification as oxidising. |

9.2. Other information

| | |
|--------------------------|-------|
| Other information | None. |
|--------------------------|-------|

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|-------------------|--|
| Reactivity | The following materials may react with the product: Water, forming CO ₂ ; in closed containers, risk of bursting owing to pressure increase. The reactivity data for this product will be typical of those for the following class of materials: Isocyanates. |
|-------------------|--|

10.2. Chemical stability

| | |
|------------------|--|
| Stability | Stable at normal ambient temperatures. |
|------------------|--|

10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions The following materials may react with the product: Reacts with water, with formation of carbon dioxide. Amines. Alcohols, glycols. Strong oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Water, moisture.

10.5. Incompatible materials

Materials to avoid Reacts with water/moisture causing material to solidify and releasing carbon dioxide. Strong oxidising agents. Amines. Alcohols, glycols.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrous gases (NO_x). Hydrogen cyanide (HCN). Isocyanates.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (gases ppm) 18,000.0

ATE inhalation (vapours mg/l) 14.67

ATE inhalation (dusts/mists mg/l) 6.0

Carcinogenicity

Carcinogenicity Limited evidence of a carcinogenic effect.

General information

The following applies to cyanogen compounds/ nitriles in general: utmost caution! Release of hydrocyanic acid is possible- blockage of cellular respiration. Cardiovascular disorders, dyspnoea, unconsciousness. Toxicological data of complete product are not available. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials. The product was classified on the basis of the calculation procedure of the preparation directive.

Inhalation Harmful by inhalation. May cause respiratory system irritation. May cause sensitisation by inhalation.

Ingestion Harmful if swallowed.

Skin contact Harmful in contact with skin. Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Target organs Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 5072 mg/kg, Oral, Rat

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >10000 mg/kg, Oral, Rat

Acute toxicity - dermal

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Notes (dermal LD₅₀) LD₅₀ >9400 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 0.49 mg/l/4hr, Inhalative, (Mist), Rat

ATE inhalation (vapours mg/l) 11.0

Polyoxy(methyl-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-, polymer with 1,1-methylenebisocyanatobenzene

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >10000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >9400 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 0.49 mg/l/4hr, Inhalative, Rat

ATE inhalation (vapours mg/l) 11.0

SECTION 12: Ecological information

Ecotoxicity The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 3.7 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 19.3 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 15 mg/l, Algae

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Fish (OECD 203)

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna (OECD 202)
NOEC, 21 days: >10 mg/l, Daphnia magna (OECD 211)

Acute toxicity - microorganisms EC₅₀, 3 hours: >100 mg/l, Bacteria (OECD 209)

12.2. Persistence and degradability

Persistence and degradability No data available.

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Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Biodegradation Water - Degradation 87%: 28 days

Biological oxygen demand 650 mg/g

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Partition coefficient log Pow: 3.9

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Note that fully cured material is not considered as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

ADR/RID class 9

14.4. Packing group

Not applicable.

Fosroc Polyurea WCS Gun Grade Part A

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

| | |
|-----------------------------|--|
| National regulations | Control of Substances Hazardous to Health Regulations 2002 (as amended). |
| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. |
| Guidance | Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. Introduction to Local Exhaust Ventilation HS(G)37. Respiratory protective equipment at work (HSG53). |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

| | |
|---|---|
| Abbreviations and acronyms used in the safety data sheet | ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DMEL: Derived Minimal Effect Level. DNEL: Derived No Effect Level. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. TWA: Time Weighted Average |
| General information | Only trained personnel should use this material. For professional users only. |
| Revision comments | NOTE: Lines within the margin indicate significant changes from the previous revision. |
| Revision date | 04/11/2020 |
| Revision | 2a |
| Supersedes date | 29/10/2015 |
| SDS number | 12562 |

Fosroc Polyurea WCS Gun Grade Part A

Hazard statements in full

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.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET

FOSROC POLYUREA WCS GUN GRADE Part B

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

1.1. Product identifier

Product name FOSROC POLYUREA WCS GUN GRADE Part B

Product number B1534025UK9

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

Identified uses Hardener component of two-part protective coating.

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc International Limited
 Drayton Manor Business Park
 Coleshill Road
 Tamworth
 Staffordshire
 B78 3XN
 England
 Tel: +44 (0) 1827 262222
 Fax: +44 (0) 1827 262444
 enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Corr. 1 - H314 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

FOSROC POLYUREA WCS GUN GRADE Part B

| | |
|---|---|
| Precautionary statements | <p>P260 Do not breathe vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p> |
| Contains | <p>6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE, 4,4'-METHYLENEBIS(CYCLOHEXYLAMINE)</p> |
| Supplementary precautionary statements | <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> |

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|--|------------------------|
| DIPROPYLENE GLYCOL DIBENZOATE | 10-30% |
| CAS number: 27138-31-4 | EC number: 248-258-5 |
| Classification | |
| Aquatic Chronic 3 - H412 | |
| 6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE | 10-30% |
| CAS number: 106264-79-3 | EC number: 403-240-8 |
| M factor (Acute) = 1 | M factor (Chronic) = 1 |
| Classification | |
| Acute Tox. 4 - H302 | |
| Skin Sens. 1 - H317 | |
| Aquatic Acute 1 - H400 | |
| Aquatic Chronic 1 - H410 | |

FOSROC POLYUREA WCS GUN GRADE Part B

| | | | |
|--|----------------------|---|-------------|
| 4,4'-METHYLENEBISCYCLOHEXYLAMINE | | | 1-5% |
| CAS number: 1761-71-3 | EC number: 217-168-8 | REACH registration number: 01-2119541673-38 | |
| Classification Acute Tox. 4 - H302 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT RE 2 - H373 | | | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|----------------------------|---|
| General information | Immediately remove any clothing soiled by the product. |
| Inhalation | Get medical attention. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. |
| Ingestion | Do not induce vomiting. Remove affected person from source of contamination. Rinse mouth thoroughly with water. Get medical attention immediately. |
| Skin contact | Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds. Remove contamination with soap and water or recognised skin cleansing agent. |
| Eye contact | Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention. |

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

| | |
|----------------------------|---|
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | May cause damage to mucous membranes in nose, throat, lungs and bronchial system. |
| Ingestion | May cause chemical burns in mouth and throat. May cause chemical burns in mouth and throat. |
| Skin contact | Chemical burns. Untreated burns can result in slow-healing wounds. |
| Eye contact | Corneal damage. |

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

| | |
|-----------------------------|------------------------|
| Notes for the doctor | Treat symptomatically. |
|-----------------------------|------------------------|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

5.2. Special hazards arising from the substance or mixture

| | |
|-------------------------|--|
| Specific hazards | Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x). |
|-------------------------|--|

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5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Take care as floors and other surfaces may become slippery.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Avoid or minimise the creation of any environmental contamination. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store out of direct sunlight.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

DIPROPYLENE GLYCOL DIBENZOATE (CAS: 27138-31-4)

DNEL

Workers - Inhalation; Long term systemic effects: 5.8 mg/m³
 Workers - Inhalation; Short term systemic effects: 38.08 mg/m³
 Workers - Dermal; Long term systemic effects: 1.7 mg/kg/day
 Workers - Dermal; Short term systemic effects: 160 mg/kg/day

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| | |
|-------------|--|
| PNEC | - Fresh water; 2.9 µg/l |
| | - marine water; 0.29 µg/l |
| | - Sediment (Freshwater); 0.474 mg/kg |
| | - Sediment (Marinewater); 0.0474 mg/kg |
| | - Soil; 1 mg/kg |
| | - STP; 10 mg/l |

4,4'-METHYLENEBISCYCLOHEXYLAMINE (CAS: 1761-71-3)

| | |
|-------------|--|
| DNEL | Industry - Dermal; Long term systemic effects: 0.1 mg/kg/day |
| | Industry - Inhalation; Long term systemic effects: 1 mg/m ³ |
| PNEC | Fresh water; 0,08 mg/l |
| | Sediment (Freshwater); 137 mg/kg/day |
| | marine water; 0,008 mg/l |
| | Sediment (Marinewater); 13,7 mg/kg |
| | Soil; 3,2 mg/l |
| | Soil; 27,2 mg/kg |
| | Intermittent release; 0,08 mg/l |

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

The following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

It is recommended that gloves are made of the following material: Neoprene. Nitrile rubber. The selected gloves should have a breakthrough time of at least 8 hours. Use barrier creams to minimise skin contact. Protective gloves should have a minimum thickness of 0.4 mm. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

Provide eyewash station and safety shower.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|------------------------|------------------|
| Appearance | Liquid. |
| Colour | Various colours. |
| Odour | Amine. |
| Odour threshold | Not determined. |
| pH | Not applicable. |
| Melting point | Not determined. |

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| | |
|---|---|
| Initial boiling point and range | Not determined. |
| Flash point | Not determined. |
| Evaporation rate | Not determined. |
| Evaporation factor | Not determined. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | Not determined. |
| Vapour pressure | Not determined. |
| Vapour density | Not determined. |
| Relative density | 1.05 - 1.09 @ 20°C |
| Bulk density | Not applicable. |
| Solubility(ies) | Immiscible with water. |
| Partition coefficient | Not determined. |
| Auto-ignition temperature | Not determined. |
| Decomposition Temperature | Not determined. |
| Viscosity | 900 - 1300 mPa s @ 25°C |
| Explosive properties | Not considered to be explosive. |
| Explosive under the influence of a flame | Not considered to be explosive. |
| Oxidising properties | Does not meet the criteria for classification as oxidising. |

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable at normal ambient temperatures and when used as recommended.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Acids. Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Oxidising materials. Acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrous gases (NO_x).

FOSROC POLYUREA WCS GUN GRADE Part B

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 4,629.63

General information May cause respiratory system irritation.

Inhalation Harmful by inhalation. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact Causes burns. Harmful in contact with skin.

Eye contact Causes burns.

Target organs Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 5072 mg/kg, Oral, Rat

6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 1515 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rabbit

4,4'-METHYLENEBIS(CYCLOHEXYLAMINE)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 625 mg/kg, Oral, Rat

ATE oral (mg/kg) 625.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 2110 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 2,110.0

SECTION 12: Ecological information

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity May cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

Acute aquatic toxicity

FOSROC POLYUREA WCS GUN GRADE Part B

| | |
|---|--|
| Acute toxicity - fish | LC ₅₀ , 96 hours: 3.7 mg/l, Pimephales promelas (Fat-head Minnow) |
| Acute toxicity - aquatic invertebrates | EC ₅₀ , 48 hours: 19.3 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants | IC ₅₀ , 72 hours: 15 mg/l, Algae |

6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE

Acute aquatic toxicity

| | |
|---|--|
| LE(C)₅₀ | 0.1 < L(E)C ₅₀ ≤ 1 |
| M factor (Acute) | 1 |
| Acute toxicity - fish | LC ₅₀ , 96 hours: 7,3 mg/l, Oncorhynchus mykiss (Rainbow trout) |
| Acute toxicity - aquatic invertebrates | EC ₅₀ , 48 hours: 0,9 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants | EC ₅₀ , 72 hours: 7,6 mg/l, Selenastrum capricornutum |

Chronic aquatic toxicity

| | |
|---------------------------|---|
| M factor (Chronic) | 1 |
|---------------------------|---|

4,4'-METHYLENEBISCYCLOHEXYLAMINE

Acute aquatic toxicity

| | |
|---|---|
| Acute toxicity - fish | LC ₅₀ , 96 hours: > 100 mg/l, Leuciscus idus (Golden orfe) LC ₀ , 96 hours: 46 mg/l, |
| Acute toxicity - aquatic invertebrates | EC ₅₀ , 48 hours: 6.84 mg/l, Daphnia magna NOEC, 504 hours: 4 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants | EC ₅₀ , 72 hours: 140 - 200 mg/l, Algae |

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

| | |
|---------------------------------|----------------------------------|
| Biodegradation | Water - Degradation 87%: 28 days |
| Biological oxygen demand | 650 mg/g |

12.3. Bioaccumulative potential

| | |
|----------------------------------|---------------------------------------|
| Bioaccumulative potential | No data available on bioaccumulation. |
| Partition coefficient | Not determined. |

Ecological information on ingredients.

DIPROPYLENE GLYCOL DIBENZOATE

| | |
|------------------------------|--------------|
| Partition coefficient | log Pow: 3.9 |
|------------------------------|--------------|

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6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE

Bioaccumulative potential BCF: 9.8 - 25,

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (ADN) 2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-METHYLENEBIS(CYCLOHEXANAMINE))

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-METHYLENEBIS(CYCLOHEXANAMINE), 6-METHYL-2,4-BIS(METHYLTHIO)PHENYLENE-1,3-DIAMINE))

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-METHYLENEBIS(CYCLOHEXANAMINE))

Proper shipping name (ADN) AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-METHYLENEBIS(CYCLOHEXANAMINE))

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C7

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

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Transport labels



14.4. Packing group

| | |
|-----------------------|----|
| ADR/RID packing group | II |
| IMDG packing group | II |
| ICAO packing group | II |
| ADN packing group | II |

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

| | |
|--|-------------|
| IMDG Code segregation group | 18. Alkalis |
| EmS | F-A, S-B |
| ADR transport category | 2 |
| Emergency Action Code | 2X |
| Hazard Identification Number (ADR/RID) | 80 |
| Tunnel restriction code | (E) |

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

| | |
|-----------------------------|--|
| National regulations | Control of Substances Hazardous to Health Regulations 2002 (as amended). |
| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. |
| Guidance | Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. Respiratory protective equipment at work (HSG53). |

15.2. Chemical safety assessment

FOSROC POLYUREA WCS GUN GRADE Part B

No chemical safety assessment has been carried out.

SECTION 16: Other information

| | |
|---|--|
| Abbreviations and acronyms used in the safety data sheet | ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DMEL: Derived Minimal Effect Level. DNEL: Derived No Effect Level. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. TWA: Time Weighted Average vPvB: Very Persistent and Very Bioaccumulative. |
| General information | Only trained personnel should use this material. For professional users only. |
| Revision comments | NOTE: Lines within the margin indicate significant changes from the previous revision. |
| Revision date | 04/11/2020 |
| Revision | 3a |
| Supersedes date | 09/02/2018 |
| SDS number | 12563 |
| Hazard statements in full | H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. 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. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. |

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.