

**Fortify XD**

**Section 1: Identification of the substance/preparation and of the company/undertaking**

**1.1 Product identifier**

Product Name: **Fortify XD**  
Supplier: Engage Agro Europe Ltd  
Chorley Business & Technology Centre  
Euxton Lane,  
Euxton, Chorley  
Lancashire PR7 6TE  
England  
Telephone: +44 (0) 1257 226590



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

Product use: Fertiliser. For professional use only.  
Uses advised against: All uses not specified in this section or in section 7.3.

**1.3 Emergency telephone**

Emergency Telephone	Type of Assistance	Opening Hours
0845 4647	England and Wales: NHS Direct – Health advice and assistance	24 Hours
08454 242424	Scotland: NHS24	24 Hours

**Section 2: Hazards identification**

**2.1 Classification of the Substance and Mixture**

CLP Regulation (EC) n°1272/2008: Classification of this product has been carried out in accordance with CLP Regulation (EC) N° 1272/2008.  
Acute Tox. 4: H302  
Skin Corr. 1A: H314  
Aquatic Chronic 1: H410

**2.2 Label elements**

Hazard Statements: Acute Tox. 4: H302 - Harmful if swallowed  
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage  
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

**Hazard Pictograms:**



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<b>Signal Words:</b>	Danger
<b>Precautionary Statement:</b>	P260 - Do not breathe dust/fume/gas/mist/vapours/spray
<b>Prevention</b>	P264 - Wash hands and other contacted skin thoroughly
	P280 - Wear Protective gloves/protective clothing/eye protection/face protection
<b>Precautionary Statement:</b>	P301+P312 - IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell
<b>Response</b>	P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
	P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
	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.
	P330 - Rinse Mouth
	P363 - Wash contaminated clothing before reuse
	P391 - Collect spillage
<b>Precautionary Statement:</b>	P405 - Store locked up
<b>Storage</b>	
<b>Precautionary Statement:</b>	
<b>Disposal</b>	P501 - Dispose of contents/container to an approved waste contractor.

**2.3 Other Hazards**

**Other Hazards** PBT not identified as a PBT substance

**Section 3: Composition/information on ingredients**

**3.1 Mixtures**

In accordance with Annex II of Regulation (EC) n°1907/2006

Identification	Chemical name/Classification	Concentration
CAS: 5949-29-1 EC: 201-069-1 Index: Non-applicable REACH: 01-2119457026-42	<b>Citric Acid Monohydrate</b> Regulation 1272/2008 Eye Irrit. 2: H319	20-30%
	Regulation 67/548/EEC / 1999/45/EC Xi; R36	
CAS: 7446-20-0 EC: 231-793-3 Index: Non-applicable REACH: 01-2119474684-27	<b>Zinc Sulphate Heptahydrate</b> Regulation 1272/2008 Acute Tox. 4: H302, Eye Dam. 1: H318, Aquatic Chronic 1: H410	10-20%
	Regulation 67/548/EEC / 1999/45/EC Xn; R22 Xi; R41 N; R50/53	
CAS: 7758-99-8 EC: 231-847-6 Index: Non-applicable REACH: 01-2119520566-40	<b>Copper Sulphate Pentahydrate</b> Regulation 1272/2008 Acute Tox. 4: H302, Skin Irrit. 2: H315, Eye Irrit. 2: H319, Aquatic Acute 1: H400, Aquatic Chronic 1: H410	1-10%
	Regulation 67/548/EEC / 1999/45/EC Xn; R22 Xi; R36/38 N; R50/53	
CAS: Non-Applicable EC: Non-applicable Index: Non-applicable REACH: Non-applicable	<b>Cocamidopropyl Betain</b> Regulation 1272/2008 Eye Dam. 1: H318, Aquatic Chronic 1: H412	1-10%
	Regulation 67/548/EEC / 1999/45/EC Xi; R41 R52/53	
CAS: 67674-67-3 EC: 614-100-2 Index: Non-applicable REACH: Non-applicable	<b>Poly(oxy-1,2-ethanediyl), a[3-[1,3,3,3-tetramethyl-1[(trimethylsilyl)oxy]disiloxanyl]propyl]-w-hydroxy</b> Regulation 1272/2008 Eye Irrit. 2: H319, Acute Tox. 4: H332, Aquatic Chronic 3: H412	0.5-1%
	Regulation 67/548/EEC / 1999/45/EC	

Further Information: Recommended shelf life 3 years from date of delivery.  
Product Shelf Life

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**Section 4: First aid measures**

**4.1 Description of first aid measures**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention.

- By inhalation:** Move the exposed person to fresh air.  
**By skin contact:** Remove contaminated clothing. Wash with water and soap as a precaution.  
**By eye contact:** Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Contact lenses should be removed.  
**By Ingestion:** DO NOT INDUCE VOMITING. Rinse mouth thoroughly. Drink plenty of water to dilute ingested product.

**4.2 Most important symptoms and effects, both acute and delayed:**

- By Inhalation:** Causes burns  
**By Skin Contact:** Causes burns  
**By Eye contact:** Causes burns. Risk of serious damage to eyes.  
**By Ingestion:** Causes burns

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

TREAT SYMPTOMATICALLY. If you feel unwell, seek medical advice. Show the label where possible. Show this safety data sheet to the doctor in attendance.

- By inhalation:** Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist. Show this safety data sheet to the doctor in attendance.  
**By Skin Contact:** Remove contaminated clothing immediately. Rinse immediately with plenty of water. Seek medical attention if irritation or symptoms persist. Show this safety data sheet to the doctor in attendance.  
**By Eye Contact:** Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Contact lenses should be removed. Rinse immediately with plenty of water. Seek medical attention. Show this safety data sheet to the doctor in attendance.  
**By Ingestion:** Drink 1-2 glasses of water. Seek medical attention. Show this safety data sheet to the doctor in attendance.

**Section 5: Fire-fighting measures**

**5.1 Extinguishing media**

**Extinguishing media:** This product is not flammable. Use fire extinguishing media appropriate for surrounding materials.

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

**Exposure hazards:** Burning produces irritating, toxic and obnoxious fumes.

**5.3 Advice for firefighters**

- Advice for fire-fighters:** Wear suitable respiratory equipment when necessary.  
**Additional provisions:** In the event of a fire and/or explosion do not breath fumes. Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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**Section 6: Accidental release measures**

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

**Personal precautions:** Wear suitable protective equipment.

**6.2 Environmental precautions**

**Environmental precautions:** Advise local authorities if large spills cannot be contained.

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

**Clean-up procedures:** For large spills: Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water. For small spills: flush down drain with plenty of water.

**6.4 Reference to other sections**

**Reference to other sections:** See section 2, 7, 8 and 13 for further information.

**Section 7: Handling and storage**

**7.1 Precautions for safe handling**

**Precautions for safe handling:** Avoid contact with eyes and skin. Do not breathe vapours or spray mist. Adopt best manual handling considerations when handling, carrying and dispensing.

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

**General conditions for storage:** Store in a cool, dry area. Keep container tightly closed. Keep out of the reach of children. Store in original container.

**7.3 Specific end use(s)**

**Specific end use(s):** No data is available for this product.

**Section 8: Exposure controls/personal protection**

**8.1 Control Parameters**

Substances whose occupational exposure limits have to be monitored in the work environment.

**DNEL (Workers):**

Zinc Sulphate Heptahydrate	Long-term - inhalation - Systemic effects	1 mg/m <sup>3</sup>
Zinc Sulphate Heptahydrate	Long-term - dermal - Systemic effects	8.3 mg/kg

**DNEL (General population):**

Zinc Sulphate Heptahydrate	Long-term - inhalation - Systemic effects	1.3 mg/m <sup>3</sup>
Zinc Sulphate Heptahydrate	Long-term - dermal - Systemic effects	8.3 mg/kg
Zinc Sulphate Heptahydrate	Long-term - oral - Systemic effects	0.38 mg/kg

**PNEC:** Non applicable

## 8.2 Exposure controls



### A - General security and hygiene measures in the work place

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Use appropriate personal protective equipment. Wear suitable protective clothing and eye/face protection.

### B - Specific Respiratory Protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.

### C - Specific protection for the hands

Wear Rubber gloves.

### D - Ocular and facial protection

Avoid contact with eyes. If splashes are likely to occur wear safety glasses with side shields.

### E - Bodily protection

Wear suitable protective clothing.

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

### Volatile organic compounds

Non-applicable

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**Section 9: Physical and chemical properties**

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

Appearance:	Liquid
Colour:	Blue
Odour:	Odourless
Relative density:	1.27-1.3 g/cm <sup>3</sup>
Partition coefficient:	No data available
Autoignition temperature:	No data available
Melting point:	No data available
Initial boiling point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas)	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Odour threshold:	No data available
Viscosity:	< 50 centipoise
pH:	≈ 1
Solubility:	Soluble in water

**9.2 Other Information**

Conductivity:	No data available
Surface tension:	No data available
Gas group:	No data available
Benzene content:	No data available
Lead content:	No data available
VOC (Volatile organic compounds)	No data available

**Section 10: Stability and reactivity**

**10.1 Reactivity**

**Reactivity:** Stable under normal conditions. No specific reactivity hazards associated with this product.

**10.2 Chemical stability**

**Chemical stability:** Stable under normal conditions. No particular stability concerns.

**10.3 Possibility of hazardous reactions**

**Hazardous reactions:** Strong acids. Strong oxidising agents.

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**10.4 Conditions to avoid**

**Conditions to avoid:** Protect from frost

**10.5 Incompatible materials**

**Incompatible materials:** No incompatible groups noted.

**10.6 Hazardous decomposition products**

**Haz. Decomposition Products:** No hazardous decomposition products when stored and handled correctly. Burning produces irritating, toxic and obnoxious fumes.

**Section 11: Toxicological information**

**11.1 Information on toxicological effects**

**Respiratory or skin sensitisation:** Not anticipated under normal conditions of use. Causes burns.  
**Repeated or prolonged exposure:** Causes burns. Prolonged contact may cause defatting of the skin. Danger of serious damage to health by prolonged exposure.

**11.2 Specific toxicology information on the substances**

No data available

**Section 12: Ecological information**

**12.1 Toxicity**

No data available

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**12.2 Persistence and degradability**

Substance biodegrades at a moderate rate and inherently biodegradable according to the OECD guidelines.

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

No data available

**12.6 Other adverse effects**

None described

**Section 13: Disposal considerations**

**13.1 Waste treatment methods**

**Waste treatment methods:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal of packaging:** Do not reuse empty containers. Dispose of empty container in compliance with local and national regulations.



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**Section 14: Transport information**



Transport of dangerous goods by land With regard to ADR 2015 and RID 2015:	Transport of dangerous goods by sea With regard to IMDG 37-14
<b>14.1 - UN number:</b> UN1760	<b>14.1 - UN number:</b> UN1760
<b>14.2 - UN proper shipping name:</b> CORROSIVE LIQUID, N.O.S. (contains zinc sulphate and copper sulphate)	<b>14.2 - UN proper shipping name:</b> CORROSIVE LIQUID, N.O.S. (contains zinc sulphate and copper sulphate)
<b>14.3 - Transport hazard class(es):</b> ADR/RID:8 Labels: 8	<b>14.3 - Transport hazard class(es):</b> IMDG: 8 Labels: Non-applicable
<b>14.4 - Packing group</b> III	<b>14.4 - Packing group</b> III
<b>14.5 - Dangerous for the env.:</b> Yes	<b>14.5 - Dangerous for the env.:</b> Yes
<b>14.6 - Special precautions for user</b> Special regulations: Hazard ID 80 Tunnel restriction code: Category E Physico-Chemical properties: See section 9 Limited Quantities: Non-applicable	<b>14.6 - Special precautions for user:</b> Special regulations: Non-applicable EmS codes: F-A-S-B Physico-chemical properties: See section 9 Limited quantities: Non-applicable
<b>14.7 - Transport in bulk according to Annex II of Marpol and IBC Code:</b> Non-applicable	<b>14.7 - Transport in bulk according to Annex II of Marpol and IBC code:</b> Non-applicable

**Transport of dangerous goods by air**  
With regard to IATA/ICAO 2015:

<b>14.1 - UN number:</b> UN1760
<b>14.2 - UN proper shipping name:</b> CORROSIVE LIQUID, N.O.S. (contains zinc sulphate and copper sulphate)
<b>14.3 - Transport hazard class(es):</b> IATA 8 Labels: Non-applicable
<b>14.4 - Packing group</b> III
<b>14.5 - Dangerous for the environment:</b> No
<b>14.6 - Special precautions for user</b> Physico-Chemical properties: See section 9
<b>14.7 - Transport in bulk according to Annex II of Marpol and IBC Code:</b> Non-applicable Packing instruction (Cargo): 856 Maximum quantity: 60 L Packing instruction (Passenger) 852 Maximum quantity: 5 L

**Section 15: Regulatory information**

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

**Specific regulations:**

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH):**

Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product

**Other legislation:**

The product could be affected by sectorial legislation

Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers

**15.2 Chemical Safety Assessment**

**Chemical safety assessment:** No information available

**Section 16 Other information**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Annex II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

**Modifications related to the previous security card which concerns the ways of managing risks:**

Non-applicable

**Texts of the legislative phrases mentioned in section 2:**

H319 - Causes serious eye irritation

H302 - Harmful if swallowed

H318 - Causes serious eye damage

H410 - Very toxic to aquatic life with long lasting effects

H315 - Causes skin irritation

H400 - Very toxic to aquatic life

H412 - Harmful to aquatic life with long lasting effects

H332 - Harmful if inhaled

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**CLP Regulation (EC) n° 1272/2008:**

Eye Irrit. 2: H319 - Causes serious eye irritation

Acute Tox. 4: H302 - Harmful if swallowed

Eye Dam. 1: H318 - Causes serious eye damage

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

Skin Irrit. 2: H315 - Causes skin irritation

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects

Acute Tox. 4: Harmful if inhaled

**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.

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