

Fortify Cu

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

1.1 Product identifier

Product Name: **Fortify Cu**
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.
Aquatic Chronic 3: H412
Eye Irrit. 2: H319
Skin Irrit. 2: H315

2.2 Label elements

Hazard Statements: Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2:H315 - Causes skin irritation

Hazard Pictograms:



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Signal Words:	Warning
Precautionary Statement:	P264 - Wash thoroughly after use P273 - Avoid release to the environment P280 - Wear Protective gloves/protective clothing/eye protection/face protection
Precautionary Statement Response:	P302+P352 - IF ON SKIN: Wash with plenty of water P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention
Precautionary Statement Storage:	
Precautionary Statement Disposal:	P501 - Dispose of the contents/containers in accordance with the current legislation on waste treatment.

2.3 Other Hazards

Other Hazards Not applicable

Section 3: Composition/information on ingredients

3.1 Substances

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

Identification	Chemical name/Classification	Concentration
CAS: 13446-12-3 EC: 236-594-5 Index: Not applicable REACH: Not applicable	Monoammonium Phosphonate Regulation 1272/2008 Eye Irrit. 2:H319, Skin Irrit. 2:H315	10-<20%
CAS: 22132-71-4 EC: Not applicable Index: Not applicable REACH: Not applicable	Diammonium Phosphonate Regulation 1272/2008 Eye Irrit. 2:H319, Skin Irrit. 2:H315	10-<20%
CAS: Not applicable EC: 917-696-5 Index: Not applicable REACH: Not applicable	Copper Phosphonate Regulation 1272/2008 Acute Tox. 4: H302+H312, Aquatic Chronic 1: H410, Eye Dam. 1:H318, Skin Irrit. 2:H315	1-<3%

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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:** This product is not classified as hazardous through inhalation, however, it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.
- By skin contact:** Remove contaminated clothes and shoes, rinse the skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.
- By eye contact:** Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or lose their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of this product.
- By Ingestion:** Do not induce vomiting, but if it does happen, keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most Important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in Sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media: Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper use polyvalent powder extinguishers (ABC powder) in accordance with the regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture

Exposure hazards: As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters

- Advice for fire-fighters:** Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit....) in accordance with Directive 89/654/EC.
- Additional provision:** Act in accordance with the internal emergency plan and information sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into aqueous medium.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Isolate leaks provided that there is no additional risk for the people performing this task. Personal protective equipment must be used against potential contact with the spilt product (See Section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions

Environmental precautions: Avoid any type of spillage into an aqueous medium. Contain the product absorbed in hermetically sealed containers. In case of serious spillage into an aqueous medium notify the relevant authority.

6.3 Methods and material for containment and cleaning up

Clean-up procedures: It is recommended: Absorb the spillage using sand or inert absorbent material and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Any concern related to disposal consult Section 13.

6.4 Reference to other sections

Reference to other sections: For disposal see Section 13. For personal protective equipment see Section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

A - Precautions for safe manipulation: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (See section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B - Technical recommendations for the prevention of fires and explosions: Products is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C - Technical recommendations to prevent ergonomically and toxicological risks: Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D - Technical recommendations to prevent environmental risks: It is recommended to have absorbent material available at close proximity to the product (see section 6 Methods and Material for Containment and Cleaning up).

7.2 Conditions for safe storage, including any incompatibilities

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food. Store between 0 -40°C for a maximum of 24 months.

7.3 Specific end use(s)

Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

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Section 8: Exposure controls/personal protection

8.1 Control Parameters

Substances whose occupational exposure limits have to be monitored in the work environment. There are no exposure limits for the substances contained in this product.

DNEL (Workers): Non-applicable
DNEL (General population): Non-applicable
PNEC: Non-applicable


8.2 Exposure controls




A - General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic personal protective equipment, with the corresponding 'CE Marking in accordance with Directive 89/686/EC. For more information on personal protective equipment (storage, use, cleaning, maintenance, class of protection...) consult the information leaflets provided by the manufacturer. For more information see subsection 7.1


B - Specific Respiratory Protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Filter mask for particles	CE, Cat III	EN 149:2001+A1:2009	Replace when an increase in resistance to breathing is observed


C - Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Protective gloves against minor risks	CE, Cat I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend CE III in line with standards EN 420 and EN 374.

D - Ocular and facial protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
	Panoramic glasses against liquid splash	CE, Cat II	EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturers instructions. Us if there is a risk of splashing

E - Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing	CE, Cat I		For professional use only
	Anti-slip work shoes	CE, Cat II	EN ISO 20347:2012	

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F - Additional emergency measures

Emergency measure	Standards
	ANSI Z358-1 ISO 3864-1:2002
 Eyewash	DIN 12 899 ISO 3864-1:2002

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. Prevent further leakage or spillage if safe to do so

Volatile organic compounds

With regards to Directive 2010/75/EU, this product has the following characteristics:

V.O.C (Supply): 0% weight
 V.O.C. density at 20°C: 0 kg/m³ (0g/L)
 Average Carbon No.: Not applicable
 Average molecular Weight: Not applicable

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state at 20°C:	Liquid
Appearance:	Characteristic
Colour:	Blue
Odour:	Characteristic
Boiling point:	Not applicable*
Vapour pressure:	Not applicable*
Evaporation rate:	Not applicable*
Density at 20°C:	1.142-1.162 kg/m ³
Relative density at 20°C:	1.142-1.162
Dynamic viscosity at 20°C:	Not applicable*
Kinematic viscosity at 20°C:	Not applicable*
Kinematic viscosity at 40°C:	Not applicable*
Concentration:	Not applicable*
pH:	8.8=5 (ASTM D3838-05)
Vapour density at 20°C:	Not applicable*
Partition coefficient:	Not applicable*
Solubility in water at 20°C:	Not applicable*
Solubility property:	Miscible
Decomposition temperature:	Not applicable*
Melting/freezing point:	Not applicable*
Flash point:	Non-flammable (>60°C)
Autoignition temperature:	Not applicable*
Lower flammability limit:	Not applicable*
Upper flammability limit:	Not applicable*

9.2 Other Information

Surface tension at 20°C:	Not applicable*
Refraction index:	Not applicable*

*Not relevant due to the nature of the product, not providing information property of its hazards.

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Section 10: Stability and reactivity

10.1 Reactivity

Reactivity: No hazardous reactions are expected because the product is stable under recommended transport and storage conditions. See Section 7.

10.2 Chemical stability

Chemical stability: Stable under normal conditions of storage, handling and use.

10.3 Possibility of hazardous reactions

Hazardous reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected..

10.4 Conditions to avoid

Conditions to avoid: None known

10.5 Incompatible materials

Incompatible materials: Alkalis or strong bases

10.6 Hazardous decomposition products

Haz. Decomposition Products: See subsection 10.3 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released. Carbon dioxide, carbon monoxide and other organic compounds.

Section 11: Toxicological information

11.1 Information on toxicological effects

The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommend by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A - Ingestion:

Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see Section 3.

Corrosive/irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation:

Acute Toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see Section 3.

Corrosive/irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for this effect. For more information see Section 3.

C- Contact with the skin and eyes:

Contact with skin: Produces skin inflammation.

Contact with eyes: Produces eye damage after contact.

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D - CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction:

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see Section 3.

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see Section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see Section 3.

E - Sensitising effects:

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see Section 3.

Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see Section 3.

F - Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for this effect. For more information see Section 3.

G - Specific target organ toxicity (STOT)-repeated exposure:

Specific target organ toxicity (STOT) repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see Section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see Section 3.

H - Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see Section 3.

11.2 Specific toxicology information on the substances

Acute Toxicity Data:

Component	LD ₅₀ Oral (mg/kg)	LD ₅₀ Dermal (mg/kg)	LD ₅₀ Inhalation (mg/L, 4 hrs.)
Monoammonium Phosphonate	>2000	>2000	Not applicable
Copper phosphonate	>2000	>2000	Not applicable
Diammonium Phosphonate	>2000	>2000	Not applicable

Section 12: Ecological information

12.1 Toxicity

Identification	Acute toxicity		Species	Genus
Copper Phosphonate	LC50	0.1-1 mg/L (96h)		Fish
	EC50	0.1-1 mg/L		Crustacea
	EC50	0.1-1 mg/L		Algae

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

Section 13: Disposal considerations

13.1 Waste treatment methods

Code	Description	Waste class (Regulation (EU) No 1357/2014)
06 10 02	Waste containing hazardous substances	Dangerous

Type of Waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP4 Irritant - skin and eye damage

Waste Management (disposal and evaluation):

Consult the authorised waste service manager on the assessment and disposal operations in accordance with Annex I and Annex II (Directive 2008/98/EC). Under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed in the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

Section 14: Transport information

14.1 UN Number

This product is not classified as dangerous for carriage.

14.2 UN proper shipping name

The product is not classified as dangerous for carriage.

14.3 Transport hazard class(es)

This product is not classified as dangerous for carriage.

14.4 Packaging group

The products is not classified as dangerous for carriage.

14.5 Environmental hazards

The product is not classified as dangerous for carriage.

14.6 Special precautions for user

The product is not classified as dangerous for carriage.

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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

The product is not classified as dangerous for carriage.

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 with amendments.
COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending regulation (EC)No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
REGULATION (EC) No 1727/2008 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) of 16 December 2008 on classification, labelling and packaging of substances and mixture, amending and repealing Directives 6/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; with amendments
Regulation (EU) No 946/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on Persistent organic Pollutants and amending Directive 79/117/EC
European Agreement Concerning the Carriage of Dangerous Goods by Road (ADR), 2015

15.2 Chemical Safety Assessment

Chemical safety assessment: No data available

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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:

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H318 - Causes serious eye damage

H412 - Very toxic to aquatic life with long lasting effects

H302+H312 - Harmful if swallowed and in contact with skin

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:

Skin Irrit. 2: H315 - Causes skin irritation

Eye Irrit. 2: Causes serious eye irritation

Eye Dam. 1:H318 - Causes serious eye damage

Aquatic Chronic 1: H413 - Very toxic to aquatic life with long lasting effects

Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin

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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