

# SAFETY DATA SHEET

## COPMANG PLUS

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS # : NP-0077-1-A  
Revision date: 2019-09-25  
Format: EU  
Version 1.01

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) NP-0077-1-A  
Product Name COPMANG PLUS

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

Recommended Use: A fertilizer with micronutrients for use in agriculture and horticulture  
Restrictions on use Use as recommended by the label.

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

Manufacturer FMC Agro Limited  
Rectors Lane  
Pentre  
Flintshire  
CH5 2DH  
United Kingdom  
Tel: + 44 1244 537370  
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point Tel: +44(0) 1244 537370  
Email: fmc.agro.uk@fmc.com

#### 1.4. Emergency telephone number

Emergency telephone Medical emergencies:

Austria: +43 1 406 43 43  
Belgium: +32 70 245 245  
Bulgaria: +359 2 9154 409  
Cyprus: 1401  
Czech Republic: +420 224 919 293, +420 224 915 402  
Denmark: +45 82 12 12 12  
France: +33 (0) 1 45 42 59 59  
Finland: +358 9 471 977  
Greece: 30 210 77 93 777  
Hungary: +36 80 20 11 99  
Ireland (Republic): +352 1 809 2166  
Italy: +39 02 6610 1029  
Lithuania: +370 523 62052, +370 687 53378  
Luxembourg: +352 8002 5500  
Netherlands: +31 30 274 88 88  
Norway: +47 22 591300  
Poland: +48 22 619 66 54, +48 22 619 08 97  
Portugal: 800 250 250 (in Portugal only), +351 21 330 3284  
Romania: +40 21318 3606

Slovakia: +421 2 54 77 4 166  
Slovenia: +386 41 650 500  
Spain: +34 91 562 04 20  
Sweden: +46 08-331231112  
Switzerland: 145  
United Kingdom: 0870 600 6266 (in the UK only)  
U.S.A. & Canada: +1 800 / 331-3148  
All other countries: +1 651 / 632-6793 (Collect)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

Skin corrosion/irritation	Category 2 (H315)
Serious eye damage/eye irritation	Category 1 (H318)
Specific target organ toxicity — repeated exposure	Category 2 (H373)
Chronic aquatic toxicity	Category 2 (H411)

### 2.2. Label elements

#### Hazard pictograms



**Signal Word**  
Danger

#### Hazard Statements

H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects

#### Precautionary Statements

P260 - Do not breathe spray  
P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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  
P501: Dispose of contents/container as hazardous waste in accordance with local regulations.

### 2.3. Other hazards

This product is not identified as a PBT/vPvB substance.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

The product is a mixture, not a substance.

### 3.2 Mixture containing the following hazardous ingredients:

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
MANGANESE (II)	Present	7785-87-7	10-30	STOT RE 2 (H373)	01-2119456624-35-

SULPHATE				Aquatic Chronic 2 (H411)	XXXX
COPPER DINITRATE	Present	3251-23-8	1-10	Skin Corr. 1B (H314) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	No data available
ethane-1,2-diol	203-473-3	107-21-1	1-10	Acute Tox. 4 (H302) STOT RE 2: (H373)	01-2119456816-28-XXXX

**Additional Information**

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16.

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

<b>Eye Contact</b>	Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Transfer to hospital for specialist examination.
<b>Skin Contact</b>	Immediately remove all stained or splashed clothing that is not adhering to the skin. Wash off immediately with soap and plenty of water. If symptoms persist, call a doctor.
<b>Inhalation</b>	Remove person from exposure ensuring one's own safety while doing so. Call a doctor immediately.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

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

<b>Most important symptoms and effects, both acute and delayed</b>	Skin contact: There may be irritation and redness at the site of contact.
	Eye contact: There may be irritation and redness. The eyes may water profusely.
	Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
	Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.
	Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Eye bathing equipment should be available on the premises. Show this safety data sheet to the doctor in attendance.
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## Section 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

**Unsuitable extinguishing media**

No information available

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

Toxic fumes may be released in fire situations.

**5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear. Wear protective clothing to prevent contact with skin and eyes. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

#### Personal Precautions

Do not attempt to take action without suitable protective clothing. For personal protection see section 8. Stop leak if you can do it without risk. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. In the case of large spills (1 ton or more), alert the appropriate authorities.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

#### For emergency responders

Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

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

#### Methods for Containment

Surface drains within close vicinity of the spill should be covered. Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil.

#### Methods for cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

### 6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Handling

Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

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

#### Storage

Protect from freezing. Store above 5°C. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

### 7.3. Specific end use(s)

#### Specific Use(s)

No data available.

#### Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Chemical name	European Union	The United Kingdom	France	Spain	Germany
ethane-1,2-diol	TWA 20 ppm	STEL 40 ppm	TWA 20 ppm	TWA 20 ppm	-

107-21-1	TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> S*	STEL 104 mg/m <sup>3</sup> STEL 30 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> TWA 20 ppm TWA 52 mg/m <sup>3</sup> Skin	TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> P*	TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> S*	
<b>Chemical name</b>	<b>Italy</b>	<b>Portugal</b>	<b>The Netherlands</b>	<b>Finland</b>	<b>Denmark</b>
MANGANESE (II) SULPHATE 7785-87-7	-	-	-	TWA 0.02 mg/m <sup>3</sup>	-
COPPER DINITRATE 3251-23-8	-	-	-	TWA 0.02 mg/m <sup>3</sup>	-
ethane-1,2-diol 107-21-1	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> Pelle*	TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup> Ceiling 100 mg/m <sup>3</sup> C(A4) P*	Huid* STEL 104 mg/m <sup>3</sup> TWA 52 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup>	TWA 20 ppm TWA 50 mg/m <sup>3</sup> STEL 40 ppm STEL 100 mg/m <sup>3</sup> iho*	TWA 10 ppm TWA 26 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> H*
<b>Chemical name</b>	<b>Austria</b>	<b>Switzerland</b>	<b>Poland</b>	<b>Norway</b>	<b>Ireland</b>
ethane-1,2-diol 107-21-1	H* STEL 20 ppm STEL 52 mg/m <sup>3</sup> TWA 10 ppm TWA 26 mg/m <sup>3</sup>	SS-C** H* TWA 10 ppm TWA 26 mg/m <sup>3</sup> STEL 20 ppm STEL 52 mg/m <sup>3</sup>	TWA 15 mg/m <sup>3</sup> STEL 50 mg/m <sup>3</sup>	TWA 20 ppm TWA 52 mg/m <sup>3</sup> S* STEL 104 mg/m <sup>3</sup> STEL 40 ppm	TWA 10 mg/m <sup>3</sup> TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 30 mg/m <sup>3</sup> STEL 104 mg/m <sup>3</sup> Skin

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering measures** Ensure adequate ventilation, especially in confined areas. The floor of the storage room must be impermeable to prevent the escape of liquids.

## Personal protective equipment

**Eye/Face Protection** Tightly fitting safety goggles. Provide emergency on-site eyewash.

**Hand Protection** Gloves (acid resistant).

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** Not required under normal use.

**Environmental exposure controls** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical State</b>	Liquid
<b>Appearance</b>	No information available
<b>Odour</b>	Perceptible odour
<b>Colour</b>	Greenish-blue
<b>Odour threshold</b>	No information available
<b>pH</b>	1.5 - 2.5
<b>Melting point/freezing point</b>	No information available
<b>Boiling point/boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	
<b>Flammability Limit in Air</b>	

Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapour pressure	No information available
Vapour density	No information available
Specific gravity	1.31 - 1.32
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidising properties	Non-oxidizing (by EC criteria)

## 9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available
K <sub>st</sub>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None under normal use conditions

### 10.2. Chemical stability

Stable under recommended storage conditions.

#### Explosion data

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

### 10.3. Possibility of hazardous reactions

#### Hazardous polymerisation

Hazardous polymerization does not occur.

#### Hazardous reactions

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

Heat.

### 10.5. Incompatible materials

Strong reducing agents, Strong bases.

### 10.6. Hazardous decomposition products

May emit toxic fumes under fire conditions.

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

**Product Information**

**LD50 Oral** > 5000 mg/kg (rat) (Calculated Estimated Acute Toxicity - EAT)

**Skin corrosion/irritation** No information available.  
**Serious eye damage/eye irritation** No information available.  
**Sensitisation** No information available.  
**Mutagenicity** No information available.  
**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.

**Symptoms**

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

**Aspiration hazard** No information available.

## Section 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity**

RAINBOW TROUT (*Oncorhynchus mykiss*): 96H LC50 = 9.55 mg/L (calculated)

DAPHNIDS (*Daphnia magna*): 48H LC50 = 3.65 mg/L (calculated)

GREEN ALGAE: 72H ErC50 = 9.02 mg/L (calculated)

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

**Mobility in soil**  
No information available.

**Mobility**

Soluble in water.

#### **12.5. Results of PBT and vPvB assessment**

This product is not identified as a PBT/vPvB substance.

#### **12.6. Other adverse effects**

Toxic to aquatic organisms.

### **Section 13: DISPOSAL CONSIDERATIONS**

#### **13.1. Waste treatment methods**

<b>Waste from residues / unused products</b>	Transfer to a suitable container and arrange for collection by specialised disposal company. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not discharge to sewer systems.
<b>Contaminated Packaging</b>	Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EWC Waste Disposal No</b>	02 01 08
<b>OTHER INFORMATION</b>	NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

### **Section 14: TRANSPORT INFORMATION**

#### **IMDG/IMO**

<b>14.1 UN/ID no</b>	UN3082
<b>14.2 Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s (Manganese sulfate; Copper dinitrate)
<b>14.3 Hazard class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Marine Pollutant</b>	Yes
<b>Environmental Hazard</b>	Yes
<b>14.6 Special Provisions</b>	No special precautions. Tunnel code: E Transport category: 3
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	This product is not transported in bulk containers.

#### **RID**

<b>14.1 UN/ID no</b>	UN3082
<b>14.2 Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s (Manganese sulfate; Copper dinitrate)
<b>14.3 Hazard class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental Hazard</b>	Yes
<b>14.6 Special Provisions</b>	No special precautions. Tunnel code: E Transport category: 3

#### **ADR/RID**

<b>14.1 UN/ID no</b>	UN3082
<b>14.2 Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s (Manganese sulfate; Copper dinitrate)
<b>14.3 Hazard class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental Hazard</b>	Yes



**14.6 Special Provisions** No special precautions.  
Tunnel code: E  
Transport category: 3

**ICAO/IATA**

**14.1 UN/ID no** UN3082  
**14.2 Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s (Manganese sulfate; Copper dinitrate)  
**14.3 Hazard class** 9  
**14.4 Packing Group** III  
**14.5 Environmental Hazard** Yes  
**14.6 Special Provisions** No special precautions.  
Tunnel code: E  
Transport category: 3

## Section 15: REGULATORY INFORMATION

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

**National regulations** Not applicable

**European Union****Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)  
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not Applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not Applicable

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
MANGANESE (II) SULPHATE 7785-87-7	X	X	X	X	X	X	X	X
COPPER DINITRATE 3251-23-8	X	X	X	X	X	X	X	X
ethane-1,2-diol 107-21-1	X	X	X	X	X	X	X	X

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: OTHER INFORMATION

**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H373 - May cause damage to organs through prolonged or repeated exposure  
H400 - Very toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

**Legend**

<b>ADR:</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS:</b>	CAS (Chemical Abstracts Service)
<b>Ceiling:</b>	Maximum limit value:
<b>DNEL:</b>	Derived No Effect Level (DNEL)
<b>EINECS:</b>	EINECS (European Inventory of Existing Chemical Substances)
<b>GHS:</b>	Globally Harmonised System (GHS)
<b>IATA:</b>	International Air Transport Association (IATA)
<b>ICAO:</b>	International Civil Aviation Organization
<b>IMDG:</b>	International Maritime Dangerous Goods (IMDG)
<b>LC50:</b>	LC50 (lethal concentration)
<b>LD50:</b>	LD50 (lethal dose)
<b>PBT:</b>	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
<b>RID:</b>	Regulations Concerning the International Transport of Dangerous Goods by Rail
<b>STEL:</b>	Short term exposure limit
<b>SVHC</b>	SVHC: Substances of Very High Concern for Authorisation:
<b>TWA:</b>	time weighted average
<b>vPvB:</b>	very Persistent and very Bioaccumulative

**Revision date:** 2019-09-25

**Reason for revision:** SDS sections updated.

**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.

**Prepared By**

FMC Corporation

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**End of Safety Data Sheet**