

SECTION I: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product Identifier**

Product name: Combi

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

Use: Fertiliser

1.3 Details of the supplier of the safety data sheetCompany: Aquatrols Europe Ltd
Units 7-8 New Street Farm
Chilmington Green Road
Great Chart, Ashford
Kent TN23 3DLWebsite: uk.aquatrols.com

Phone number: + 44 (0)1233 756 241

Email: jjyichye@aquatrols.com**1.4 Emergency telephone**Phone number: CHEMTREC - (800) 424-9300
CHEMTREC INTERNATIONAL- +1-703-527-3887
NETHERLANDS - +31 88 755 85 61
SPAIN - +34 917 689 800
UK - + 44 2890 63 2032**SECTION II: Hazards Identification****2.1 Classification of the substance or mixture****Product description:** Mixture**Classification according to Regulation (EC) No. 1272/2008**

H319: Serious eye irritation – Category 2A

H360FD: Reproductive toxicity – Category 1B

H412: Hazardous to the aquatic environment, chronic toxicity – Category 3

2.2 GHS label elements

Labelled according to Regulation (EC) No. 1272/2008



Hazard pictograms:

Signal word:

DANGER

Hazard statements:

H319: Causes serious eye irritation
H360FD: May damage fertility. May damage the unborn child.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention:

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood.
Wash face, hands and any exposed skin thoroughly after handling.
Avoid release to the environment.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.

Storage:

Store locked up

Disposal:

Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

Not applicable.

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance/Mixture: Mixture

3.2 Hazardous ingredients

Chemical Name	CAS No. EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Concentration
Boric acid	10043-35-3 233-139-2	Repr. 1B – H360FD	1-10%
Iron (II) sulphate heptahydrate	7782-63-0 231-753-5	Acute Tox. 4 – H302 Skin Irrit. 2 – H315 Eye Irrit. 2 – H319	1-10%
Copper EDTA	39208-15-6 234-356-9	Acute Tox. 4 – H302	1-10%
Zinc sulphate (anhydrous)	7733-02-0 231-793-3	Acute Tox. 4 – H302 Eye Dam. 1 – H318 Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410	1-10%
1,2-benzisothiazolin-3-one	2634-33-5 220-120-9	Acute Tox. 4 – H302 Skin Irrit. 2 – H315 Skin Sens. 1 – H317 Eye Dam. 1 – H318	0-0.5%

3.3 Non-hazardous ingredients and impurities

Not applicable.

SECTION IV: FIRST AID MEASURES

4.1 Description of first aid measures

General advice:	Show this SDS to the doctor in attendance. First responder needs to protect himself. Place affected apparel in a sealed bag for subsequent decontamination.
Inhalation:	May cause irritation to mucous membranes. Move exposed person to fresh air. Consult a physician if necessary.
Skin contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Wash contaminated clothing before re-use.
Eye contact:	Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Ingestion:	Do not induce vomiting without medical advice. Seek medical advice.

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

Symptoms after inhalation:	May cause irritation to respiratory system.
Symptoms after skin contact:	May cause irritation to skin.
Symptoms after eye contact:	May cause irritation to eyes.
Symptoms after ingestion:	May cause irritation to mucous membranes.

4.3 Indication of any immediate medical attention and special treatment needed

Inhalation:	Inhalation of vapour may cause shortness of breath. Seek medical attention if irritation or symptoms persist.
Note to physician:	Treat symptomatically.

SECTION V: FIREFIGHTING MEASURES

5.1 Extinguishing mediaSuitable extinguishing media: Dry chemical, CO₂, foam, water spray.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Under fire conditions, will burn.

Hazardous decomposition products: Carbon oxides.**5.3 Advice for firefighters****Special protective equipment:** Firefighters should wear approved self-contained breathing apparatus and full protective clothing.**Further information:** Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.**SECTION VI: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures.**

Wear suitable protective equipment. For further information, see Section VIII "Exposure Controls/Personal Protection".

6.2 Environmental precautions

Do not allow to enter drains. Prevent further spillage if safe.

6.3 Methods and materials for containment and cleanup**Methods of containment:** Stop leak if safe to do so.
Dam up with sand or inert earth (do not use combustible materials).**Recovery:** Soak up with inert absorbent materials.
Shovel or sweep up.
Keep in suitable, closed container for disposal.
Never return spills to original containers for re-use.

Decontamination/cleaning: Clean contaminated surface thoroughly.
Wash non-recoverable remainder with large amounts of water.
Recover the cleaning water for subsequent disposal.
Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal: Dispose of in accordance with local regulations.

6.4 Reference to other sections

See Section VII for Handling and Storage.

SECTION VII: HANDLING AND STORAGE

7.1 Precautions for safe handling of the substance/mixture.

Technical measures: Provide adequate ventilation.

Advice on safe handling and usage: Avoid inhalation of vapor or mist.
Avoid contact with skin and eyes.

Hygiene measures: Personal hygiene is an important workplace practice exposure control measure and the following general measures should be taken when working with or handling this material:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Recommended: Keep container tightly closed in a cool, dry, well-ventilated place. Keep out of reach of children. Keep in properly labeled containers.

To be avoided: Keep away from open flames, hot surfaces and sources of ignition.
Keep away from incompatible materials

Storage stability

Storage temperature: No data available.

7.3 Specific end use(s)

See Section I

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION**General comments**

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Local and general ventilation.

8.2 Exposure controls

Exposure limits: Manganese sulphate: 0.5 mg/m³

Protective measures: Ensure that eyewash stations and safety showers are close to workstation. Emergency equipment immediately accessible, with instructions for use. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

Respiratory protection: When respirators are required, use approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate

	regulatory standards and/or industrial recommendations.
Hand protection:	Gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Eye protection:	Eye and face protection will vary dependent upon work, environmental conditions and material handling practices. Appropriate approved equipment should be selected for the particular use intended for this material. Eye contact should be prevented through the use of safety glass with side-shields.
Body protection:	Footwear protecting against chemicals; impervious clothing.
Hygiene measures:	Personal hygiene is an important workplace practice exposure control measure and the following general measures should be taken when working with or handling this material: <ol style="list-style-type: none">1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.3) Wash exposed skin promptly to remove accidental splashes or contact with material.

SECTION IX: CHEMICAL AND PHYSICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Liquid
Color:	Green
Odor:	Characteristic

Odor threshold:	No data available
pH:	6 – 7
Freezing point:	Not determined
Boiling point:	Not determined
Flashpoint:	Not determined
Evaporation rate:	Not determined
Flammability:	Not determined
Upper explosive limit:	No data available
Lower explosive limit:	No data available
Vapor pressure:	Not determined
Vapor density:	Not determined
Specific gravity :	1.3 - 1.34 g/mL
Solubility:	Soluble in water
Partition n-octanol/water:	No data available
Autoignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information

Not applicable

SECTION X: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Burning produces obnoxious and irritating fumes.

10.5 Incompatible materials

Strong bases.

10.6 Hazardous decomposition products

No data available.

SECTION XI: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

Acute oral toxicity: May cause irritation.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Copper EDTA	1000 mg/kg (rat)	-	-
Iron (II) sulphate heptahydrate	500 mg/kg (rat)	-	-

Skin corrosion/irritation

Skin irritation: No data available

Serious eye damage/eye irritation

Eye irritation: Not data available

Respiratory or skin sensitization

Sensitization: No data available

Mutagenicity

Genotoxicity in vitro: No data available

Genotoxicity in vivo: No data available

Carcinogenicity

Carcinogenicity: No data available

Toxicity for reproduction and development

Toxicity to reproduction/fertility: No data available

Developmental toxicity/teratogenicity: No data available

SECTION XII: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Custacea
Copper EDTA	69.9: 72 h Desmodesmus subspicatus (green algae) mg/L IC50	100: 96 h Poecillia reticulata mg/L LC50		101: 24 h Daphnia magna mg/L EC50

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not yet fully tested.

12.6 Other adverse effects

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

SECTION XIII: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Advice on disposal: Dispose of in compliance with all local and national regulations.

Contaminated containers: Rinse with appropriate solvent. Dispose of contents/container in accordance with local regulations.

SECTION XIV: TRANSPORT INFORMATION

In accordance with the provisions of ADR/RID/ADNR/IMDG/ICAO/IATA

14.1 UN Number

Not classified as dangerous

14.2 Shipping name UN Model

Not applicable

14.3 Transport hazard class

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Other information: No additional information available

14.6 Special precautions for use

No additional information available

14.6.1 Ground transport

No additional information available

14.6.2 Sea transport

No additional information available.

14.6.3 Air transport

No additional information available

14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code

Not applicable.

SECTION XV: REGULATORY INFORMATION**15.1 Safety legislation specific for the substance or mixture****15.1.1 EU-Regulations**

No restrictions according to Annex XVII of REACH. Does not contain REACH candidate substances.

15.1.2 National regulations

No information available

15.2 Chemical safety assessment

No information available

SECTION XVI: OTHER INFORMATION

More information**Abbreviations**

ADR:	European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMDG:	International Maritime Code for Dangerous Goods
LC50:	Lethal Concentration 50%
LD50:	Lethal Dose 50%
EC50:	Effective Dose 50%
IC50:	Inhibitory Concentration 50%
CLP:	Classification, Labelling and Packaging
CAS:	Chemical Abstract Service
RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
IATA-DGR:	International Air Transport Association Dangerous Goods Regulations
GHS:	Globally Harmonized System (GHS) of Labelling Chemical Products
REACH:	Registration, Evaluation, Authorization and Restriction of Chemical Products
IARC:	International Agency for Research on Cancer
Version:	1.0
Previous version:	Not applicable
Reason for revision:	New SDS

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