ADAGA

# *SAFETY DATA SHEET*

## ADAGA COMBI

### According to Regulation (EC) No 1907/2006 (REACH), (EC) No 1272/2008 (CLP)

Revision Date: -
Issue Date: 26.09.2024

Revision:
Form No:

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

### 1.1. Product identifier

**Product name** ADAGA COMBI

**Product identifier** Fertilizer

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

**Identified uses** Fertilizer

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

**Company** ADAGA SAĞLIK KİMYA SANAYİ A.Ş.
Altıayak Mh. 8525 Sk. No:22/F Kepez/Antalya
Tel: 0(242) 340 00 33 www.adaga.com.tr

**Contact Person** Chemical Engineer Nazlı Kılıç (nazli@nameconsulting.com.tr)

### 1.4. Emergency telephone number

Contact the national poison counseling center.

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**2.1.1 Hazard Classification (EC) No 1272/2008**
This product is not classified as hazardous according to regulation (EC) 1272/2008[CLP/GHS].

| | |
|---|---|
| Physical and chemical hazards | Not classified. |
| Human health | Acute Tox. 4 - H302<br>Skin Cor . 2 - H315<br>Eye Dam. 2 - H319<br>Acute Tox. 4 - H332 |
| Environment | Not classified. |

### 2.2. Label elements

**2.2.1. Labeling According to Regulation (EC) No 1272/2008 [CLP/GHS]**

GHS07
**Signal Word:** Attention
**Contains:** Copper Sulphate, Iron Sulphate, Manganese Sulphate, Zinc Sulphate.H20
**Hazard Statements:**
**H302** It is harmful if swallowed.
**H332** It is harmful if inhaled.

**Precautionary Statements:**
**P101** If medical advice is needed, keep the container or label.
**P102** Keep out of reach of children.
**P103** Read the label before use.
**P261** Avoid breathing dust/fume/gas/mist/vapors/spray**.**
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. If you have contact lenses, remove them if easy. Continue rinsing.
**P501** Dispose of contents/container according to local regulations.

### 2.1. Other hazards

This product does not contain any PBT or vPvB substances.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

| Name | EC No. | CAS No. | Concentration % | Classification according to Regulation (EC) No 1278/2008 (CLP) |
|---|---|---|---|---|
| Aqua | 231-791-2 | 7732-18-5 | ≤ 93,2 | Not classified |
| Boric Acid | 233-139-2 | 10043-35-3 | ≤ 0,3 | Not classified |
| Copper Sulphate | 231-847-6 | 7758-99-8 | ≤ 0,5 | Acute Tox. 4 - H302<br>Eye Dam. 1 - H318<br>Aqua. Tox. 1-H400<br>Aquatic Chr. 1 - H410 |
| Iron Sulphate | 231-753-5 | 7782-63-0 | ≤ 3 | Acute Tox. 4 - H302<br>Skin Cor.2 - H315<br>Skin Cor.1A - H314<br>Eye Dam. 2 - H319 |
| Manganese Sulphate | 232-089-9 | 10034-96-5 | ≤ 1 | Acute Tox. 4 - H302<br>Acute Tox. 4 - H332 |
| Zinc Sulphate.H20 | 231-793-3 | 7446-19-7 | ≤ 2 | Acute Tox. 4 - H302<br>Eye Dam. 1 - H318<br>Aquatic Chr. 1 - H410 |

The Full Text for all Hazard Statements are Displayed in Section 16.
The highest concentration values were used for calculations.

**Composition Comments**

- The data shown are in accordance with the latest EC Directives.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**Inhalation** : IF INHALED: Remove victim to fresh air and keep in a position comfortable for breathing.

**Ingestion** : IF SWALLOWED: Rinse mouth. DO NOT try to vomit.

**Skin contact** : Skin contact not relevant

**Eye contact** : IF IN EYE CONTACT: Rinse carefully with water for a few minutes. Remove contact lenses, if present and easy to perform. Continue rinsing.

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

**Inhalation :** Dizzines

**Ingestion :** Nausea, vomiting.

**Skin contact :** No specific symptoms known.

**Eye contact :** Causes serious eye damage.

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

Notes for the doctor: No specific recommendations.

## SECTION 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media**

**Extinguishing media**

This product is not flammable. Extinguish with foam, carbon dioxide, dry powder or water fog.

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

**Specific hazards**

In case of fire, toxic gases may be formed. Carbon monoxide (CO). Carbon dioxide ($CO_2$).
May cause explosion hazard of dust.

**5.3. Advice for firefighters**

**Special Fire Fighting Procedures**

Avoid breathing fire fumes. If this can be done without risk, move the container away from the fire area. If possible, intervene the fire from a protected place.

**Protective equipment for fire-fighters**

Self-contained breathing apparatus and full protective clothing should be worn in case of fire. Face mask, protective gloves and safety helmet should be used.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions**: Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes.

**6.2. Environmental precautions**

**Environmental precautions**: Not considered to be a significant hazard due to the small quantities used.

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

Wash off spills with plenty of water. Avoid contamination of ponds or streams with wash water. Absorb spillage with non-combustible absorbent material. Do not discharge into drains, waterways or on the ground.

**6.4. Reference to other sections**

For personal protection, see section 8.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

**7.1. Precautions for safe handling**

Do not eat, drink or smoke when using the product. Protect against direct sunlight.
Read and follow manufacturer's recommendations. Avoid contact with skin and eyes.

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

Stable at normal ambient temperatures.
Protect from light, including direct sunrays.

### 7.3. 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

Exposure guidelines do not apply when the product is used as intended in a home environment.

***DNEL Values***

**Boric Acid**
(DNEL) 8.3 mg/m³ Systemic Effects Workers with Long-Term Respiratory Exposure
(DNEL) 4.15 mg/m³ Systemic Effects General Population with Long-Term Inhalation Exposure
(DNEL) 392 mg/kg bw/day Systemic Effects Workers with Long-Term Dermal Exposure
(DNEL) 196 mg/kg bw/day Systemic Effects General Population with Long-Term Dermal Exposure
(DNEL) 980 µg/kg bw/day Systemic Effects General Population with Long-Term Oral Exposure
(DNEL) 980 µg/kg bw/day Systemic Effects General Population with Acute/Short-Term Oral Exposure

**Copper Sulphate**
(DNEL) 1 mg/m³ Systemic Effects Workers with Long-Term Inhalation Exposure
(DNEL) 1 mg/m³ Systemic Effects General Population with Long-Term Inhalation Exposure
(DNEL) 137 mg/kg bw/day Systemic Effects Workers with Long-Term Dermal Exposure
(DNEL) 41 µg/kg bw/day Systemic Effects General Population with Long-Term Oral Exposure
(DNEL) 82 µg/kg bw/day Systemic Effects General Population with Acute/Short-Term Oral Exposure

**Iron Sulphate**
(DNEL) 2,8 mg/kg bw/day Systemic Effects Workers with Long-Term Dermal Exposure
(DNEL) 1,4 mg/kg bw/day Systemic Effects General Population with Long-Term Dermal Exposure
(DNEL) 280 µg/kg bw/day Systemic Effects General Population with Long-Term Oral Exposure
(DNEL) 20 µg/kg bw/day Systemic Effects General Population with Acute/Short-Term Oral Exposure

**Manganese Sulphate**
(DNEL) 4,14 mg/kg bw/day Systemic Effects Workers with Long-Term Dermal Exposure
(DNEL) 43 µg/m³ Systemic Effects General Population with Long-Term Inhalation Exposure
(DNEL) 2,1 µg /kg bw/day Systemic Effects Workers with Long-Term Dermal Exposure

***PNEC Values***

**Boric Acid**
Danger to Aquatic Creatures
Fresh Water 2.9 mg/L (1)
Intermittent releases (fresh water) 13.7 mg/L (1)
Seawater 2.9 mg/L (1)
Intermittent oscillations (seawater) -
Wastewater treatment plant (STP) 10 mg/L (1)
Sediment (freshwater) No exposure to sediment expected (1)
Sediment (seawater) No exposure to sediment expected (1)

**Copper Sulphate**
Freshwater 7.8 µg/L (1)
Intermittent releases (freshwater) -
Marine water 5.2 µg/L (1)
Intermittent releases (marine water) -
Sewage treatment plant (STP) 230 µg/L (1)
Sediment (freshwater) 87 mg/kg sediment dw (1)
Sediment (marine water) 676 mg/kg sediment dw (1)

**Manganese Sulphate**
Freshwater 30 µg/L (1)
Intermittent releases (freshwater) 87.9 µg/L (1)
Marine water 400 ng/L (1)
Intermittent releases (marine water) -
Sewage treatment plant (STP) 56 mg/L (1)
Sediment (freshwater) 11.4 µg/kg sediment dw (1)
Sediment (marine water) 1.14 µg/kg sediment dw (1)

**Zinc Sulphate.H20**
Freshwater 14.4 - 35.6 µg/L (2)
Intermittent releases (freshwater) -
Marine water 7.2 - 17.8 µg/L (2)
Intermittent releases (marine water) -
Sewage treatment plant (STP) 100 - 246.9 µg/L (2)
Sediment (freshwater) 146.9 - 362.7 mg/kg sediment dw (2)
Sediment (marine water) 162.2 - 400.5 mg/kg sediment dw (2)

**8.2. Exposure controls**

| | |
|---|---|
| Protective equipment | |
| Engineering control | : Not relevant. |
| Respiratory equipment | : No personal protective respiratory equipment is normally required. Respiratory protection in case of vapor/aerosol release. Particulate filter EN 143 or 149, Type P2 or FFP2, medium filtering capacity (solid and liquid particles of less toxic substances). |
| Hand protection | : Protective in case of prolonged or repeated contact wear gloves. Protective gloves conforming to EN 374. |
| Eye protection | : Close-fitting safety glasses (closed goggles) (Class EN 166) and face mask. |
| Other skin and body protection | : Wear protective clothing such as rubber or neoprene gloves and a long sleeved T- shirt |
| Hygiene measures | : Eating, drinking, smoking and inhaling any substance in the workplace it is forbidden. Use in accordance with good industrial hygiene and safety practices. Personal protection equipment must be free of hazardous and harmful substances before reuse. |
| Environmental Exposure Controls | : Not relevant. |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance** | Liquid |
| **Colour** | Translucent |
| **Odour** | Specific |
| **Solubility** | No data available |
| **Boiling Point** | No data available |
| **Melting point** | No data available |
| **pH-Value** | No data available |
| **Flash Point** | No data available |
| **Viscosity** | No data available |
| **Decomposition temperature** | No data available |
| **Density** | No data available |
| **Partition Coefficient (N-Octanol/Water)** | No data available |

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

**9.2. Other information**

No information required.

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

No specific reactivity hazards associated with this product.

**10.2. Chemical stability**

Stable under normal temperature conditions and recommended use. Stable under the prescribed storage conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous Polymerisation**
Stable under suitable storage conditions.

**10.4. Conditions to avoid**

There are no known conditions that are likely to result in a hazardous situation.

**10.5. Incompatible materials**

There are no known data based on the information given.

**10.6. Hazardous decomposition products**

Does not decompose when used and stored as recommended.

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

***Acute Toxicity***

**Boric Acid**
Oral route:
No adverse effects observed LD50 3 765 mg/kg body weight
Inhalation route:
No adverse effects observed LC50 2 mg/m³ air
Dermal route:
No adverse effects observed LD50 2 000 mg/kg body weight

**Copper Sulphate**
Oral
LD50 481 - 482 mg/kg bw (rat) [2]
Dermal
LD50 2000 mg/kg bw (rabbit)

**Iron Sulphate**
Oral
Adverse effect observed LD50 500 mg/kg bw
Dermal
LD50 881 - 2 000 mg/kg bw (rat) [4]

**Manganese Sulphate**

Oral
LD50 1 470 - 2 150 mg/kg bw (rat) [2

**Zinc Sulphate.H20**
Oral route:
Adverse effect observed LD50 574 mg/kg bw
Dermal route:
No adverse effect observed LD50 2 000 mg/kg bw

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Boric Acid**
Short-term toxicity to fish
LC50 (4 days) 74 - 79.7 mg/L [2]
Short-term toxicity to aquatic invertebrates
LC50 (4 days) 64 - 544 mg/L [15]
LC50 (48 hours) 91 - 165 mg/L [8]
NOEC (4 days) 103 mg/L [1]

**Copper Sulphate**
Short–term toxicity to fish
LC50 (4 days) 2.8 - 9 150 µg/L [346]
LC50 (48 h) 5.9 - 30.2 µg/L [11]
NOEC (4 days) 12.2 - 29.2 µg/L [4]
Long–term toxicity to aquatic invertebrates
NOEC (8 months) 8.3 - 13.8 µg/L [2]
NOEC (3.333 months) 11 - 19.1 µg/L [2]
NOEC (63 days) 13 µg/L [1]
NOEC (56 days) 10 µg/L [1]
NOEC (46 days) 9.9 µg/L [2]

**Manganese Sulphate**
Short–term toxicity to fish
LC50 (4 days) 3.17 - 116 mg/L [8]
EC50 (4 days) 3.77 - 4.83 mg/L [2]
LL50 (4 days) 5.12 mg/L [1]
Short–term toxicity to aquatic invertebrates
LC50 (48 h) 9.8 - 39.46 mg/L [2]
NOEC (48 h) 27.2 mg/L [1]
LOEC (48 h) 53.67 mg/L [1]

**Zinc Sulphatc.H20**
Short–term toxicity to fish
LC50 (4 days) 102 - 35 980 µg/L [98]
LC50 (95 h) 330 µg/L [1]
Short–term toxicity to aquatic invertebrates
EC50 (48 h) 105 - 2 909 µg/L [31]
EC50 (2.5 h) 260 - 560 µg/L [3]
LC50 (4 days) 110 - 68 800 µg/L [39]
LC50 (48 h) 41 - 1 514 µg/L [42]
LC50 (24 h) 243.4 - 69 560 000 µg/L [6]

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

**Mobility:**
Insoluble in water.

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

This product does not contain any PBT or vPvB substances.

**12.6. Other adverse effects**

**Other adverse effects:** None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements. Contact specialist disposal companies. Environmental manager must be informed of all major spillages.

## SECTION 14: TRANSPORT INFORMATION

General — The product is covered by international regulation 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)**

ADR Class: -
IMDG Class: -
ICAO/IATA: -

**14.4 Packing group**

**14.5. Environmental hazards**

ADR/RID/ADN Packing group: -
IMDG Packing group: -
ICAO-IATA Packing group: -

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**14.8. Environmental damages**

Environmentally Dangerous Substance/Marine Polluting Substance

It is a substance that is harmful to the environment

**14.9. Special precautions for the user**

Packing instruction: -

Hazard number: -

Tunnel Restriction Code:-

## SECTION 15: REGULATORY INFORMATION

This format refers to MSDS requirements American National Standard Institute(ANSI) and International Standard Organization (ISO)

## SECTION 16: OTHER INFORMATION

**Abbreviations and acronyms used in the safety data sheet**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.(ADR 2015)
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.
This product is classified according to EU Directive GHS/CLP.
This safety datasheet complies with the requirements of Regulation (EC) No.1907/2006 (REACH).

**Revision Comments: -**

**Hazard Statements All**

**H302** It is harmful if swallowed.
**H314** Causes severe skin burns and eye damage.
**H315** Causes skin irritation.
**H318** Causes serious eye damage.
**H319** Causes serious eye irritation.
**H332** Harmful if inhaled.
**H400** It is very toxic to the aquatic environment.
**H410** Very toxic to aquatic life with long lasting effects.

***Prepared the Safety Data Sheet***
Chemical Engineer Nazlı Kılıç / nazli@nameconsulting.com.tr
Certificate Number: KDU01.32.02 Certificate Date: 20 May 2023

Disclaimer

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