

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

1.1. Product identifier

| | |
|--------------------|---------------------|
| Product name | ADAGA ZINC |
| Product identifier | Fertilizer Solution |

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

| | |
|-----------------|---------------------|
| Identified uses | Fertilizer solution |
|-----------------|---------------------|

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 | Eye Dam. 1 –H318 |
| Environment | Aquatic Chr. 1 - H410 |

2.2. Label elements

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



GHS05

GHS09

Signal Word: Danger

Contains: Zinc Sulphate.

Hazard Statements:

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. If you have contact lenses, remove them if easy. Continue rinsing.

P273 Avoid release to the environment.

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 | ≤ 63,9 | Not classified |
| Zinc Sulphate | 231-793-3 | 7733-02-0 | ≤ 31,9 | Acute Tox. 4 - H302 Eye Dam. 1 - H318 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 : Dizziness

Ingestion : Nausea, vomiting.

Skin contact : Causes severe skin irritation.

Eye contact : Causes serious eye irritation.

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 (CO₂).
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

-

PNEC Values

Zinc Sulphate

Hazard for Aquatic Organisms

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

Respiratory equipment

: Not relevant.

: 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 | Transparent |
| Odour | Odorless |
| Solubility | No data available |
| Boiling Point | No data available |
| Melting point | No data available |
| pH-Value | 5,00 – 7,00 |
| Flash Point | No data available |
| Viscosity | No data available |
| Decomposition temperature | No data available |
| Density | 1,00 – 1,50 g/cm ³ |
| 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

Zinc Sulphate

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

Zinc Sulphate

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

UN 3082

14.2. UN proper shipping name

SUBSTANCES, LIQUIDS, HARMFUL TO THE ENVIRONMENT, ZINC SULPHATE

14.3. Transport hazard class(es)

ADR Class: IX
IMDG Class: IX
ICAO/IATA: IX

14.1. Packing group



14.2. Environmental hazards

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

14.3. Special precautions for user

Not applicable.

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

Not applicable.

14.5. Environmental damages

Environmentally Dangerous Substance/Marine Polluting Substance

It is a substance that is harmful to the environment

14.6. Special precautions for the user

Packing instruction: P001

IBC03

LP01

R001

Hazard number: 90

Tunnel Restriction Code: 3 (-)

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 Harmful if swallowed.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Prepared the Safety Data Sheet

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Certificate Number: KDU01.32.02 Certificate Date: 20 May 2023



SAFETY DATA SHEET

ADAGA ZINC

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

Revision Date: -

Issue Date: 12.09.2024

Revision:

Form No:

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.