

Safety Data Sheet	
According to EC Regulation 1907/2006	
Date of creation:	28.03.2018
Date of updating:	Not applicable.
Version:	1.0



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

PROAQUA TRIO

Contains: Diammonium dihydrogen ethylenediaminetetraacetate

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

Industrial use: Formulation and / or repacking of preparations: Mixing in batch processes for mixtures production.

Applications for professional users: a mixture improving the physicochemical properties of water used to prepare solutions in foliar feeding and plant protection.

Use not recommended

Unknown

1.3. Details of the supplier of the safety data sheet

Name: INTERMAG sp. z o.o.

Address: Al. 1000-lecia 15G, 32-300 Olkusz, Poland

Phone number: +48 326455900

Fax number: +48 326427044

E-mail address: intermag@intermag.pl

E-mail address (SDS): msds@intermag.pl

1.4. Emergency telephone number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Eye Irrit. 2, H319 – Causes serious eye irritation.

Acute Tox. 4, H332 – Harmful if inhaled.

STOT RE 2, H373 – May cause damage to organs/respiratory tract through prolonged or repeated exposure by inhalation.

Explanations of the abbreviations are provided in section 16.

2.2. Label elements

Hazard pictograms



Signal Word

Warning

Hazard Statements (H)

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

H373 - May cause damage to organs/respiratory tract through prolonged or repeated exposure by inhalation.

Precautionary statements (P)

- P260 – Do not breathe mist/vapour/spray.
 - P280 – Wear protective eye protection/face protection.
 - P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P312 – Call a doctor if you feel unwell.
 - P501 – Dispose of content/container to authorized waste recipient.
- 2.3. Other hazards
- The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

SECTION 3: Content/information on ingredients

3.1. Substances: not applicable

3.2. Mixtures: water solution

Name	Index number	CAS	EC	% by weight	Classification	Registration number
Diammonium dihydrogen ethylenediaminetetraacetate	not available	Z0824-56-0	Z44-063-4	30-40	Acute Tox. 4, H332 STOT RE 2, H373	01-2119489386-22 XXXX
Citric acid	not available	5949-29-1	Z01-069-1	4-5	Eye Irrit. 2, H319	01-2119457026-42 XXXX
Alcoholic C9-11, ethoxylated	not available	68439-46-3	brak	2,5-2,9	Acute Tox. 4, H302 Eye Dam. 1, H318	not available, polymer

If dangerous constituents are mentioned, the meaning of H phrases is given in clause 16 of the safety data sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures

If health problems or doubts occur, always seek medical advice and show information given in this safety data sheet.

Inhalation

Stop working and move or take the victim to fresh air and provide rest conditions in a position that allows breathing. In case of loss of consciousness maintain airways patency. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If a person is not breathing, breathing irregularly or when breathing has stopped, qualified personnel should give artificial respiration or give oxygen. May be dangerous for the person giving mouth-to-mouth ventilation. If the victim lose consciousness, position him in first aid position and get medical attention immediately. Ensure open ventilation.

Skin

Remove contaminated clothing. Rinse skin with plenty of soap and water. Wash clothes before re-use. If presence of any alarming symptoms, contact a doctor.

Eye

if the victim wears contact lenses, they should be removed before washing if it is possible. Rinse the eyes immediately with plenty of water for at least 15 min keeping the lids wide open. Avoid a strong water jet due to the risk of mechanical damage to the cornea. If irritation persists, contact ophthalmologist.

Ingestion
Rinse mouth with water. Give about 200-300 ml of drinking water only if the injured person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting. Medical assistance is required - show the packaging or label.

4.2. Most important symptoms and effects, both acute and delayed
Eye contact: irritating to eyes.
Inhalation: difficulty breathing.

Skin contact: no data available.
Ingestion of large quantities: gastrointestinal complaints
4.3. Indication of any immediate medical attention and special treatment needed
The decision about the method of rescue procedure is made by the doctor after a thorough assessment of the injured person's condition.

SECTION 5: Firefighting measures

5.1. Extinguishing media
CO₂, foams, water spray and other extinguishing media suitable for materials on fire in the vicinity of the product.
Unsuitable extinguishing media: water jet.

5.2. Special hazards arising from the substance or mixture
The product is not flammable under normal conditions. The products of decomposition and combustion of the mixture may be toxic: sulfur oxides, carbon oxides, nitrogen oxides. Inhalation of gases formed during thermal decomposition may cause irritation

5.3. Advice for firefighters
Use gas-tight protective clothing and personal breathing apparatus. Suppress (knock down) gases / vapors / mists with a water spray jet. Fire residues should be disposed of in accordance with applicable regulations. Do not allow contaminated fire extinguishing water to reach ground and surface waters. In the event of environmental contamination, notify the appropriate local authorities.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Notify the surroundings about the accident; remove from the danger area all persons not involved in the liquidation of the accident; if necessary, order evacuation. Avoid direct prolonged contact with the released mixture. Avoid breathing vapors / mists. If released in a confined space, ensure effective ventilation. Use personal protection equipment (see section 8 for information).

6.2. Environmental precautions
If it is possible and safe, eliminate or limit the leakage (seal, close the liquid supply, place damaged packaging in emergency packaging). Limit the spreading of floodwaters by embanking the area. The product is unrestrictedly soluble in water. Prevent product from entering drains, underground and surface waters, and soil.

6.3. Methods and material for containment and cleaning up

Repair the contaminated area, secure the sewers inlets. In the event of large quantities leakage - embank the place of liquid accumulation and pump the collected liquid. If smaller amounts leak, cover with inert absorbent material (sand, soil, vermiculite, diatomaceous earth), collect in a labeled container. Flush residue with plenty of water. Dispose of contaminated absorbent material and washings in accordance with local regulations.

6.4. Reference to other sections
Personal protective equipment is specified in Section 8. Dispose of in accordance with the recommendations set out in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Use as intended only by trained and properly equipped personnel protection personnel. When working with the product, do not eat, drink or smoke. Before entering food-handling areas, remove contaminated clothing and protective equipment. Wash hands before breaks and after finishing work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Store in an airtight, labeled container in well-ventilated areas. Protect against sunlight and weather conditions. Containers that have been opened must be resealed and stored upright. Keep away from incompatible materials, food and feed.

7.3. The specific end use(s)
Mixture that improves the physicochemical properties of water used to prepare solutions in foliar feeding and plant protection.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Data for Diammonium dihydrogen ethylenediaminetetraacetate WORKERS

DNEL/DWEL via dermal route
No data available.
DNEL/DWEL via inhalation route
3 mg/m³

GENERAL POPULATION
DNEL/DWEL via dermal route
No data available.
DNEL/DWEL via inhalation route

1.2 mg/m³
DNEL/DWEL via oral route
25 mg/kg b.w./day
PNEC freshwater
2.2 mg/L
PNEC marine water
0.22 mg/L
PNEC for water environment (temporary release)
No data available.
PNEC STP

43 mg/L
PNEC for sediment (freshwater)
No data available.
PNEC for sediment (seawater)
No data available.

PNEC for air
 No data available.
 PNEC for terrestrial organisms
 0.72 g/kg soil dw
 Data for citric acid
 WORKERS
 DNEI/DMEL via dermal route
 No data available.
 DNEI/DMEL via inhalation route
 No data available.
 GENERAL POPULATION
 DNEI/DMEL via dermal route
 No data available.
 DNEI/DMEL via inhalation route
 No data available.
 DNEI/DMEL via oral route
 No data available.
 PNEC freshwater
 No data available.
 PNEC marine water
 No data available.

PNEC for water environment (temporary release)
 No data available.
 PNEC STP
 No data available.
 PNEC for sediment (freshwater)
 No data available.
 PNEC for sediment (seawater)
 No data available.
 PNEC for air
 No data available.
 PNEC for terrestrial organisms
 No data available.
 Note: When the concentration of the substance is known, the selection of personal protective equipment should be made taking into account the concentration of the substance present in the workplace, exposure time and the activities performed by the employee. In an emergency, if the concentration of the substance in the workplace is not known, use personal protection measures recommended for the highest protection class. The employer is obliged to ensure that the used personal protective equipment, clothing and shoes have protective and functional properties and ensure their proper cleaning, maintenance, repair and decontamination.

8.2. Exposure controls
 Use in accordance with the principles of good industrial practice and safety principles. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Keep away from food and feed. Wash hands and face after handling the product. Take off contaminated clothing immediately and wash before reuse.

8.2.1. Technical protective measures:
 Local and general ventilation.

8.2.2. Personal protection measures such as individual protection equipment

8.2.2.1. Eye/face protection
 Tight-fitting protective glasses (EN 166)

8.2.2.2. Skin protection
 Protection of hands
 Coated protective gloves according to EN374 and CE marking.
 Other
 Protective boots and clothing (EN 340).

8.2.2.3. Respiratory protection
 The use of appropriate breathing apparatus or air filters is required when mists are formed or occupational exposure limits are exceeded. The choice of respiratory mask should be made on the basis of known or expected level of exposure, product danger and safety limits (in accordance with EN 143).

8.2.2.4. Thermal hazards
 Not required.

8.2.3. Environmental exposure controls
 Emissions from ventilation systems and process equipment should be controlled to determine their compliance with environmental protection requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
 Liquid, biphasic darkblue/lightyellow.
 Odour

Almost odourless.
Odour threshold
No data available.
pH
6.3 ± 0.5 (in 20°C)
Melting/freezing point
No data available.
Initial boiling point and boiling range:
No data available.
Flash point
No data available.
Evaporation rate
No data available.
Flammability (solid, gas)
Not applicable.
Upper flammability or explosive limit
No data available.
Lower flammability or explosive limit
No data available.
Vapor pressure
No data available.
Vapor density
No data available.
Relative density
1.210 ± 0.03 (at 20°C)
Solubility(ies)
Fully water soluble
Partition coefficient: n-octanol/water
No data available.
Auto-ignition temperature
No data available.
Decomposition temperature
No data available.
Viscosity
No data available.
Explosive properties
The mixture is not explosive.
Oxidizing properties
The mixture is not oxidizing.

9.2. Other information

None

SECTION 10: Stability and reactivity

10.1. Reactivity

Citric acid reacts with alkaline materials. C9-11 alcohols, ethoxylated, react with oxidants.

10.2. Chemical stability

The product is stable under recommended conditions of use and storage.

10.3. Possibility of hazardous reactions

Under normal conditions of use, hazardous reactions are not possible. Under the influence of alkalinizing substances, the diammonium dihydrogen salt of ethylenediaminetetraacetic acid can release ammonia and reacts with hypochlorites to release explosive chloramines.

10.4. Conditions to avoid

High temperature, fogging.

10.5. Incompatible materials

Strong oxidizing agents, bases, amphoteric metals, chlorinating agents, hypochlorites, halides, alkali metals, reducing substances, strong acids, sodium nitrite, potassium nitrite.

10.6. Hazardous decomposition products

Under normal conditions of use, hazardous decomposition products are not present. Under the influence of high temperature, it decomposes with the release of harmful sulfur oxides, carbon oxides, and nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1. Acute toxicity

Harmful if inhaled.

Diammonium dihydrogen ethylenediaminetetraacetate:

LD50 (oral, rat male / female): 2.800 mg / kg

LC50 (inhalation, male rat): > 1 mg / l

Citric acid:

LD50 (oral, mouse): 5400 mg / kg

LD50 (skin): > 2000 mg / kg

C9-11 alcohols, ethoxylated:

LD50 (oral, rat): 1.400 mg / kg

LD50 (skin, rabbit): > 2000 mg / kg

11.1.2. Skin corrosion/irritation

Based on available data, the classification criteria are not met. Information on diammonium dihydrogen ethylenediaminetetraacetate based on similar structure (read-across). Citric acid may cause mild skin irritation.

11.1.3. Serious eye damage/eye irritation

Based on available data, the classification criteria are not met. Information on diammonium dihydrogen ethylenediaminetetraacetate based on similar structure (read-across). Citric acid is irritating to eyes. C9-11 ethoxylated alcohols cause serious eye damage.

11.1.4. Respiratory or skin sensitization

Based on available data, the classification criteria are not met. The diammonium dihydrogen ethylenediaminetetraacetate was not sensitizing on guinea pigs (OECD 406).

Citric acid was not sensitizing.

11.1.5. Germ cell mutagenicity

Based on available data, the classification criteria are not met. Information on diammonium dihydrogen ethylenediaminetetraacetate based on similar structure (read-across). Citric acid is not mutagenic on germ cells.

11.1.6. Carcinogenicity

Based on available data, the classification criteria are not met. Information on diammonium dihydrogen ethylenediaminetetraacetate based on similar structure (read-across). Citric acid is not carcinogenic.

11.1.7. Reproductive toxicity

Based on available data, the classification criteria are not met. Information on diammonium dihydrogen ethylenediaminetetraacetate based on similar structure (read-across), Citric acid is not harmful to reproduction.

11.1.8. STOT-single exposure

Based on the available data the classification criteria are not met.

11.1.9. STOT-repeated exposure

Based on the available data the classification criteria are not met.

11.1.10. Aspiration hazard

Based on the available data the classification criteria are not met.

11.1.11. Other information

None

SECTION 12: Ecological information

12.1. Toxicity

Based on the available data the classification criteria are not met.

Diammonium dihydrogen ethylenediaminetetraacetate:

LC50 96h, fish Lepomis macrochirus:> 100 mg/L (read-across)

EC50 48h, invertebrates Daphnia magna:> 100 mg/L (read-across)

EC50 72h, aquatic plants Scenedesmus subspicatus:> 100 mg/L (read-across)

Citric acid:

LC50 48h, fish: 440 mg/L

LC50 24h, invertebrates Daphnia magna: 1535 mg/L

NOAEC 8d, algae: 425 mg/L

12.2. Persistence and degradability

Diammonium dihydrogen ethylenediaminetetraacetate is not readily biodegradable (based on the read-across method). Citric acid is easily biodegradable. (C9-11, ethoxylated alcohols are easily biodegradable (76% in 28 days, EU 301F).

12.3. Bioaccumulation potential

Diammonium dihydrogen ethylenediaminetetraacetate has no potential for bioaccumulation (based on the read-across method). Citric acid - bioaccumulation is not expected.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Does not meet the criteria of PBT and vPvB.

12.6. Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Do not dispose together with municipal solid waste. Prevent the product from being released into sewage system and underground and surface water. Do not dispose in landfill sites. Consider the possibility of utilization. Dispose/recycle the product and the package according to the local regulations concerning environmental protection. Only completely emptied packages may be recycled. Do not mix with other waste.

SECTION 14: Transport information

14.1. UN number

None

14.2. UN proper shipping name

Not subject to.

14.3. Transport hazard class(es)

Not subject to.

14.4. Packing Group

None

14.5. Environmental hazards

The product is not dangerous.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not subject to.

SECTION 15: Regulatory information

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

1272/2008 Regulation of the European Parliament and of the Council (EC) of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

2015/830 / EC Commission Regulation of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

2008/98 Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

15.2. Chemical safety assessment:

Not conducted.

SECTION 16: Other information

The information in this safety data sheet relates only to the described product and is based on our current knowledge, experience and may not be comprehensive. The end user is responsible for the use of product according to the valid regulations.

Version:

1.0

Changes

Not applicable.

Hints concerning training

Train in accordance with valid regulations: safety and health regulations, fire regulations, regulations of packaging, waste regulations especially taking into account health protection, safety and environmental protection.

H-Statements

H302- Harmful if swallowed.

H318- Causes serious eye damage.

H319- Causes serious eye irritation.

H332- Harmful if inhaled.

H373- May cause damage to organs <or state all organs affected>, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively

Explanation of acronyms and abbreviations

Met. Corr. – Substance or mixture corrosive to metals

Acute Tox. – Acute toxicity

Skin Corr. – Skin corrosion

Skin Irrit. – Skin irritation

Eye Dam. – Serious eye damage
Eye Irrit. – Serious eye irritation
Resp. Sens. – Respiratory sensitization
Skin Sens. – Skin sensitization
Muta. – Germ cell mutagenicity
Carc. – Carcinogenicity
Repr. – Reproductive toxicity
STOT SE – Specific target organ toxicity – single exposure
STOT RE – Specific target organ toxicity – repeated exposure
Asp. Tox. – Aspiration hazard
Aquatic Acute – Hazardous to the aquatic environment, acute
Aquatic Chronic – Hazardous to the aquatic environment, chronic
Ozone – Hazardous to the ozone layer
Lact. – Reproductive toxicity, additional category, effect or impact on lactation
TLV-TWA – Threshold limit value- - Time weighted average
TLV-STEL – Threshold limit value - Short-term exposure limit
TLV-C – Threshold limit value - Ceiling limit
PVB – Very Persistent and very Bioaccumulative
PBT – Persistent Bioaccumulative and Toxic
PNEC – Predicted No Effect Concentration
DN(M)EL – Derived No (Minimal) Effect Level
LD50 – Median lethal dose
LC50 – Median lethal concentration
ECX – Concentration showing x % Effect
LOEC – Lowest Observed Effect Concentration
NOEL – NOEL No Observed Effect Level
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG – International Maritime Dangerous Goods Code
ICAO/IATA – International Civil Aviation Organization / International Air Transport Association
ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
UVCB – Substances of Unknown or Variable Composition, Complex reaction products or Biological Materials
Recommended restriction of use
None
Sources used to Safety Data Sheet preparation
Website of the European Chemicals Agency (www.echa.eu), website of the office of Chemical Substances (www.chemikalia.gov.pl), SDS of raw materials.