

Safety data sheet
according to UK REACH (SI 2020/1577) as amended

Printing date 30.01.2025

Version number 5 (replaces version 4)

Revision: 30.01.2025

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

· **1.1 Product identifier**

· **Trade name:** TOTAL ALGAECIDE

· **Registration number** Mixture

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

· **Product category** PC37 Water treatment chemicals

· **Application of the substance / the mixture** Algaecide

· **Uses advised against** Processes involving extreme heat use advised against.

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Total Water Products

Unit 6 Seaway Parade Ind. Estate

Baglan

Port Talbot

SA12 7BR

Tel: 0044 1639 823233

e-mail: info@totalwaterproducts.co.uk

· **Further information obtainable from:** Product safety department.

· **1.4 Emergency telephone number:**

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to GB-CLP**

Acute Tox. 4 H302 Harmful if swallowed.

Eye Dam. 1 H318 Causes serious eye damage.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to GB-CLP** The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS05 GHS07 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Methanamine, N-methyl-, polymer with (chloromethyl)oxirane

copper sulphate pentahydrate

Etidronic acid

· **Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

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H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P280 Wear eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Contains biocidal active substance(s): Methanamine, N-methyl-, polymer with (chloromethyl)oxirane, copper sulphate pentahydrate

· **The Detergents (Amendment) (EU Exit) Regulations 2020 / Labelling for contents**

| | |
|--|-----------|
| phosphonates | ≥5 - <15% |
| preservation agents (Methanamine, N-methyl-, polymer with (chloromethyl)oxirane, copper sulphate pentahydrate) | |

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

* **SECTION 3: Composition/information on ingredients**

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

| | | |
|---|--|------------|
| CAS: 25988-97-0 EC number: 607-843-9 | Methanamine, N-methyl-, polymer with (chloromethyl)oxirane ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); ⚠ Acute Tox. 4, H302 | 25 – 50% |
| CAS: 7758-99-8 EC number: 616-477-9 Index number: 029-023-00-4 | copper sulphate pentahydrate ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); ⚠ Acute Tox. 4, H302 ATE: LD50 oral: 481 mg/kg | 10 – < 25% |
| CAS: 2809-21-4 EINECS: 220-552-8 Reg.nr.: 01-2119519391-53-XXXX | Etidronic acid ⚠ Met. Corr.1, H290; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302 | 3 – 10% |

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

* **SECTION 4: First aid measures**

· **4.1 Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

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If skin irritation continues, consult a doctor.

· **After eye contact:**

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Call for a doctor immediately.

· **Information for doctor:**

Antidote: the use of d-penicillamine as a chelating agent should be determined by a qualified practitioner.

Individuals with Wilson's disease are more susceptible to chronic copper poisoning.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

* **SECTION 5: Firefighting measures**

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO_x)

Chlorine compounds

Sulphur Oxides (SO_x)

Toxic metal oxide smoke

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

· **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

* **SECTION 6: Accidental release measures**

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

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

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Wash the area with plenty of water.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

* **SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling**

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Safety showers and eye wash facilities should be available at the work area.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Protect from frost.

Store in cool, dry conditions in well sealed receptacles.

· **Storage class:** 12

· **7.3 Specific end use(s)** No further relevant information available.

* **SECTION 8: Exposure controls/personal protection**

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**

CAS: 2809-21-4 Etidronic acid

| | | |
|--------|-----------------------------|--|
| Oral | Long-term systemic effects | 1.7 mg/kg bw/day (general population) |
| | Short-term systemic effects | 1.7 mg/kg bw/day (general population) |
| Dermal | Long-term systemic effects | 17 mg/kg bw/day (general population) 34 mg/kg bw/day (worker) |
| | Inhalative | Long-term systemic effects |
| | | 2.95 mg/m ³ (general population) 12 mg/m ³ (worker) |

· **PNECs**

CAS: 2809-21-4 Etidronic acid

| | |
|------------------------|-----------|
| Freshwater | 68 µg/L |
| Marine water | 6.8 µg/L |
| Sewage Treatment Plant | 40 mg/L |
| Sediment (freshwater) | 136 mg/kg |

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| | |
|-------------------------|----------------|
| Sediment (marine water) | 13.6 mg/kg |
| Soil | 10 mg/kg |
| Secondary poisoning | 3.7 mg/kg food |

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Do not eat, drink, smoke or sniff while working.

Storing food in the working area is prohibited.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Ensure that eyewash stations and safety showers are close to the workstation location.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Hand protection**



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· **Body protection:**



Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

· **Environmental exposure controls** Do not allow to enter drains, sewers or watercourses.

· **Risk management measures** The operators shall be instructed adequately.

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* **SECTION 9: Physical and chemical properties**

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

· **General Information**

| | |
|---|-------------------------------|
| · Physical state | Liquid |
| · Colour: | Dark green |
| · Odour: | Mild |
| · Odour threshold: | Not determined. |
| · Melting point/freezing point: | Undetermined. |
| · Boiling point or initial boiling point and boiling range | 100 °C (CAS: 7732-18-5 Water) |
| · Flammability | Not applicable. |
| · Lower and upper explosion limit | |
| · Lower: | Not determined. |
| · Upper: | Not determined. |
| · Flash point: | Not applicable. |
| · Decomposition temperature: | Not determined. |
| · pH at 20 °C | Not determined. |
| · Viscosity: | |
| · Kinematic viscosity | Not determined. |
| · Dynamic: | Not determined. |
| · Solubility | |
| · water: | Fully miscible. |
| · Partition coefficient n-octanol/water (log value) | Not determined. |
| · Vapour pressure at 20 °C: | 23 hPa (CAS: 7732-18-5 Water) |
| · Density and/or relative density | |
| · Density at 20 °C: | 1.190 g/cm ³ |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |

· **9.2 Other information**

| | |
|--|--|
| | NOTE: The physical data presented above are typical values and should not be construed as a specification. |
| · Appearance: | |
| · Form: | Fluid |
| · Important information on protection of health and environment, and on safety. | |
| · Ignition temperature: | Product is not self-igniting. |
| · Explosive properties: | Product does not present an explosion hazard. |
| · Solvent content: | |
| · VOC (EC) | 0.00 % |
| · Change in condition | |
| · Evaporation rate | Not determined. |

· **Information with regard to physical hazard classes**

| | |
|--|------|
| · Explosives | Void |
| · Flammable gases | Void |
| · Aerosols | Void |
| · Oxidising gases | Void |
| · Gases under pressure | Void |
| · Flammable liquids | Void |
| · Flammable solids | Void |
| · Self-reactive substances and mixtures | Void |
| · Pyrophoric liquids | Void |

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| | |
|--|------|
| · Pyrophoric solids | Void |
| · Self-heating substances and mixtures | Void |
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

* **SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidising agents.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Chlorine compounds
Nitrogen oxides (NO_x)
Sulphur oxides (SO_x)
Metal oxide

* **SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

· **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)

| | | |
|------|------|---------------|
| Oral | LD50 | 1,733.7 mg/kg |
|------|------|---------------|

CAS: 25988-97-0 Methanamine, N-methyl-, polymer with (chloromethyl)oxirane

| | | |
|--------|------|------------------------|
| Oral | LD50 | 1,672 mg/kg (rat) |
| Dermal | LD50 | > 2,000 mg/kg (rabbit) |

CAS: 7758-99-8 copper sulphate pentahydrate

| | | |
|--------|------|------------------------|
| Oral | LD50 | 481 mg/kg (ATE) |
| | | 481 mg/kg (rat) |
| Dermal | LD50 | > 2,000 mg/kg (rabbit) |

CAS: 2809-21-4 Etidronic acid

| | | |
|--------|------|------------------------|
| Oral | LD50 | 1,878 mg/kg (rat) |
| Dermal | LD50 | > 5,000 mg/kg (rabbit) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** Prolonged or repeated skin contact may irritate and cause dermatitis.

· **Additional toxicological information:**

Chronic copper poisoning in man is recognised in the form of Wilson's disease. Individuals with Wilson's disease are unable to metabolise copper. Thus, copper accumulates in various tissues and may result in liver, kidney and brain damage.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients are listed.

* **SECTION 12: Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 25988-97-0 Methanamine, N-methyl-, polymer with (chloromethyl)oxirane

EC50 (96 h) | 0.14 mg/l (Bacteria)

CAS: 2809-21-4 Etidronic acid

EC50 (96 h) | 527 mg/l (Bacteria)

- **12.2 Persistence and degradability** The organic portion of the product is biodegradable.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
 Very toxic for aquatic organisms
 Also poisonous for fish and plankton in water bodies.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
 Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.

* **SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Recommended Hierarchy of Controls:

- Minimise waste;

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- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Uncleaned packaging:**

· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.





Container remains hazardous when empty. Continue to observe all precautions.

Disposal must be made according to official regulations.

Containers, even those that are “empty,” may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

* **SECTION 14: Transport information**

| | |
|---|---|
| · 14.1 UN number or ID number · ADR/RID/ADN, IMDG, IATA | UN3082 |
| · 14.2 UN proper shipping name · ADR/RID/ADN · IMDG · IATA | UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Etidronic acid) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Etidronic acid, Methanamine, N-methyl-, polymer with (chloromethyl)oxirane, copper sulphate pentahydrate), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Etidronic acid) |
| · 14.3 Transport hazard class(es) · ADR/RID/ADN | |
|   | |
| · Class · Label | 9 (M6) Miscellaneous dangerous substances and articles. 9 |
| · IMDG, IATA | |
|   | |
| · Class · Label | 9 Miscellaneous dangerous substances and articles. 9 |

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| | |
|---|--|
| · 14.4 Packing group · ADR/RID/ADN, IMDG, IATA | III |
| · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR/RID/ADN): · Special marking (IATA): | Product contains environmentally hazardous substances: Polyquaternary ammonium compound, copper sulphate pentahydrate Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) |
| · 14.6 Special precautions for user · Hazard identification number (Kemler code): · Hazchem Code: · EMS Number: · Stowage Category | Warning: Miscellaneous dangerous substances and articles. 90 •3Z F-A,S-F A |
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · Transport/Additional information: | Amounts up to 5kg or 5L per single or inner package are not regulated according to ADR/RID SP 375, IMDG 2.10.2.7 and IATA SP A197. |
| · ADR/RID/ADN · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code | 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 (-) |
| · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETIDRONIC ACID), 9, III |

* **SECTION 15: Regulatory information**

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

| | |
|---|-------------------------------------|
| · Regulated explosives precursors | None of the ingredients are listed. |
| · Regulated poisons | None of the ingredients are listed. |
| · Reportable explosives precursors | None of the ingredients are listed. |

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· **Reportable poisons**

None of the ingredients are listed.

· **Control Of Major Accident Hazards Regulations 2015 (COMAH)**

· **Named dangerous substances - ANNEX I** None of the ingredients are listed.

· **COMAH category** E1

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **National regulations:**

· **Information about limitation of use:**

| Class | Share in % |
|-------|------------|
| III | 13.2 |

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Relevant phrases**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **Training hints**

This product should only be handled by workers who have received sufficient training in the safe handling and use of chemical products.

· **Department issuing SDS:** Product safety department.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Met. Corr.1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· * **Data compared to the previous version altered.**