

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

- **1.1 Product identifier**
- **Trade name:** VIAN SPA CARTRIDGE CLEANER
- **Article number:** CAC2-Ver.5
- **Registration number** Mixture
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Application of the substance / the mixture**
Cleaning agent for swimming pool and hot tub filters
- **Uses advised against**
Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).
Any use involving aerosol formation or vapour release in excess of the assigned WEL where workers are exposed without suitable RPE.
The product is intended exclusively for industrial and professional use.
- **1.3 Details of the supplier of the safety data sheet**
Vortex Distribution, Unit 7 Pioneer Park, Portfield Road, Hilsea,
Portsmouth, PO3 5GF, +44 02392 454455
- **Manufacturer/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 Regulation (EC) No 1272/2008**



corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms** GHS05
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Tetrasodium ethylenediaminetetraacetate
- **Hazard statements**
H318 Causes serious eye damage.
- **Precautionary statements**
P260 Do not breathe mist/vapours/spray.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 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.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

	Etidronic acid, neutralised*	2.5 – < 10%
	⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	
	Inorganic base, neutralised*	2.5 – < 10%
	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 64-02-8 EINECS: 200-573-9 Reg.nr.: 01-2119486762-27-XXXX	Tetrasodium ethylenediaminetetraacetate ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	3 – 10%

- **Additional information:**
- *Equilibrium of Ionic pairs in accordance with UK REACH Annex V, 4.
- 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.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
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.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:** Treat symptomatically and supportively.
- **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

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

In case of fire, the following can be released:

Nitrogen oxides (NO_x)
 Phosphorous oxides
 Carbon monoxide (CO)
 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.

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SECTION 6: Accidental release measures

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

Ensure adequate ventilation
 Particular danger of slipping on leaked/spilled product.
 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 in the undiluted form.

· **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.
 Ensure adequate ventilation.

· **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.

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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.
 Safety showers and eye wash facilities should be available at the work area.
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.

· **Information about fire - and explosion protection:** Keep respiratory protective device available.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Do not store in aluminium, galvanised or copper containers.
 Prevent any seepage into the ground.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.
 Store away from oxidising agents.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.
 Store in a bunded area.

· **Storage class:** 8 B

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

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SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.
- **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

64-02-8 Tetrasodium ethylenediaminetetraacetate

Oral	DNEL Long-term systemic effects	25 mg/kg bw/day (general population)
Inhalative	DNEL Long-term systemic effects	1.5 mg/m ³ (worker)
	DNEL Short-term systemic effects	3 mg/m ³ (worker)
	DNEL Short-term local effects	1.2 mg/m ³ (general population)
		3 mg/m ³ (worker)
	DNEL Long-term local effects	600 µg/m ³ (general population)
		1,500 µg/m ³ (worker)

· PNECs

64-02-8 Tetrasodium ethylenediaminetetraacetate

PNEC Freshwater	2.83 mg/L
PNEC Freshwater - Intermittent releases	1 mg/L
PNEC Marine water	283 µg/L
PNEC Marine Water - Intermittent releases	1 mg/L
PNEC Sewage Treatment Plant	50 mg/L
PNEC Soil	1.1 mg/kg

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
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.
- **Protection of hands:**



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.

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· Eye 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).

Goggles recommended during refilling

· Body protection:



Impervious protective clothing

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

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Colour: Colourless

· **Odour:** Mild

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 9.2

· Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not self-igniting.

· **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not determined.

· **Density at 20 °C:** 1.11 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· Solubility in / Miscibility with water:

Fully miscible.

· **Partition coefficient: n-octanol/water:** Not determined.

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

· Solvent content:

VOC (EC) 0.00 %

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· 9.2 Other information

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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**
Reacts with metals forming hydrogen.
Reacts with acids.
- **10.4 Conditions to avoid** Do not mix with other chemical formulations in their concentrated form.
- **10.5 Incompatible materials:**
Strong acids.
Finely powdered metals.
Strong oxidising agents.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Phosphorus oxides (e.g. P₂O₅)
Nitrogen oxides (NO_x)
Toxic metal oxide smoke

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	5,832.7 mg/kg
Inhalative	LC50/4 h	295.7 mg/l (rat)

64-02-8 Tetrasodium ethylenediaminetetraacetate

Oral	LD50	1,913 mg/kg (rat)
Dermal	LD50	> 5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (rat) (ATE)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** The organic portion of the product is biodegradable.

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- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Recommended Hierarchy of Controls:
 - Minimise waste;
 - 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:**
 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.

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SECTION 14: Transport information

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|--|-----------------|
| · 14.1 UN-Number | Void |
| · ADR/RID/ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | Void |
| · ADR/RID/ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | Void |
| · ADR/RID/ADN, ADN, IMDG, IATA | Void |
| · Class | Void |
| · 14.4 Packing group | Void |
| · ADR/RID/ADN, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | No |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

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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 is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

1310-58-3	Potassium hydroxide	17% of total caustic alkalinity
1310-73-2	Sodium hydroxide	12% of total caustic alkalinity

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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.

- **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
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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

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