

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** Lo-Chlor No More Metal
- **Application of the substance / the preparation** Sequestriant for swimming pools and spas
- **Manufacturer/Supplier:**
Total Water Products
Alrewas House
Main Street
Alrewas
Burton on Trent
Staffordshire
DE13 7ED
UK

Tel: (0044) 1283 792600
Fax No: (0044) 1283 792041
e-mail: technical@totalwaterproducts.co.uk
- **Further information obtainable from:** Product safety department.
- **Information in case of emergency:** Tel: (0044) 1283 792600

2 Hazards identification

- **Hazard description:**




C Corrosive

- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 34 Causes burns.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization:**
- **Identification number(s)**
- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

2809-21-4	1-Hydroxyethylidene-1, 1-diphosphonic acid	 C; R 34-41	50-100%
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- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

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- **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.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:** Treat symptomatically and supportively.

5 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **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 oxidizing agents.
Store away from metals.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from frost.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 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.
- **Additional information:** The lists valid during the making were used as basis.

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- **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

- **General protective and hygienic measures:**

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.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

- **Respiratory protection:** Not required.

- **Protection of hands:**



Protective gloves

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 protection:**



Tightly sealed goggles

- **Body protection:** Acid resistant protective clothing

9 Physical and chemical properties

- **General Information**

Form:	Liquid
Colour:	Light yellow
Odour:	Mild

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

- **Flash point:** Not applicable.

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Vapour pressure at 20°C:** 23 hPa

- **Density at 20°C:** 1.2 g/cm³

- **Solubility in / Miscibility with water:** Fully miscible.

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· **pH-value (10 g/l) at 20°C:** approx. 2

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Materials to be avoided:**
Strong oxidising agents.
Strong bases.
Finely powdered metals.
- **Dangerous reactions**
Reacts with various metals.
Strong exothermic reaction with alkalis.
Reacts with sulphides and sulphites to produce toxic gases.
- **Dangerous decomposition products:**
Carbon monoxide and carbon dioxide
Phosphorus oxides (e.g. P₂O₅)
Phosphine, inorganic acids, oxides of phosphorus.

11 Toxicological information

- **Acute toxicity:**

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

2809-21-4 1-Hydroxyethylidene-1, 1-diphosphonic acid

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** Product is not expected to bioaccumulate.
- **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralized.
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.

13 Disposal considerations

- **Product:**
- **Recommendation**
Contact waste processors for recycling information.

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

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.

- **European waste catalogue**

Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- **Uncleaned packaging:**

- **Recommendation:** Container remains hazardous when empty. Continue to observe all precautions.

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

14 Transport information

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** 8 Corrosive substances.

- **UN-Number:** 1760

- **Packaging group:** III

- **Description of goods:** 1760 CORROSIVE LIQUID, N.O.S.

- **Maritime transport IMDG:**

- **IMDG Class:** 8

- **UN Number:** 1760

- **Packaging group:** III

- **Marine pollutant:** No

- **Proper shipping name:** CORROSIVE LIQUID, N.O.S.

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 8

- **UN/ID Number:** 1760

- **Packaging group:** III

- **Proper shipping name:** CORROSIVE LIQUID, N.O.S.

15 Regulatory information

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**

C Corrosive

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

1-Hydroxyethylidene-1, 1-diphosphonic acid

- **Risk phrases:**

34 Causes burns.

- **Safety phrases:**

2 Keep out of the reach of children.

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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.

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· Relevant R-phrases

34 Causes burns.

41 Risk of serious damage to eyes.

· Department issuing MSDS: Product safety department.

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