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**SAFETY DATA SHEET**

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

## 1.1 Product identifier

- Datasheet Number: SP625 Version 2.0.0
- Product Name: Stain and Scale Inhibitor
- Contains: Etidronic acid

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

- Use of the substance/mixture: Pool / spa treatment
- Use advised against: Processes involving extreme heat

## 1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Total Pool Chemicals Ltd
- Address of Supplier: Unit 1-5 , Pool Bank Business Park  
High Street, Tarvin  
Chester  
UK  
CH3 8JH
- Telephone: +44 (0)1829 740290
- Email: sales@totalpool.co.uk

## 1.4 Emergency telephone number

- +44 (0)1829 740290 (Office Hours)

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**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Met. Corr. 1, H290; Acute Tox. 4, H302; Eye Dam. 1, H318
- Additional information: For full text of Hazard- and EU Hazard-statements: see section 16

## 2.2 Label elements



- Signal Word: Danger
- Hazard statements
  - H290 - May be corrosive to metals.
  - H302 - Harmful if swallowed.
  - H318 - Causes serious eye damage.
- Precautionary statements
  - P102 - Keep out of reach of children.
  - P264 - Wash hands thoroughly after handling.
  - P280 - Wear eye/face protection
  - P301+P312 - IF SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.
  - P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
  - P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

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**SECTION 2: Hazards identification (....)**

## 2.3 Other hazards

- Not a PBT according to REACH Annex XIII
  - Not a vPvB according to REACH Annex XIII
  - Does not contain any substances with endocrine disrupting properties
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**SECTION 3: Composition/information on ingredients**

## 3.1 Substances

- Not applicable

## 3.2 Mixtures

- Contains the following hazardous ingredients or ingredients with a workplace exposure limit:

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	SCL/ M-Factor/ ATE	REACH Registration Number	WEL/ OEL
Etidronic acid; (1-hydroxyethane-1,1-diy)bis(phosphonic acid)	>50 - ≤100%	2809-21-4	220-552-8	Met. Corr. 1, H290 Acute Tox. 4, H302 Eye Dam. 1, H318	-	01-2119510391-53-XXXX	No

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**SECTION 4: First aid measures**

Rescuers should put on approved personal protective equipment (PPE) before administering first aid

Rescuers should take suitable precautions to avoid becoming casualties themselves

## 4.1 Description of first aid measures

- Contact with eyes
  - If substance has got into eyes, immediately wash out with plenty of water for several minutes
  - Irrigate eyes thoroughly whilst lifting eyelids
  - Remove contact lenses, if present and easy to do. Continue rinsing.
  - Get immediate medical advice/attention.
- Contact with skin
  - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water
  - Contaminated clothing should be laundered before reuse
  - If skin irritation occurs: Get medical advice/attention.
- Ingestion
  - Rinse mouth with water (do not swallow)
  - Give plenty of water to drink
  - Do NOT induce vomiting.
  - Get immediate medical advice/attention.
- Inhalation
  - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - IF exposed or concerned: Get medical advice/attention.

## 4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
    - Causes redness and swelling
    - May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
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**SECTION 4: First aid measures (....)**

- Contact with skin
  - Prolonged or repeated exposure may cause irritation
  - May cause dermatitis
- Ingestion
  - Harmful if swallowed.
  - May cause nausea/vomiting
- Inhalation
  - May cause respiratory tract irritation.

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

- Treat symptomatically

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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media: In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide
- Unsuitable extinguishing media: No information available

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

- May give off corrosive gases or vapours
- Contact with metals liberates flammable gas
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include nitrogen and carbon oxides
- Decomposition products may include phosphorus compounds and phosphine

**5.3 Advice for firefighters**

- Keep container(s) exposed to fire cool, by spraying with water
- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- No action shall be taken involving any personal risk or without suitable training
- Only trained and authorised personnel should carry out emergency response
- Personal precautions for non-emergency personnel: Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear self-contained breathing apparatus (SCBA); Wear suitable protective clothing, eye/face protection and gloves; PVC are recommended

**6.2 Environmental precautions**

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

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

- Collect as much as possible in clean container for reuse or disposal
- Cover drains to prevent the product from entering the environment.
- Absorb spillage in inert material and shovel up

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**SECTION 6: Accidental release measures (....)**

- Place in appropriate container
- Seal containers and label them
- Remove contaminated material to safe location for subsequent disposal
- Seek expert advice for removal and disposal of all contaminated materials and wastes
- Flush spill area with copious amounts of water

## 6.4 Reference to other sections

- See section(s): 7, 8 & 13
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**SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

- Use only in well ventilated areas
- Avoid formation of spray/mist/aerosols
- Avoid contact with skin and eyes
- Avoid breathing vapours or spray
- Wear protective clothing as per section 8
- Do not eat, drink or smoke when using this product.
- Use good personal hygiene practices
- Wash thoroughly after handling.
- Contaminated clothing should be laundered before reuse
- Ensure eyewash stations and safety showers are nearby

## 7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place
- Protect from frost
- Keep in an area equipped with impermeable flooring.
- Keep container tightly closed.
- Keep away from food, drink and animal feedingstuffs
- Avoid contact with metal
- Storage containers should not be made from aluminium
- Storage containers should not be made from galvanised metals
- Incompatible with alkalis (strong bases)
- Incompatible with oxidizing substances

## 7.3 Specific end use(s)

- Pool / spa treatment
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**SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.  
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
  - Etidronic acid
    - DNEL (inhalational) 12 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects
    - DNEL (dermal) 34 mg/kg (bw/day) Industry, Long Term, Systemic Effects
    - DNEL (inhalational) 2.95 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects
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## SECTION 8: Exposure controls/personal protection (....)

DNEL (dermal) 17 mg/kg (bw/day) Consumer, Long Term, Systemic Effects  
 DNEL (oral) 1.7 mg/kg (bw/day) Consumer, Long Term, Systemic Effects  
 DNEL (oral) 1.7 mg/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects  
 PNEC aqua (freshwater) 68 µg/L  
 PNEC aqua (marine water) 6.8 µg/L  
 PNEC (STP) 40 mg/L  
 PNEC sediment (freshwater) 136 mg/kg  
 PNEC sediment (marine water) 13.6 mg/kg  
 PNEC terrestrial (soil) 10 mg/kg  
 PNEC secondary poisoning (food) 3.7 mg/kg

### 8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls
  - Ensure adequate ventilation
  - Engineering controls are not required for normal handling
- Respiratory protection
  - No respiratory protection is needed during normal handling
- Eye/face protection
  - Wear goggles giving complete eye protection approved to standard EN 166.
  - If risk of splashing, wear face-shield approved to standard EN 166 1B39N
- Skin protection
  - Wear suitable protective clothing
  - Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
  - The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
  - PVC are recommended
- Thermal hazards
  - Not applicable
- Hygiene measures
  - Do not eat, drink or smoke when using this product.
  - Use good personal hygiene practices
  - Wash thoroughly after handling.
  - Contaminated work clothing should not be allowed out of the workplace.
  - Contaminated clothing should be laundered before reuse
  - Ensure eyewash stations and safety showers are nearby
- Environmental exposure controls
  - Do not empty into drains
  - Do not allow to penetrate the ground/soil.



## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state: Liquid
- Colour: Light yellow
- Odour: No information available

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**SECTION 9: Physical and chemical properties (....)**

- Melting point/freezing point: -40 °C
- Boiling point or initial boiling point and boiling range: 125 °C
- Flammability: Not flammable; Does not support combustion
- Lower and upper explosion limit: Not applicable
- Flash point: Not applicable
- Auto-ignition temperature: No information available
- Decomposition temperature: No information available
- pH: Not determined
- Kinematic viscosity: Not applicable
- Solubility: Miscible with water; Solubility in water: 690 g/L @ 20 °C (etidronic acid)
- Partition coefficient n-octanol/water (log value): Log Pow: -3.5
- Vapour pressure: 23 hPa @ 20 °C
- Density and/or relative density: 1.45 g/cm<sup>3</sup>
- Relative vapour density: No information available
- Particle characteristics: Not applicable

## 9.2 Other information

- Attacks many metals releasing highly flammable gas (hydrogen)

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**SECTION 10: Stability and reactivity**

## 10.1 Reactivity

- No information available

## 10.2 Chemical stability

- Considered stable under normal conditions

## 10.3 Possibility of hazardous reactions

- Reacts with metals liberating flammable gas

## 10.4 Conditions to avoid

- Avoid freezing
- Keep away from heat and sources of ignition

## 10.5 Incompatible materials

- Incompatible with alkalis (strong bases)
- Incompatible with oxidizing substances

## 10.6 Hazardous decomposition products

- Decomposition products may include nitrogen and carbon oxides
- Decomposition products may include phosphorus compounds and phosphine

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**SECTION 11: Toxicological information**

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

- Acute Toxicity
  - Harmful if swallowed.
  - Classification based on calculation and concentration thresholds

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**SECTION 11: Toxicological information (....)**

## Substances

Chemical Name	LD <sub>50</sub> (oral, rat)	LC <sub>50</sub> (inhalation, rat)	LD <sub>50</sub> (dermal, rabbit)
Etidronic acid	1 878 mg/kg	No data available	5 000 mg/kg

- Skin corrosion/irritation  
Based on available data, the classification criteria are not met
- Serious eye damage/irritation  
Causes serious eye damage.  
Classification based on calculation and concentration thresholds
- Respiratory or skin sensitisation  
Based on available data, the classification criteria are not met
- Germ cell mutagenicity  
No evidence of mutagenic effects
- Carcinogenicity  
No evidence of carcinogenic effects
- Reproductive toxicity  
No evidence of reproductive effects

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Etidronic acid	112 mg/kg bw/day (Effect on fertility) 112 mg/kg bw/day (Effect on developmental toxicity)	No data available	No data available

- Specific target organ toxicity (STOT) - single exposure  
Based on available data, the classification criteria are not met
- Specific target organ toxicity (STOT) - repeated exposure  
Based on available data, the classification criteria are not met

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Etidronic acid	34 mg/kg bw/day	No data available	No data available

- Aspiration hazard  
Based on available data, the classification criteria are not met
- Contact with eyes  
Causes redness and swelling  
May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
- Contact with skin  
Prolonged or repeated exposure may cause irritation  
May cause dermatitis
- Ingestion  
Harmful if swallowed  
May cause nausea/vomiting
- Inhalation  
May cause respiratory tract irritation.

## 11.2 Information on other hazards

- Does not contain any substances with endocrine disrupting properties

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Based on available data, the classification criteria are not met

#### Substances

Chemical Name	LC <sub>50</sub> (fish)	EC <sub>50</sub> (aquatic invertebrates)	EC <sub>50</sub> (aquatic algae)
Etidronic acid	(4 days) 195 - 2 180 mg/L	(48 h) 527 - 1 770 mg/L	No data available

### 12.2 Persistence and degradability

- Not readily biodegradable

#### Substances

Chemical Name	Biodegradation
Etidronic acid	Under test conditions no biodegradation observed (100%) Half-life in freshwater 10 days @ 12 °C Half-life in freshwater sediment 10 days @ 12 °C Half-life in soil 10 days @ 12 °C

### 12.3 Bioaccumulative potential

- Bioaccumulation is not expected

#### Substances

Chemical Name	Bioaccumulation Factor (BCF)	Log Kow
Etidronic acid	No data available	(Log Pow) -3.5

### 12.4 Mobility in soil

- Soluble in water

#### Substances

Chemical Name	Adsorption/desorption
Etidronic acid	Koc 16 610 L/kg

### 12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

### 12.6 Endocrine disrupting properties

- No information available

### 12.7 Other adverse effects

- No information available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- This material and its container must be disposed of as hazardous waste
- Do not reuse empty containers without commercial cleaning or reconditioning

### 13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
- Hazardous Property Code(s): HP 4 Irritant; HP 6 Acute Toxicity

**SECTION 14: Transport information**

## 14.1 UN number or ID number

- UN No.: 3265

## 14.2 UN proper shipping name

- Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Etidronic acid)

## 14.3 Transport hazard class(es)

- Hazard Class: 8

## 14.4 Packing group

- Packing Group: III

## 14.5 Environmental hazards

- Not applicable

## 14.6 Special precautions for user

- No information available

## 14.7 Maritime transport in bulk according to IMO instruments

- Not applicable

## 14.8 Road/Rail (ADR/RID)

- Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Etidronic acid)
- ADR UN No.: 3265
- ADR Hazard Class: 8
- ADR Packing Group: III
- Tunnel Code: (E)

## 14.9 Sea (IMDG)

- Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Etidronic acid)
- IMDG UN No.: 3265
- IMDG Hazard Class: 8
- IMDG Pack Group.: III

## 14.10 Air (ICAO/IATA)

- Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Etidronic acid)
- ICAO UN No.: 3265
- ICAO Hazard Class: 8
- ICAO Packing Group: III

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**SECTION 15: Regulatory information**

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

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 (as amended by Regulation (EU) 2020/878) and UK REACH
- The GB Classification, Labelling and Packaging Regulation (GB CLP) applies in Great Britain
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe

15.2 Chemical safety assessment

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**SECTION 15: Regulatory information (....)**

- A REACH chemical safety assessment has been carried out
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**SECTION 16: Other information**

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 2.0.0. Revised April 2021.

Changes made: Updated and revised to conform to latest version of REACH Annex II

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

- Met. Corr. 1, H290: Classification based on bridging principles of substantially similar mixtures
- Acute Tox. 4, H302: Classification based on calculation and concentration thresholds
- Eye Dam. 1, H318: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H290: May be corrosive to metals
- H302: Harmful if swallowed
- H318: Causes serious eye damage

**Acronyms**

- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC<sub>50</sub>: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC<sub>50</sub>: Lethal Concentration, 50%
- LD<sub>50</sub>: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SCL: Specific Concentration Limit
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---

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