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

1.1 **Product Identifier**

Product Name :	Stain and Scale Inhibitor
Datasheet Number :	SDS056
Unique Formula Identifier:	ET40-709S-5004-FFCE

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

Application of the substance / the mixture	Concentrated antiscalant for swimming pool and hot tub water.
Identified Use(s) Uses advised against	Processes involving extreme heat use advised against.

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

Name of Supplier	Plastica Ltd
Address of Supplier	Perimeter House, Napier Road St Leonards-on-Sea, East Sussex TN38 9NY, United Kingdom
Telephone	+44 (0) 1424 857857
E-mail (competent person)	info@plasticapools.net

1.4 **Emergency Telephone Number**

Emergency Phone No	0800 043 0891 (Technical) 24 Hours a day 0800 043 0892 (Emergency)
Languages Spoken	English

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

GHS05

Met. Corr.1	H290 May be corrosive to metals
Eye Irrit.2	H319 Causes serious eye irritation

2.2 **Label elements** According to Regulation (EC) No. 1272/2008 (CLP)

Hazard Pictograms	GHS05
Signal Word(s)	Warning
Hazard Statement(s)	H290 May be corrosive to metals. H319 Causes serious eye irritation
Precautionary statements	
P234	Keep only in original packaging.
P264	Wash thoroughly after handling.
P280	Wear eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.2 cont..

P337+P313	If eye irritation persists: Get medical advice/attention.
P406	Store in a corrosion resistant container / container with a resistant inner liner.

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 multifunction additions.

Dangerous components:		
CAS: 6419-19-8 EINECS: 229-146-5 Reg.nr.: 01-2119487988-08-XXXX	nitrilotrimethylenetris(phosphonic acid) Met. Corr.1, H290; Eye Irrit. 2, H319	25 – 50%
CAS: 13598-36-2 EINECS: 237-066-7 Index number: 015-157-00-0 Reg.nr.: 01-2119488030-46-XXXX	Skin Corr. 1A, H314; Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25% Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	2.5 – < 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.
After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Immediately rinse with water. 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:	CO_2, powder or water spray. Fight larger fires with water spray. Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable Extinguishing Media:	Water with full jet

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

Reacts with light metals in the presence of water, releasing hydrogen.
In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Phosphorous oxides

5.3 **Advice for Firefighters :**

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.
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.
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.
Lime slurry can be used to neutralize material (e.g. 10 - 50% potassium carbonate solution or 10 - 30% sodium carbonate solution).
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**

Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.
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

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:

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

Information about storage in one common storage facility:

Store away from oxidising agents.
Store away from metals

Further information about storage conditions:

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

Storage class: 12

7.3 **Specific end use(s)**

Surface active agent, plasticizer, stabiliser, intermediate(s), bleaching agent, complexing agent, ccrrosion inhibitors, anti-scalant.

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: 6419-19-8 nitrilotrimethylenetris(phosphonic acid)		
Oral	Long-term systemic effects	1.38 mg/kg bw/day (general population)
	Short-term systemic effects	1.38 mg/kg bw/day (general population)
Dermal	Long-term systemic effects	1.38 mg/kg bw/day (general population) 2.75 mg/kg bw/day (worker)
	Short-term systemic effects	1.38 mg/kg bw/day (general population) 2.75 mg/kg bw/day (worker)
Inhalative	Long-term systemic effects	2.39 mg/m³ (general population) 9.7 mg/m³ (worker)
	Short-term systemic effects	2.39 mg/m³ (general population) 9.7 mg/m³ (worker)

8.1 cont..

CAS: 13598-36-2 phosphorous acid		
Oral	Long-term systemic effects	420 µg/kg bw/day (general population)
Dermal	Long-term systemic effects	420 µg/kg bw/day (general population) 830 µg/kg bw/day (worker)
Inhalative	Long-term systemic effects	720 µg/m³ (general population) 2,940 µg/m³ (worker)

PNECs	
CAS: 6419-19-8 nitrilotrimethylenetris(phosphonic acid)	
Freshwater Marine water Sewage Treatment Plant Sediment (freshwater) Sediment (marine water) Soil Secondary poisoning	400 – 460 µg/L 40 – 46 µg/L 20 mg/L 150 – 603 mg/kg 15 – 60 mg/kg 4.73 – 244 mg/kg 170 mg/kg food
CAS: 13598-36-2 phosphorous acid	
Freshwater Freshwater - Intermittent releases Marine water	153 µg/L 1.53 mg/L 15.3 µg/L

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

8.2 **Exposure controls**

Personal protective equipment:

General protective and hygienic measures:

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.
Do not eat or drink while working.
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

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.

8.2 cont..

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 conforming to EN166.

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.

SECTION 9 : Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

General Information	
Appearance:	
Form:	Fluid
Colour:	Clear
Odour:	Mild
Odour threshold:	Not determined.
Melting point/freezing point:	-12 °C
Boiling point or initial boiling point and boiling range:	>105 °C
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	2 (1%)
Viscosity:	
Kinematic viscosity at 20 °C	11 mm²/s
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient	
n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	1.35 g/cm³
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.

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.

9.2 cont..

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
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:	May be corrosive to metals.
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 bases.
Strong acids and oxidising agents.

10.6 **Hazardous decomposition products:** — Phosphorus oxides (e.g. P2O5)
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide
Phosphine

SECTION 11 : Toxicological Information

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

Acute toxicity — Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
ATE (Acute Toxicity Estimates)		
Oral	LD50	7,500 – 50,000 mg/kg (rat)

11.1 cont..

CAS: 6419-19-8 nitrilotrimethylenetris(phosphonic acid)		
Oral Dermal	LD50 LD50	> 2,000 mg/kg (rat) > 5,000 mg/kg (rabbit)
CAS: 13598-36-2 phosphorous acid		
Oral	LD50	300 – 2,000 mg/kg (rat)

Primary irritant effect:
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Causes serious eye irritation.
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:
ROUTES OF EXPOSURE: Can be absorbed into the body by inhalation and by ingestion.

11.2 **Information on other hazards**

Endocrine disrupting properties: None of the ingrediensts are listed.

SECTION 12 : Ecological Information

12.1 **Toxicity**

Aquatic toxicity:	
CAS: 6419-19-8 nitrilotrimethylenetris(phosphonic acid)	
EC50 (96 h)	297 mg/l (Bacteria)
CAS: 13598-36-2 phosphorous acid	
EC50 (96 h)	> 1,000 mg/l (Bacteria)

12.2 **Persistence and degradability** The organic portion of the product is biodegradable.

12.3 **Bioaccumulative potential** Contains components with the potential 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**
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.

SECTION 13 : Disposal Considerations

13.1 **Waste treatment methods**

Recommendation

Recommended Hierarchy of Controls:
Minimize waste;
Reuse if not contaminated;
Recycle, if possible; or
Safe disposal (if all else fails).
Must not be disposed together with household rubbish.
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.
Disposal must be made according to official regulations.
Container remains hazardous when empty. Continue to observe all precautions.
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**

ADR, ADN, IMDG, IATA UN3265

14.2 **UN proper shipping name**

ADR/RID/ADN UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (nitrilotrimethylenetris(phosphonic acid), PHOSPHOROUS ACID)

IMDG, IATA CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (nitrilotrimethylenetris(phosphonic acid), PHOSPHOROUS ACID)

14.3 **Transport hazard class(es)**

ADR, RID, ADN
Class 8 (C9) Corrosive substances

14.4 **Packing group**

ADR, IMDG, IATA III

14.5 **Environmental Hazards**

Marine Pollutant No

14.6 **Special precautions for user** Warning: Corrosive substances.

Hazard identification number (Kemler code):	80
Hazchem Code:	2X
EMS Number:	F-A,S-B
Segregation groups	(SGG1) Acids
Stowage Category	A
Stowage Code	SW2 Clear of living quarters.

14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable
	Transport/Additional information:	
	ADR/RID/ADN	
	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
	Transport category	3
	Tunnel restriction code	E
	IMDG	
	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
	UN "Model Regulation":	UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(NITRILOTRIMETHYLENETRIS(PHOSPHONIC ACID), PHOSPHOROUS ACID), 8, 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
Reportable poisons:	None of the ingredients are listed

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.

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.
H314: Causes severe skin burns and eye damage. H315 Causes skin irritation.
H318: Causes serious eye damage. H319 Causes serious eye irritation.

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

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

Section 16 cont..

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
Skin Corr. 1A: Skin corrosion/irritation – Category 1A Eye Irrit. 2: Serious eye damage/eye irritation – Category 2