

# SAFETY DATA SHEET

Revision date 2015-03-11

Revision number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product name** FOSTEX® S

### Other means of identification

**Product code** 1306D  
**Synonyms** Scale inhibitor and corrosion inhibitor component

### Recommended use of the chemical and restrictions on use

**Recommended use [RU]** No information available  
**Uses advised against** No information available

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

**Supplier** GEO Specialty Chemicals, Inc.  
701 Wissahickon Avenue  
Cedartown, GA 30125  
Phone: 1-770-748-1200  
Hours: Monday-Friday 9:00-5:00 EST (Eastern Standard Time)

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC: (800) 424-9300  
Outside USA - 00 1 (703) 527-3887 collect calls accepted

**Contact Point** safety-data-sheet-fp@geosc.com

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

<b>Skin corrosion/irritation</b>	Category 1
<b>Serious eye damage/eye irritation</b>	Category 1
<b>Corrosive to metals</b>	Category 1

### GHS Label elements, including precautionary statements

#### EMERGENCY OVERVIEW

<b>Physical state</b> liquid	<b>Color</b> dark brown	<b>Appearance</b> clear	<b>Odor</b> pungent
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**DANGER****Hazard statements**

Causes severe skin burns and eye damage  
May be corrosive to metals

**Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Keep only in original container

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
Absorb spillage to prevent material damage

**Precautionary Statements - Storage**

Store locked up  
Store in corrosive resistant container with a resistant inner liner

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

- Not applicable

**Unknown acute toxicity**

- 43 - 48% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	weight-%	TRADE SECRET
Polyaminomethylene Phosphonic Acid	PROPRIETARY	43 - 48%	*
Phosphonic Acid	13598-36-2	< 6%	*
Hydrochloric Acid	7647-01-0	< 8%	--
Water	7732-18-5	< 55%	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret

## 4. FIRST AID MEASURES

### First Aid Measures

#### **Eye contact**

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical advice immediately.

#### **Skin contact**

Wash with plenty of soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse and discard footwear which cannot be decontaminated. Seek immediate medical attention.

#### **Ingestion**

Do not induce vomiting. Give large amounts of water followed by milk if available. If vomiting should occur spontaneously, keep airway clear. Get medical attention. Never give anything by mouth to an unconscious person.

#### **Inhalation**

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

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

#### **Acute effects**

Corrosive to all tissues contacted.

#### **Chronic effects**

None known.

#### **Aggravated Medical Conditions**

Dermatitis. Existing eye, skin and respiratory tract conditions.

### Indication of any immediate medical attention and special treatment needed

#### **Note to physicians**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

#### **Suitable extinguishing media**

Water fog, carbon dioxide, foam, dry chemical.

#### **Extinguishing media which must not be used for safety reasons**

No information available

### Special hazards arising from the substance or mixture

#### **Special Hazard**

Corrosive liquid. Acid components are incompatible with metals. May release flammable hydrogen gas on contact.

### Advice for firefighters

#### **Firefighting measures**

Cool exposed containers with water spray after extinguishing fire.

#### **Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

### Explosion data

**Sensitivity to Mechanical Impact**

None.

**Sensitivity to Static Discharge**

None.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear suitable protective clothing and gloves.

**Environmental precautions****Environmental precautions**

Avoid runoff to waterways and sewers.

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

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Clear spills immediately. Contain by diking, then pump into acid resistant container, label and store in a safe place for disposal. Neutralize remaining traces with dry soda ash, ground limestone, or hydrated builders lime.

## 7. HANDLING AND STORAGE

**Precautions for safe handling****Advice on safe handling**

Keep container closed when not in use

Avoid contact with eyes, skin and clothing

Wear chemical splash goggles, gloves, and protective clothing when handling.

Wash thoroughly after handling

Avoid breathing vapor or mist

Use with adequate ventilation and employ respiratory protection where mist or vapors may be generated.

Do not take internally

FOR INDUSTRIAL USE ONLY.

**Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Product may congeal or stratify if cold.

Warm to room temperature and mix well before using.

Store in a cool, dry place away from direct sunlight.

Store away from oxidizers, powdered metals and finely divided combustible materials.

Store in corrosion-resistant containers.

**Incompatible products**

Strong oxidizing agents, organic materials, metals, especially cyanides and sulfides. Contact with reactive metals may produce flammable hydrogen gas.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Component	weight-%	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric Acid 7647-01-0	< 8%	2 ppm Ceiling	5 ppm Ceiling; 7 mg/m <sup>3</sup> Ceiling	50 ppm IDLH

### Appropriate engineering controls

#### Engineering controls

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

### Individual protection measures, such as personal protective equipment

#### Eye/face Protection

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

#### Hand Protection

Appropriate chemical resistant gloves should be worn.

#### Skin and body protection

Standard work clothing and work shoes.

#### Respiratory protection

If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

#### Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

#### Hygiene measures

Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state	liquid
Color	dark brown
Appearance	clear
Odor	pungent
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	< 2	No information available
Melting / freezing point	-40 °C / -40 °F	No information available
Boiling point / boiling range	107 °C / 225 °F	No information available
Flash point	> 93 °C / > 200 °F	Pensky-Martens Closed Cup (PMCC)

<b>Evaporation rate</b>	No information available	No information available
<b>Flammability (solid, gas)</b>	No information available	No information available
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No information available	No information available
<b>Lower flammability limit</b>	No information available	No information available
<b>Vapor pressure</b>	No information available	No information available
<b>Vapor density</b>	No information available	No information available
<b>Specific gravity</b>	1.15 - 1.35	No information available
<b>Solubility (water)</b>	miscible	No information available
<b>Solubility in other solvents</b>	No information available	No information available
<b>Partition coefficient: n-octanol/water</b>	No information available	No information available
<b>Autoignition temperature</b>	No information available	No information available
<b>Decomposition temperature</b>	No information available	No information available
<b>Kinematic viscosity</b>	No information available	No information available
<b>Dynamic viscosity</b>	< 100 cps @ 25 °C	No information available

**Other information**

<b>Density</b>	10.2 lb/gal @ 20 °C
<b>Bulk Density</b>	No information available
<b>Explosive properties</b>	No information available.
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>Volatile organic compounds (VOCs) content</b>	No information available
<b>Percent Volatile, wt. %</b>	55 % (Water)

**10. STABILITY AND REACTIVITY****Reactivity****Reactivity**

No data available.

**Chemical stability****Chemical stability**

Stable under normal conditions of handling, use and transportation.

**Possibility of hazardous reactions****Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Not anticipated under normal or recommended handling and storage conditions.

**Conditions to avoid**

**Conditions to avoid**

None.

**Incompatible materials****Materials to avoid**

Strong oxidizing agents, organic materials, metals, especially cyanides and sulfides. Contact with reactive metals may produce flammable hydrogen gas.

**Hazardous decomposition products****Hazardous decomposition products**

Carbon dioxide, carbon monoxide, HCl and oxides of nitrogen and phosphorous.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Eye contact**

Destructive to eye tissue. Causes burns and corneal damage which may be permanent, even resulting in blindness.

**Skin contact**

Destructive to tissues contacted. Causes severe chemical burns.

**Ingestion**

Can cause burns of mucous membranes of gastrointestinal tract.

**Inhalation**

Overexposure to mist or spray can cause severe damage to mucous membranes of respiratory tract.

**Acute toxicity - Product Information**

<b>Oral LD50</b>	> 2,000 mg/kg
<b>Dermal LD50</b>	> 2,000 mg/kg
<b>Inhalation LC50</b>	No information available

**Acute toxicity - Component Information**

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Phosphonic Acid 13598-36-2	< 6%	= 1500 mg/kg ( Rat )	--	--
Hydrochloric Acid 7647-01-0	< 8%	= 700 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 3124 ppm ( Rat ) 1 h

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Causes severe burns

**Serious eye damage/eye irritation**

Risk of serious damage to eyes

**Sensitization**

No information available

**Germ cell mutagenicity**

No information available

**Carcinogenicity**

This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

**Reproductive toxicity**

No information available

**Specific target organ toxicity - Single exposure**

No information available.

**Specific target organ toxicity - Repeated exposure**

No information available

**Aspiration hazard**

No information available.

**Numerical measures of toxicity - Product Information**

- 43 - 48% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	7079 mg/kg
ATEmix (dermal)	60180 mg/kg
ATEmix (inhalation-dust/mist)	6 mg/l

**Other information**

Conclusions are drawn from sources other than direct testing.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity****Acute aquatic toxicity - Product Information**

<b>Fish</b>	LC50 (96 hrs) : 550 mg/L ( <i>Scophthalmus maximus</i> )
<b>Crustacea</b>	EC50 (48 hrs) : 258 mg/L (Daphnia)
<b>Algae/aquatic plants</b>	EC50 (72 hrs) : 163 mg/L

**Acute aquatic toxicity - Component Information**

Component	weight-%	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
Phosphonic Acid 13598-36-2	< 6%	--	LC50 (96 h static) 6980 - 9784 mg/L (Brachydanio rerio)	--
Hydrochloric Acid 7647-01-0	< 8%	--	LC50 (96 h static) = 282 mg/L (Gambusia affinis)	--

**Persistence and degradability****Persistence and degradability**

Not readily biodegradable

**Bioaccumulative potential**



**Bioaccumulative potential**

The bioaccumulation potential is low

**Mobility****Mobility**

No information available

**Results of PBT and vPvB assessment****PBT and vPvB assessment**

No information available

**Other adverse effects****Other information**

No other ecological studies have been carried out on this product.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Dispose of product by neutralization, dewatering, and incineration (or by other approved methods) in accordance with applicable Federal, state and local regulations. Avoid landfilling liquids. Avoid landfilling liquids.

**Contaminated packaging**

Since empty containers retain product residue, follow label warnings even after container is emptied.

**RCRA**

Is the unused product a RCRA hazardous waste if discarded? (Yes/No)

Yes

If yes, the EPA Hazardous Waste Code is:

D002 (corrosivity)

**14. TRANSPORT INFORMATION****DOT**

Regulated

**DOT UN/NA Number**

UN 3265

**Proper shipping name**

Corrosive Liquid, Acidic, Organic, N.O.S., (Organo-Phosphonic Acid)

**Hazard class**

8

**Packing group**

III

**ERG Number**

153

**ICAO/IATA**

Regulated

**UN number**

UN 3265

**Proper shipping name**

Corrosive Liquid, Acidic, Organic, N.O.S., (Organo-Phosphonic Acid)

**Hazard class**

8

**Packing group**

III

**ERG Code**

8L

**IMDG**

Regulated

**UN number**

UN 3265

**Proper shipping name**

Corrosive Liquid, Acidic, Organic, N.O.S., (Organo-Phosphonic Acid)

**Hazard class**

8

**Packing group**

III

**EmS**

F-A, S-B

**Harmonized Tariff Number**

2931.00

## 15. REGULATORY INFORMATION

### International Inventories

#### **TSCA (United States)**

All ingredients are on the inventory or exempt from listing

#### **Australia (AICS)**

Some ingredients are not on the inventory.

#### **Canada (DSL)**

All ingredients are on the inventory or exempt from listing

#### **Canada (NDSL)**

None of the ingredients are on the inventory.

#### **China (IECSC)**

All ingredients are on the inventory or exempt from listing

#### **EINECS (European Inventory of Existing Chemical Substances)**

All ingredients are on the inventory or exempt from listing

#### **ELINCS (European List of Notified Chemical Substances)**

None of the ingredients are on the inventory.

#### **ENCS (Japan)**

Some ingredients are not on the inventory.

#### **South Korea (KECL)**

Some ingredients are not on the inventory.

#### **Philippines (PICCS)**

Some ingredients are not on the inventory.

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**AICS** - Australian Inventory of Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**IECSC** - China Inventory of Existing Chemical Substances

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### U.S. Federal Regulations

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Component	CERCLA/SARA Hazardous Substance RQ	CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	Calculated Product RQ
Hydrochloric Acid 7647-01-0	5000 lb final RQ; 2270 kg final RQ	500 lb TPQ (gas only)	--

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Priority Pollutants	CWA - Toxic Pollutants
Hydrochloric Acid 7647-01-0	Present	5000 lb RQ	--	--

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	weight-%	SARA 313 - Threshold Values %
Hydrochloric Acid 7647-01-0	< 8%	1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

• As indicated above, this product contains an ingredient(s) subject to the reporting requirements of SARA Title III, Section 313 (40 CFR Part 372). This document constitutes the notification required by the SARA regulations and this notification statement must not be detached from the MSDS. If the MSDS is copied for any reason, including distribution, this notice must also be copied and accompany all redistributed MSDS's. Failure to do so may subject you to penalties under law.

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Phosphonic Acid 13598-36-2	
New Jersey Right to Know List	sn 1519
Hydrochloric Acid 7647-01-0	
Massachusetts Right to Know Law	Extraordinarily hazardous
Minnesota Hazardous Substance List	Present
New Jersey Right to Know List	sn 1012
Pennsylvania Right to Know List	Environmental hazard

**16. OTHER INFORMATION**

<b>NFPA Rating</b>	Health - 3	Flammability - 0	Instability - 1	Special Hazard -
<b>HMIS Rating</b>	Health - 3	Flammability - 0	Physical hazard - 1	Personal protection - X

<b>Product code</b>	1306D
<b>Revision date</b>	2015-03-11
<b>Revision number</b>	1

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet