

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

1.1 Product Identifier

Product name	ClearFlo-pH-SA-D 50%
Synonyms; trade names	Concentrated sulphuric acid, Oil of vitriol, Sulphuric acid, Battery acid
REACH registration number	01-2119458838-20
CAS number	7664-93-9
EC number	231-639-5

1.2. Relevant Identified uses of the substance or mixture and uses advised against

Identified Uses	Treatment of drinking water, has received approval by the European Committee for Standardisation. Manufacture of substances. Intermediate Processing aid pH regulating agent Battery electrolyte Pharmaceutical substance Plating and metal surface treatment agents Flue gas scrubber Laboratory agent.
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1.3. Details of the supplier of the safety data sheet

Supplier	GPC Clear Solutions Limited, Unit 57 Riverside Estate, Sir Thomas Longley Road, Medway City Estate, Rochester Kent ME2 4DP Tel: 01634 326920 Fax: 01634 570469 Sales@gpcclearsolutions.co.uk
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1.4. Emergency telephone number

Emergency telephone	01634 326920 (Office hours only)
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SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not classified
Health hazards	Skin Corr. 1A - H314
Environmental hazards	Not classified

Classification (67/548/EEC or 1999/45/EC)

Human health	The IARC had issued the following statement (Monograph 100F): "There is sufficient evidence in humans for the carcinogenicity of mists from strong inorganic acids. Mists from strong inorganic acids cause cancer of the larynx. There is limited evidence for a causal association of mists from strong inorganic acids with cancer of the lung. Mists from strong inorganic acids are carcinogenic to humans (Group 1).
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2.2 Label elements

EC number

231-639-5

Pictogram



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe vapour/spray.

P264 Wash contaminated skin thoroughly after handling.

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/shower.

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.

P310 Immediately call a POISON CENTRE/ doctor.

P321 Specific treatment (see medical advice on this label).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/ container in accordance with national regulations.

Contains

Sulphuric Acid

Supplementary precautionary statements

P260 Do not breathe vapour/ spray.

P264 Wash contaminated skin thoroughly after handling.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTRE/ doctor.

P363 Wash contaminated clothing before reuse.

2.3. Other hazards

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SECTION 3: Composition/Information on Ingredients

3.2. Mixtures

ClearFlo-pH-SA-D 50%	30-80%
CAS number: --	
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1A - H314	C;R35

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General Information

Speed is essential! Get medical attention immediately.

Inhalation

Remove affected person from source of contamination. Give oxygen if necessary. Apply artificial respiration if breathing has ceased or is failing. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance.

Ingestion

If confined to the mouth, rinse mouth thoroughly and ensure water is not swallowed. If swallowed, drink plenty of water. If substance has been swallowed, give water to drink immediately Do not induce vomiting.

Skin Contact

Remove contaminated clothing and rinse skin thoroughly with water.

Eye Contact

Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.

4.3. Indication of any Immediate medical attention and special treatment needed

Notes for the doctor

After treatment keep patient under observation for 48 hours, as delayed pulmonary oedema may develop.

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use fire-extinguishing media suitable for the surrounding fire. Use water to cool containers.

5.2. Special hazard arising from the substance or mixture

Special hazards

Oxidising agent. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

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5.3. Advice for fire fighters

Special protective equipment for fire fighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions

Do not discharge into drains or watercourses or onto the ground. Avoid discharge onto drains. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Small spillages: Absorb spillages with non-combustible, absorbent material. Do not use sawdust or other combustible material. Flush contaminated area with plenty of water. Large spillages: Neutralise spilled material with crushed limestone, slaked lime (calcium hydroxide), soda ash (sodium carbonate) or sodium bicarbonate. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. Extensive fumes may be released.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Wear appropriate protective clothing. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Avoid contact with skin and eyes. Never add water to sulphuric acid. Dilute by slowly adding acid to water, with stirring. Keep away from metals, organics, nitrates, chlorates, carbides and hot surfaces, as corrosive and toxic decomposition products can be formed.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in a cool and well-ventilated place. Store in vessels of mild steel. Note that dilution below 70% will allow ClearFlo-pH-SA-D to attack steel. Suitable containers: Plastic. Stainless steel. Store away from the following materials: Alkalis. Caustic products. Strong oxidising agents.

7.3. Specific end use(s)

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SECTION 8: Exposure Controls/ Personal protection

8.1. Control parameters

Occupational exposure limits

Sulphuric acid

Long-term exposure limit (8-hor TWA): 0.05 mg/m³

8.2. Exposure controls

Protection equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

Use protective gloves. Rubber or plastic.

Other skin and body protection

Chemical suit and boots if handling large quantities.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear Liquid.
Colour	Colourless.
Odour	Odourless.
pH	pH (concentrated solution): <0.1
Melting point	-1°C For 96% concentration.
Initial boiling point and range	323°C @ For 96% concentration.
Relative density	1840 @ 20°C For 96% concentration.
Solubility(ies)	Soluble in water.

9.2. Other Information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

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reactions Not relevant.

10.4. Conditions to avoid

Conditions to avoid

Avoid exposure to high temperatures or direct sunlight. Store in a well-ventilated area. Store in vessels suitable for substances of low pH. Avoid contact with the following materials: Strong alkalis. Strong oxidising agents.

10.5. Incompatible materials

Materials to avoid

Strong alkalis. Metals. Organics. Reacts violently with water; ensure acid is always added to water, never the reverse. Avoid contact with sulphides, selenides or arsenic compounds to prevent formation of the toxic gases hydrogen sulphide, hydrogen selenide, or arsenous hydride.

10.6. Hazardous decomposition products

Hazardous decomposition products

Heating may generate the following products: Sulphurous gases (SO_x).

SECTION 11: Toxicology Information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀

mg/kg) 2,140.0

Species Rat

Acute toxicity - Inhalation

Species Rat

Inhalation

Pulmonary oedema (excessive liquid in lungs) can occur after inhalation of the higher amounts. Mist/droplets are corrosive to the respiratory tract, and will cause a burning sensation in the throat, coughing and breathing difficulties. Long-term exposure may cause cancer of the larynx.

Skin contact

Cause severe burns. May lead to permanent scarring.

Eye contact

Risk of serious damage to eyes. Causes burns. Contact with concentrated chemical may very rapidly cause eye damage, possibly loss of sight.

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity - Fish 48 hours: 49 mg/l, *Lepomis macrochirus* (Bluegill)

12.2. Persistence and degradability

Persistence and degradability Remains indefinitely in environment as sulphate.

12.3. Bioaccumulative potential

12.4. Mobility in soil

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12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Other adverse effects

Release into drains will contribute to the acidification of effluent treatment systems, and injure sewage treatment organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Neutralise waste with alkaline material, such as crushed limestone, slaked lime (calcium hydroxide), soda ash (sodium carbonate) or sodium bicarbonate. Place waste in labelled, sealed containers. Dispose of waste via a licensed waste disposal contractor. Do not dispose directly into rivers or drains.

SECTION 14: Transport Information

14.1. UN number

UN no. (ADR/RID) 2769

UN no. (IMDG) 2796

UN no. (ICAO) 2796

14.2. UN proper shipping name

Proper shipping name
(ADR/RID)

SULPHURIC ACID

14.3. Transport hazard class(es)

Transport labels



14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

14.5. Environmental hazardous

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory Information

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

National regulations EH40/2005 Workplace exposure limits.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other Information

Revision comments	This is the first issue using the GHS Pro software package.
Issue by	GPC Clear Solutions Limited.
Revision date	22/09/2016
Revision	11
Supersedes date	11/06/2015
Risk phrases in full	R35 Causes severe burns.
Hazard statements in full	H314 Causes severe skin burns and eye damage.

This information relates only to the specific material designated and may not be valid for such material uses in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made

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to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.