



# Chemifloc Ltd.

## SAFETY DATA SHEET Sulphuric Acid 96%

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

### Section 1: Identification of the substance and of the company/undertaking

#### Identification of the substance or mixture

**Product Name:** Sulphuric Acid 96%  
**Chemical Name:** Sulphuric acid  
**Registration Number:** 01-2119458838-20  
**Synonyms:**  
**Date of first issue:** 15 April 2011  
**Version number:** 04  
**Revision date:** 24-03-2016  
**Supersedes date:** 04-03-2016

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

**Identified uses** Use in the treatment of raw water in the supply of either potable water or industrial process water  
pH-regulation. Process-chemical. Liquid for metal surface treatment.  
Chemical/technical industry.

**Uses advised against** None

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

**Manufacturer:** Chemifloc Ltd  
Smithstown, Shannon,  
Co. Clare,  
Rep. of Ireland.  
Tel: 00353 61 708699  
Fax: 00353 61 708698  
e-mail: [info@chemifloc.ie](mailto:info@chemifloc.ie)

**Emergency Telephone Number: National Poison Information Centre,  
00353 1 8379964**

### Section 2: Hazards Identification

#### Classification of the substance

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classificatory applies.

#### Classification according to Regulation (EC) no 1272/2008 as amended

##### Health hazards

Skin corrosion/irritation Category 1A H314 6 Causes severe skin burns and eye damage.

#### Main symptoms

Contact with this material will cause burns to the skin, eyes and mucous membranes.  
Inhalation of vapours in high concentration may cause shortness of breath (lung oedema).

#### Label elements

##### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Sulphuric Acid



<b>Signal word</b>	Danger
<b>Hazard statements</b>	H314 - Causes severe skin burns and eye damage.
<b>Precautionary statements</b>	
<b>Prevention</b>	P260 - Do not breathe mist or vapour. P280 ó Wear eye/face protection
<b>Response</b>	P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+351+338 ó IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P310 - Immediately call a POISON CENTER or doctor/physician. P363 - Wash contaminated clothing before reuse. P405 - Store locked up.
<b>Storage</b>	P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Disposal</b>	Not applicable
<b>Supplemental label information.</b>	Not applicable
<b>Other hazards</b>	Not assigned.

### Section 3: Composition/Information on Ingredients

#### Substance General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Sulphuric acid	95.5-96.5	7664-93-9 231-639-5	01-2119458838-20	-	#
Water	3.5-4.5	7732-18-5			

**Classification:** CLP: Skin Corr. 1A;H314

#: This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

**Composition comments** The full text for all H-phrases is displayed in section 16.

### Section 4: First Aid Measures

#### General information

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of shortness of breath, give oxygen. Keep victim warm. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### Description of first aid measures

##### Inhalation

Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

##### Skin contact

Skin contact: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

<b>Eye contact</b>	Eye contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
<b>Ingestion</b>	Wash out mouth with water. In the event of swallowing, induce patient to drink plenty of water. Get medical attention immediately.
<b>Most important symptoms and effects, both acute and delayed</b>	Corrosive effects, May cause irreversible eye damage.
<b>Indication of any immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Keep victim warm.

## Section 5: Firefighting measures

<b>General fire hazards</b>	Non-combustible, substance itself does not burn. Do not inhale combustion gases. Fire may result in decomposition and release of harmful vapours including sulphur oxides.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing Media</b>	None known.
<b>Special hazards arising from the substance or mixture</b>	The product itself does not burn. Reacts with many metals to produce flammable and explosive hydrogen gas. Do not inhale combustion gases. Fire may result in decomposition and release of harmful vapours including sulphur oxides
<b>Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective clothing.
<b>Special firefighting procedures</b>	No unusual fire or explosion hazards noted.

## Section 6: Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Stay upwind.
<b>For emergency responders</b>	Not available.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
<b>Methods and material for containment and cleaning up</b>	Should not be released into the environment. Prevent entry into waterways, sewers, basements or confined areas. Large Spills: Dike the spilled material, where this is possible. Soak up with inert absorbent material. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Sweep up or gather material and place in appropriate container for disposal. Following product recovery, flush area with water. After removal flush contaminated area thoroughly with water. Clean up in accordance with all applicable regulations. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste. After removal flush contaminated area thoroughly with water. This material and its container must be disposed of as hazardous waste. For waste disposal, see Section 13.
<b>Reference to other sections</b>	Not available.

## Section 7: Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with eyes. Avoid prolonged exposure. Wash hands thoroughly after handling. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed. Keep only in the original container. Store in corrosive resistant/container with a resistant inner liner. Keep out of the reach of children. Tanks should be vented and fitted with an overflow pipe. Tanks should be banded to contain spillage. Avoid freezing. Keep away from incompatible materials. Store in a cool, dry, well-ventilated area away from sources of ignition.
<b>Materials for packaging:</b>	Suitable material: plastic (PE, PP, PVC), fiberglass-reinforced polyester, acid proof or rubber-coated steel.
<b>Materials to avoid:</b>	Bases, non-acid proof metals (for example aluminium, copper and iron), Avoid contact with unalloyed steel or galvanized surfaces.
<b>Other data:</b>	Stable under recommended storage conditions.
<b>Specific end use(s)</b>	The specified uses for this material are shown in section 1 of this document.

## Section 8: Exposure controls / personal protection

### Control parameters

#### Occupational exposure limits Ireland

Components	Type	Value	Form
Sulphuric acid (7664-93-9)	OEL(8hr)	1.0 mg/m <sup>3</sup>	Sulphuric Acid

**Biological limit values** No biological exposure limits noted for the ingredient(s).  
**Recommended monitoring procedures** Not available.

#### DNEL

Components	Type	Route	Value	Form
	Industry	Oral	mg/kg bw/day	as
	Professional	Oral	mg/kg bw/day	as

**PNEC** Not available.

#### Exposure Controls

#### Appropriate engineering controls

Ventilation should be sufficient to effectively remove and prevent build-up of any dusts or fumes that may be generated during handling or thermal processing. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

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

#### General information

Wear personal protective equipment. Eye wash fountain and emergency showers are recommended. Ensure that eyewash stations and safety showers are close to the workstation location. Use personal protective equipment as required.  
Keep working clothes separately.

#### Eye/face protection

Wear eye/face protection. (EN166)

#### Skin protection

#### - Hand protection

For exposure of 4 to 8 hours use gloves made of: Neoprene. 4H. Use gloves with long sleeves. PVC or other plastic material gloves. (EN374)

#### - Other

Wear suitable protective clothing. (EN13034)

Chemical resistant apron.

If splashes are likely to occur, wear: Rubber or plastic boots.

<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Gas cartridge (sulphur dioxide). Dust filter P2 (for fine dust). At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.
<b>Thermal hazards</b>	Not available

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

#### General information (Appearance, odour)

<b>Physical State</b>	Oily liquid
<b>Colour</b>	Clear
<b>Odour</b>	Stinging

#### Important health safety and environmental information

<b>pH</b>	0
<b>Melting point/range</b>	-13.5 °C
<b>Boiling point / range</b>	300°C
<b>Flash point</b>	not applicable, In accordance with column 2 of REACH Annex VII, the study does not need to be conducted., inorganic compound
<b>Flammability (solid, gas)</b>	does not sustain combustion.
<b>Explosive properties</b>	
- <b>Lower explosive limit</b>	not applicable
- <b>Upper explosive limit</b>	
<b>Vapour Pressure</b>	not applicable, In accordance with column 2 of REACH Annex VII, the study does not need to be conducted.
<b>Density</b>	1.84 g/ml for sulfuric acid concentration of mass fraction of 96 %
<b>Viscosity</b>	22 mPa.s for sulfuric acid concentration of mass fraction of 96 % at 20 °C.
<b>Solubility(ies)</b>	
- <b>Water solubility</b>	miscible
<b>Partition coefficient (n-octanol/water)</b>	not applicable, inorganic compound.
<b>Thermal Decomposition</b>	Not available

#### Other information

## Section 10: Stability and reactivity

<b>Reactivity</b>	Corrodes base metals .
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	It produces hydrogen on contact with metals, e.g. steel, nickel and aluminium. It is a strong acid and reacts violently with alkalis.
<b>Conditions to avoid</b>	Reacts violently with strong alkaline substances. This product may react with reducing agents. Do not mix with other chemicals. Keep away from heat and sources of ignition. Avoid temperatures which may have a negative effect on the materials of construction used in equipment
<b>Incompatible materials</b>	Bases, non-acid proof metals (for example aluminium, copper and iron) Avoid contact with unalloyed steel or galvanized surfaces.
<b>Hazardous decomposition products</b>	
<b>Thermal decomposition</b>	Not available

## Section 11: Toxicological information

<b>General information</b>	Not available
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Causes digestive tract burns
<b>Inhalation</b>	May cause irritation to respiratory system
<b>Skin contact</b>	Causes severe skin burns
<b>Eye contact</b>	Causes severe eye burns
<b>Symptoms</b>	See Section 2.

### Information on toxicological effects

**Acute toxicity** Causes severe skin burns and eye damage.

### Components

Sulphuric acid (7664-93-9)

### Test results

Acute Inhalation LC50 Guinea pig: 0.018 mg/l 8.00 Hours

Acute Inhalation LC50 Rat: 347 mg/l 1.00 Hours

Acute Oral LD50 Rat: 2141 mg/kg

Acute Oral LD50 Rat: 2140 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes severe eye burns.
<b>Respiratory sensitisation</b>	Not classified.
<b>Skin sensitisation</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure. The International Agency for Research on Cancer (IARC) has concluded that occupational exposure to strong inorganic acid mists containing sulphuric acid is carcinogenic to man, causing cancer of the larynx. Although no direct link has been established between exposure to sulphuric acid itself and cancer in man, exposure to any mist or aerosol during the use of this product should be avoided.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Mixture versus substance Information</b>	Not known.
<b>Other information</b>	Not available.

## Section 12: Ecological information

### Toxicity

#### Components

Sulphuric acid (7664-93-9)

#### Test results

LC50 Western mosquito fish (*Gambusia affinis*): 42 mg/l  
96.00hours

Remarks: \* Estimates for product may be based on additional component data not shown.

### Persistence and degradability

#### Biological degradability:

No data is available on the degradability of this product. The product solely consists of inorganic compounds which are not biodegradable. The methods for determining the biological degradability are not applicable to inorganic substances.

### Bioaccumulative potential

Partition coefficient: n-octanol/water: not applicable, inorganic compound

### Mobility in soil

**Mobility** water solubility ó soluble  
**Results of PBT and vPvB assessment** Not available.

**Other adverse effects**

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Do not discharge into drains, water courses or onto the ground. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. May lower the pH of water and thus be harmful to aquatic organisms.

**Section 13: Disposal considerations**

**Waste treatment methods**

**Product** Classified as hazardous waste. Must be disposed of in accordance with local and national regulations.  
Thoroughly cleaned packaging material may be recycled.

**Contaminated packaging** Classified as hazardous waste. Must be disposed of in accordance with local and national regulations.

**Section 14: Transport information**

**ADR/RID:**

**UN Number:** 1830  
**Proper Shipping Name:** SULFURIC ACID with more than 51% acid  
**Transport hazard class(es)** 8  
**Subsidiary class(es)** -  
**Packing group** II  
**Environmental hazards** No  
**Labels required** 8  
**Special precautions for user** Not available.

**IATA**

**UN Number:** 1830  
**UN Proper Shipping Name:** SULFURIC ACID with more than 51% acid  
**Transport hazard class(es)** 8  
**Subsidiary class(es)** 4.3  
**Packing group** II  
**Environmental hazards** No  
**Special precautions for user** Not available.

**IMDG**

**UN number** 1830  
**UN proper shipping name** SULFURIC ACID with more than 51% acid  
**Transport hazard class(es)** 8  
**Subsidiary class(es)** 4.3  
**Packing group** II  
**Marine pollutant** No  
**EmS No.** F-A, S-B  
**Special precautions for user** Not available.



## Section 15: Regulatory information

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

### EU Regulations

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

Not listed.

**Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)**

Not listed

**Regulation (EC) No. 1907/2006, Article 59(1). Candidate List**

Not listed.

**National regulations** Not available.

Other regulations This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. No restrictions identified other than those already covered in regulations.

### Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for the components of this mixture.

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances(PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## Section 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H314 Causes severe skin burns and eye damage.

**Training advice** Not available

### Further information

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.

**Revised sections** Changes made to this document since the previous revision can be found in section(s), 3.

**Issue date:** 24-03-2016  
**Revision date:** 24-03-2016