

# **SAFETY DATA SHEET**

(according to Regulation (EC) No. 1907/2006)

Version: 1      Revision Date: 23.07.2020

## **FLOWRITE – 1 LTR**

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

#### **1.1 Product identifier**

Product Name: *Flowrite 1 Ltr*  
Product Code: *FLOW01*

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

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

Company: **CHAUCER SOLUTIONS LIMITED**  
Address: *Beodric House  
5 Boldero Road  
Bury St. Edmunds  
Suffolk  
IP32 7BS  
United Kingdom*  
Telephone: *+ 44 (0) 1767 677445*  
E-mail: *admin@chaucersolutions.co.uk*

#### **1.4 Emergency telephone number**

*+ 44 (0) 1767 677445 (Only available during office hours)*

### **2. HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture**

Classification (according to Regulation (EC) No. 1272/2008):  
*Skin Corrosion / Irritation Category 1A*

*H314: Causes severe skin burns and eye damage*

#### **2.2 Label elements**

#### **REGULATION (EC) No. 1272/2008**

Pictogram(s):



Signal Word: **DANGER**

Hazard Statements: *H314: Causes severe skin burns and eye damage*

Precautionary Statements:

Prevention: *P102: Keep out of reach of children*  
*P260: Do not breathe dust/fume/gas/mist/vapours/spray*  
*P264: Wash hands thoroughly after handling*  
*P280: Wear protective gloves/protective clothing/eye protection/face protection.*

Response: *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.*  
*P304+P340: IF INHALED: Remove victim to fresh air and Keep at rest in a position 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 CENTER or doctor/physician.*  
*P363: Wash contaminated clothing before reuse.*

Storage: *P405: Store locked up*

Disposal: *P501: Dispose of contents / container to a waste management service provider, according to the local law and regulations*

**2.3 Other Hazards** *None known*

### **3. COMPOSITION OF/INFORMATION ABOUT THE COMPONENTS**

#### **3.1 Substances**

#### **3.2 Mixtures**

Chemical Name	CAS-No. EINECS-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration [%]	Specific Concentration Limits
<i>sulphuric acid</i>	<i>7664-93-9 231-639-5 01-2119-458838-20-XXXX</i>	<i>Skin Corr. Cat.1A: H314</i>	<i>70 - 98 %</i>	<i>Eye Irrit. 2; H319: 5 % ≤ C &lt; 15 % Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C &lt; 15 %</i>

For the full text of the H - statements mentioned in this section, see section 16.

### **4. FIRST AID MEASURES**

#### **4.1 Description of first aid measures**

General advice: *Take the Hazard and Precautionary Statements (section 2) into account. Show this Safety Data Sheet to the physician in attendance if required.*

Inhalation: *Remove from exposure site to fresh air and keep at rest. Contact physician if symptoms persist.*

Skin contact: *Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.*

Eye contact: *Flush immediately with water for at least 15 minutes. Remove contact lenses if possible. Contact physician if symptoms persist.*  
Ingestion: *Rinse mouth with water and Contact physician if symptoms persist. Do NOT induce vomiting.*

**4.2 Most important symptoms and effects, both acute and delayed**  
*No additional information*

**4.3 Indication of any immediate medical attention and special treatment needed**  
*Provide physician with a copy of this Safety Data Sheet.*

**5. FIRE-FIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable extinguishing media:

*Water spray, carbon dioxide, dry chemical, foam.*

Extinguishing media which shall not be used for safety reasons:

*Do not use a high powered water jet directly on burning material.*

**5.2 Special Hazards arising from the substance or mixture**  
*No information available*

**5.3 Advice for Fire Fighters**

Special protective equipment for fire fighting:

*No information available*

Specific fire fighting methods:

*Do not use a high powered water jet directly on burning material.*

*Do not inhale fumes.*

*Evacuate personnel to a safe area.*

*Cool containers / tanks with water spray.*

**6. ACCIDENTAL RELEASE MEASURES**

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

*Remove all sources of ignition, and keep away from flames and hot surfaces. Avoid inhalation and contact with skin and eyes. Wear appropriate personal protective equipment. A self-contained breathing apparatus is recommended in case of a major spill. Collect Spillage.*

**6.2 Environmental precautions**

*Keep away from drains, surface and ground water and soil.*

**6.3 Methods for cleaning or taking up**

*Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.*

**7. HANDLING AND STORAGE**

**7.1 Handling**

Advice on safe handling:

*Avoid contact with the eyes, skin and clothing. Avoid excessive inhalation of concentrated vapours. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any*

*chemical contact, before breaks and meals, and at the end of each working period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.*

*If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapour concentrations in the work place air. Where chemicals are openly handled, access should be restricted to properly trained employees.*

*Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.*

Advice on protection against fire and explosion:  
*Keep away from ignition sources and naked flame.*

## 7.2 Storage

Requirements for storage areas and containers:

*Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.*

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control Parameters

**SULPHURIC ACID...100%**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.05 mg/m3	-	-	-

### 8.2 Personal protective equipment

Respiratory protection:

*Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation including places where this material is openly weighed or measured.*

*In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.*

*If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:*

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or*
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or*
- c) if normal operational workplace vapour concentration in the air is increased due to heat;*
- d) during emergencies; or*
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.*

*Particle filter class P2SL (EN143). Particle filter class P3SL (EN143).*

*Self-contained breathing apparatus must be available in case of emergency.*

Hand protection: *Avoid skin contact. Use chemically resistant gloves.*

**Skin and body protection:**

*Avoid contact with the skin. Wear a protective suit. Wash all contaminated clothing thoroughly before re-use.*

**Eye protection:** *Avoid contact with the eyes. Use tight-fitting goggles, face shield or safety glasses with side shields.*

**Hygiene Measures:**

*Ensure that eyewash stations and safety showers are close to the workstation location. Use clean, well-maintained personal protection equipment. Wash hands before breaks and at the end of the working day. Do not eat, drink or smoke whilst using or handling the product.*

*To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.*

*To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air or determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.*

**Protective measures:**

*The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and / or risks that may occur during use.*

**General Advice:** *Do not allow uncontrolled discharge of the product into the environment.*

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Appearance**

Physical state: *Liquid*  
Colour: *Colourless to brown*  
Odour: *Characteristic, mild*

### **9.2 Safety data**

Flash Point: *>93°C*  
pH: *<1*  
Boiling Point: *~200°C*  
Density g/cm<sup>3</sup>: *~1.69*  
Viscosity: *No data available*  
Vapour Pressure: *<0.001 mm Hg at 20°C*

## **10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

*No available information.*

### **10.2 Chemical Stability**

*No available information.*

### **10.3 Possibility of hazardous reactions**

*No available information.*



#### 10.4 Conditions to avoid

*No available information.*

#### 10.5 Incompatible materials

*No available information.*

#### 10.6 Hazardous decomposition products

*No available information.*

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Acute Toxicity

##### SULPHURIC ACID...100%

ORL	RAT	LD50	2140	mg/kg
VAPOURS	MUS	4H LC50	850	mg/m3

##### Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

#### 11.2 Skin corrosion/irritation

Skin irritation: *Causes severe skin burns*

#### 11.3 Serious eye damage/eye irritation

Eye irritation: *Causes serious eye damage*

#### 11.4 Respiratory or skin sensitization

Sensitisation: *No data available*

#### 11.5 Aspiration hazard:

Sensitisation: *No data available*

#### 11.6 Repeated dose toxicity

Repeated dose toxicity:  
*No data available.*

#### 11.7 STOT

STOT – single exposure:  
*No data available.*  
STOT – repeated exposure:  
*No data available.*

#### 11.8 Carcinogenicity

Carcinogenicity: *No data available.*

#### 11.9 Mutagenicity

Genotoxicity in vitro:  
*No data available.*  
Genotoxicity in vivo:  
*No data available.*

#### **11.10 Reproductive toxicity**

Reproductive toxicity:

*No data available.*

Developmental toxicity/Teratogenicity:

*No data available.*

### **12. ECOLOGICAL INFORMATION**

#### **12.1 Ecotoxicity effects**

Aquatic Compartment (including sediment)

##### **SULPHURIC ACID...100%**

ALGAE	72H ErC50	100	mg/l
DAPHNIA	48H EC50	100	mg/l
FISH	96H LC50	16-28	mg/l

#### **12.2 Persistence and degradability**

Biodegradability:

#### **12.3 Bioaccumulation**

Partition coefficient (n-octanol/water):

*No data available.*

#### **12.4 Mobility**

Known distribution to environmental compartments:

*No data available.*

### **13. DISPOSAL CONSIDERATIONS**

#### **13.1 Waste treatment methods**

Product: *Dispose of according to local regulations. Do NOT dispose of into drainage systems and into the environment.*

Contaminated packaging:

*Empty containers should be taken to an approved waste handling site for recycling or disposal.*

### **14. TRANSPORT INFORMATION**

#### **14.1 ADR**

UN-Number: 1830  
Dangerous Goods Description: SULPHURIC ACID  
Class: 8  
Packing group: II  
Classification Code: C1  
Tunnel restriction code: (E)  
Environmentally hazardous mark: No  
Hazard Identification No: 80  
Limited Quantity: 1L

#### **14.2 RID**

UN-Number: 1830  
Dangerous Goods Description: SULPHURIC ACID

Class: 8  
Packing group: II  
Classification Code: C1  
Tunnel restriction code: (E)  
Environmentally hazardous mark: No  
Hazard Identification No: 80  
Limited Quantity: 1L

#### 14.3 IATA

UN-Number: 1830  
Dangerous Goods Description: SULPHURIC ACID  
Class: 8  
Packing group: II  
Environmentally hazardous mark: No  
PCA Excepted quantities: E2  
PCA limited quantity max net quantity: 0.5L

#### 14.4 IMDG

UN-Number: 1830  
Dangerous Goods Description: SULPHURIC ACID  
Class: 8  
Packing group: II  
Environmentally hazardous mark: No  
Excepted quantities: E2  
Limited Quantity: 1L  
EmS Code: F-A, S-B

#### 14.5 ADN / ADNR

UN-Number: 1830  
Dangerous Goods Description: SULPHURIC ACID  
Class: 8  
Packing group: II  
Environmentally hazardous mark: No

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to regularly check their validity.

### 15. REGULATORY INFORMATION

National regulations: *Control of Substances Hazardous to Health Regulations 2002 (as amended).  
Health and Safety at Work etc. Act 1974 (as amended).*

EU legislation: *Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).*

*Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).*

Guidance: *Workplace Exposure Limits EH40.*

Authorisations (Title VII Regulation 1907/2006):  
*No specific authorisations are known for this product.*



Restrictions (Title VIII Regulation 1907/2006):

*No specific restrictions on use are known for this product.*

## **16. OTHER INFORMATION**

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

*H314: Causes severe skin burns and eye damage*

Full text of P – Statements referred to under sections 2 *P102: Keep out of reach of children*

*P260: Do not breathe dust/fume/gas/mist/vapours/spray*

*P264: Wash hands 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.*

*P304+P340:*

*IF INHALED: Remove victim to fresh air and Keep at rest in a position 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 CENTER or doctor/physician.*

*P363: Wash contaminated clothing before reuse.*

*P405: Store locked up*

*P501: Dispose of contents / container to a waste management service provider, according to the local law and regulations*

Further information:

According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to Chaucer Solutions Ltd at the time the data sheet was issued. The Safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. The information hereon is reliable to the best of our knowledge. However, the recommendations or suggestions hereon shall not be construed as a warranty or representation as to the results, safety and efficacy. Users should always make their own evaluations and tests suitable for their particular needs. We cannot be held liable for any loss or damage arising from the use of the information hereon. This document is not intended for quality assurance purposes.

- End of Safety Data Sheet -