SAFETY DATA SHEET
20% Sulphuric Acid

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

1.1 Product identifier

Product name  Sulphuric Acid 20%
Product No.  PL.7100

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

Identified uses  Laboratory reagent.
Uses advised against  No specific uses advised against are identified.

1.3 Details of the supplier of the safety data sheet

Supplier  Pro-Lab Diagnostics
3 Bassendale Road
Bromborough
Wirral, UK CH62 3QL
Tel: +44 (0) 151 353 1613
Fax: +44 (0) 151 353 1614
www.pro-lab.com

1.4 Emergency telephone number

+44 (0)151 353 1613 - Monday to Friday 9:00 to 17:00
+44 (0)7714 429 646 - outside the above hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Corrosive to metals (Category 1), H290

For the full text of the H-Statements mentioned in this Section, see Section 16.
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictogram

Signal word  Warning
Hazard statement(s)  H290  May be corrosive to metals.
20% Sulphuric Acid

Precautionary statement(s) None
Supplemental Hazard None
Statements

According to European Directive 67/548/EEC as amended

Hazard symbol(s) None
R-phrase(s) None
S-phrase(s) Safety data sheet available for professional user on request.

2.3 Hazards not otherwise classified (HNOC)
None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Formula \( H_2SO_4 \)
Molecular weight 98.08 g/mol

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric Acid</td>
<td>Met. Corr. 1; Skin Corr. 1A;</td>
<td>20%</td>
</tr>
<tr>
<td>CAS-No. 7664-93-9</td>
<td>H290, H314</td>
<td></td>
</tr>
<tr>
<td>EC-No. 231-639-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index-No. 016-020-00-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration No. 01-2119458838-20-XXXX</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hazardous ingredients according to Directive 1999/45/EC

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric Acid</td>
<td>C, R35</td>
<td>20%</td>
</tr>
<tr>
<td>CAS-No. 7664-93-9</td>
<td></td>
<td></td>
</tr>
<tr>
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<tr>
<td>Registration No. 01-2119458838-20-XXXX</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye contact
Flush eyes with water as a precaution.

Skin contact
Wash off with soap and plenty of water. Consult a physician.
20% Sulphuric Acid

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling Section (2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. **FIRE-FIGHTING MEASURES**

5.1 Extinguishing media

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Sulphur oxides.

5.3 Advice for firefighters

**Special fire fighting procedures**
Avoid breathing fire vapours. Move container from fire area if it can be done without risk. Water spray should be used to cool containers and to reduce vapours. Keep run-off water out of sewers and water sources. Be aware of danger for fire to re-start.

**Protective equipment for fire-fighters**
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. **ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. For personal protection see Section 8.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

Use inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. For disposal see Section 13.

7. **HANDLING AND STORAGE**

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. For precautions see Section 2.2.
7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be resealed and kept upright to prevent leakage. Storage class (TRGS 510): non-combustible, corrosive hazardous materials.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

This product does not contain any hazardous materials with occupational exposure limits.

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric Acid</td>
<td>7664-93-9</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>UK EH40 WEL – Workplace Exposure Limits</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.</td>
</tr>
</tbody>
</table>

TWA 0.05 mg/m³  Europe COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds.

<table>
<thead>
<tr>
<th>TWA</th>
<th>0.05 mg/m3</th>
<th>UK EH40 WEL – Workspace Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks</td>
<td></td>
<td>Where no specific short-term exposure limit is listed, a figure three times the long term exposure should be used.</td>
</tr>
</tbody>
</table>

Derived No Effect Level (DNEL)

<table>
<thead>
<tr>
<th>Application Area</th>
<th>Exposure routes</th>
<th>Health effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>Inhalation</td>
<td>Acute local effects</td>
<td>0.1 mg/m3</td>
</tr>
<tr>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term local effects</td>
<td>0.05 mg/m3</td>
</tr>
</tbody>
</table>
20% Sulphuric Acid

Predicted No Effect Concentration (PNEC)

<table>
<thead>
<tr>
<th>Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine water</td>
<td>0.00025 mg/l</td>
</tr>
<tr>
<td>Fresh water</td>
<td>0.0025 mg/l</td>
</tr>
<tr>
<td>Marine sediment</td>
<td>0.002 mg/kg</td>
</tr>
<tr>
<td>Fresh water sediment</td>
<td>0.002 mg/kg</td>
</tr>
<tr>
<td>Onsite sewage treatment plant</td>
<td>8.8 mg/l</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Body protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Control of environmental exposure
Do not let product enter drains.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: clear, liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.01 g/ml at 25°C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not determined</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

9.2 Other safety information

Not determined.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

Other decomposition products - No data available.
In the event of fire: see Section 5.
11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/irritation
No data available.

Respiratory or skin sensitisation
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed carcinogen by IARC.

Reproductive toxicity
No data available.

Specific target organ toxicity – single exposure
No data available.

Specific target organ toxicity – single exposure
No data available.

Aspiration hazard
No data available.

Additional Information
RTECS : Not available

To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
The substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very accumulative (vPvB) at levels of 0.1% or higher.
20% Sulphuric Acid

12.6 Other adverse effects
No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1. UN number
ADR/RID: 3264   IMDG: 3264   IATA: 3264

14.2. UN proper shipping name
ADR/RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric Acid)
IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric Acid)
IATA: Corrosive liquid, acidic, inorganic, n.o.s. (Sulphuric Acid)

14.3. Transport hazard class(es)
ADR/RID: 8   IMDG: 8   IATA: 8

14.4. Packing group
ADR/RID: III   IMDG: III   IATA: III

14.5. Environmental hazards
ADR/RID: no   IMDG Marine pollutant: no   IATA: no

14.6. Special precautions for user
Not applicable.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available.

15.2 Chemical Safety Assessment
A chemical safety assessment has been carried out for this substance.
20% Sulphuric Acid

16. OTHER INFORMATION

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

H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage.
Skin Corr. Skin corrosion.

Full text of R-phrases referred to under sections 2 and 3.

C Corrosive
R35 Causes severe burns

Disclaimer

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostic's control, it is the user's responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.