



Sulphuric Acid



MASS	BOILING POINT	MELTING POINT	DENSITY
98.07g/mol	337°C	10.3°C	1.83g/cm ³

Bench solution = 1M



PRECAUTIONS:

When preparing solutions always wear appropriate PPE including eye protection and gloves. Always add acid to water (never water to acid). Use a fume cupboard. You should always carry out a risk assessment when using any chemicals. Follow all recommended safety procedures and adhere to the label instructions, hazard warnings and local legislations.

RECIPES:

(The following recipes assume the use of 97%w/w (= 18.0M) sulphuric acid.)

- 1 litre 0.1M (IRRITANT) – add 5ml concentrated sulphuric acid to 995ml water
- 1 litre 0.5M (IRRITANT) – add 27ml concentrated sulphuric acid to 973ml water
- 1 litre 1M (IRRITANT) – add 54ml concentrated sulphuric acid to 946ml water
- 1 litre 2M (CORROSIVE) – add 110ml concentrated sulphuric acid to 890ml water
- 1 litre 3M (CORROSIVE) – add 162ml concentrated sulphuric acid to 838ml water
- 1 litre 4M (CORROSIVE) – add 216ml concentrated sulphuric acid to 784ml water
- 1 litre 5M (CORROSIVE) – add 270ml concentrated sulphuric acid to 730ml water
- 1 litre battery acid (CORROSIVE) – add 230ml concentrated sulphuric acid to 770ml water
- 1 litre 75% (CORROSIVE) – add 773ml concentrated sulphuric acid to 227ml water

Adding concentrated acid to water produces an extremely exothermic reaction.

Be prepared to cool the solution and glassware with chilled/iced water.

EXPERIMENTS:

Sulphuric acid can be used in the following experiments (scan or see website for details):



Reacting with
Copper Oxide



Catalyst Reaction
with Zinc



Sulphuric Acid
and Sugar



CORROSIVE



IRRITANT

CONVERSIONS:

- 1ml = 1 millilitre = 1cm³ = 1/1000th Litre
- 1 Litre = 1dm³ = 1000ml
- 1M = 1mol dm⁻³ = 1 mol l⁻¹ = 1 mole per litre

WATER:

Distilled water should be used unless otherwise stated. Tap water is not suitable as it contains impurities.

Order your
ingredients **24/7**
at **SciChem.com**

