



Sodium Hydroxide (caustic soda)

NaOH

MASS	BOILING POINT	MELTING POINT	DENSITY
40.00g/mol	1388°C	323°C	2.13g/cm ³

Bench solution = 0.5M – 2M



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:

These solutions should only be prepared after specific training or under direct supervision. When dissolved in water heat is produced and preparations should be made to cool more concentrated solutions.

Solubility – 108g per 100ml

- 1 litre 0.02M – 0.80g sodium hydroxide to 1000ml water.
- 1 litre 0.05M (IRRITANT) – 2g sodium hydroxide to 1000ml water.
- 1 litre 0.1M (IRRITANT) – 4g sodium hydroxide to 1000ml water.
- 1 litre 0.2M (IRRITANT) – 8g sodium hydroxide to 1000ml water.
- 1 litre 0.5M (CORROSIVE) – 20g sodium hydroxide made up to 1000ml with water.
- 1 litre 1M (CORROSIVE) – 40g sodium hydroxide made up to 1000ml with water.
- 1 litre 2M (CORROSIVE) – 80g sodium hydroxide made up to 1000ml with water.
- 1 litre 5M (CORROSIVE) – 200g sodium hydroxide made up to 1000ml with water.

Store in plastic screw cap bottles. Saturated solutions should not be stored!

EXPERIMENTS:

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



Titrating with Hydrochloric Acid



Titrations



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](https://www.SciChem.com)

