

## Technical Data Sheet

### Pacific Rim Oenology Services

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Product Name  
**Hydrochloric Acid Solutions**

Original - Issue date:  
08/08/17 - 08/08/17

### Section 1 - Product Description

- Clear, colourless, odourless solutions
- Dilute hydrochloric acid standard solution, 0.1 or 0.01 N

### Section 2 - General Information

- Both strengths are very dilute
  - 0.1 N HCl is approximately the acidic strength of lemonade
  - 0.01 N HCl tastes only very slightly acidic

### Section 3 - Applications

- Standardising sodium hydroxide solutions
- 0.1 N HCl can be used for cleaning pH electrode junction

### Section 4 - Instructions for use

- Standardising sodium hydroxide (NaOH):
  - Use 0.1 N HCl for 0.1 N NaOH or 0.067 N NaOH
  - Use 0.01 N HCl for 0.01 N NaOH or 0.2 N NaOH
  - Accurately pipette 5 ml of HCl into a flask or beaker with a volumetric pipette
  - Add a few drops of phenolphthalein and approximately 100 ml of boiling deionised water
  - Titrate immediately with NaOH to the very first sign of an extremely pale pink colour (not bright pink!)
  - Repeat the test for best accuracy
  - Calculate normality of NaOH:
    - $N_{\text{NaOH}} \times \text{ml}_{\text{NaOH}} = N_{\text{HCl}} \times \text{ml}_{\text{HCl}}$
    - $N_{\text{NaOH}} = N_{\text{HCl}} \times \text{ml}_{\text{HCl}} \div \text{ml}_{\text{NaOH}}$
  - Use calculated normality in tests using NaOH
  - If a precise normality of NaOH is required, small amounts of water can be added if the solution is too strong or small amounts of a stronger NaOH can be added if the solution is too weak
  - Standardise with HCl after any adjustment
- Cleaning pH electrode junction with 0.1 N HCl:
  - Soak pH electrode 15 minutes, with HCl solution covering the junction
  - Rinse electrode with deionised water and return electrode to soak solution before use/calibration

## Section 5 - Rates of addition

N/A

## Section 6 - Storage & Shelf life

- Store at room temperature in a dark place
- Shelf life: 1 year

## Section 7 - Safety information

- 0.1 N HCl:
  - Eye and skin irritant
- 0.01 N HCl:
  - Slight eye irritant
- Refer to Safety Data Sheet for more complete safety information

**Revision Date:** 18/08/2020

**Revision Summary:** Update to format

**Version:** 2

**Owner:** Oenologist

### Disclaimer

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# End of Technical Data Sheet