

Preparation of Standard Solutions

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



Learning Objectives

To prepare standard solutions of,



Learning Objectives

To prepare standard solutions of,

▶ 1 M sodium chloride



Pre-requisites



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- ▶ Higher secondary school Chemistry



System Requirement



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► Mac OS v 10.10.5



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- ▶ **Mac OS v 10.10.5**
- ▶ **ChemCollective Vlabs v 2.1.0**



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- ▶ **Java v 8.0**



System Requirement

- ▶ **Mac OS v 10.10.5**
- ▶ **ChemCollective Vlabs v 2.1.0**
- ▶ **Java v 8.0**
- ▶ **To run this application smoothly,
please install latest version of Java**



Calculation



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► Molar mass of NaCl = 58.44g/mol



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► **Formula:**

$$M = \frac{Wt}{\text{molarmass}} \times \frac{1000}{ml}$$

$$1.0 = \frac{Wt}{58.44} \times \frac{1000}{100}$$



Calculation

► **Molar mass of NaCl = 58.44g/mol**

► **Formula:**

$$M = \frac{Wt}{\text{molarmass}} \times \frac{1000}{ml}$$

$$1.0 = \frac{Wt}{58.44} \times \frac{1000}{100}$$

► **$Wt=5.844\text{g}$**



Summary



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We have learnt to prepare,

▶ 100 ml of 1M Sodium Chloride solution



Assignment



Assignment

Prepare the following standard solutions:

- 1. 250 mL of 5M Sodium Chloride solution**
- 2. 500 mL of 10N Magnesium Chloride solution**



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum for specific questions

- ▶ **Do you have questions in THIS Spoken Tutorial?**
- ▶ **Please visit**
<http://forums.spoken-tutorial.org>
- ▶ **Choose the minute and second where you have the question**
- ▶ **Explain your question briefly**
- ▶ **Someone from our team will answer them**



Forum for specific questions

- ▶ **The Spoken Tutorial forum is for specific questions on this tutorial**
- ▶ **Please do not post unrelated and general questions on them**
- ▶ **This will help reduce the clutter**
- ▶ **With less clutter, we can use this discussion as instructional material**



Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at**

<http://spoken-tutorial.org /NMEICT-Intro>

