Video « Preparing a solution from a solid »

Time	Text (woman) (man)
00 :09	We have to make a solution with 200 mg/L of sodium. How do we do that? Let's make it simple. We have a 1 litre volumetric flask, so we add 200 mg of sodium in 1 litre of distilled water and we're done. Do we really need 1 litre? 100 mL is amply enough! 1 litre is too much. Yes, you're right! It doesn't matter, we won't use the 1 litre flask but the 100 mL flask instead. Therefore it's simple, if we add 20 mg of sodium, we'll get a concentration of 100 mg/L
0043	Ok, but the problem is that here we have sodium chloride …. If you weigh 20 mg of sodium chloride, you won't get 20 mg of sodium … We have to mind that! That's right … How can we do that? We don't have the Mendeleiev table and I don't know the molar mass of sodium nor chloride.
01 :03	Don't worry, it is written over there. So, the molar mass of sodium chloride is 58.4 g/mol, the sodium is 23 and it is 35.5 for chloride. So …. Each of us should make the calculation and then we can compare our results to see if we get the same. Alright.
01 :20	Here what I have … We need to weigh 50.8 mg of sodium chloride. I get the same result. Let's go. I'm doing the weighing, alright? Sure.
01 :33	Ok it's done, there is 20 mg of sodium. Ok, I'll do the next.
01 :41	Wait!! What are you doing? Well … I am doing the dilution You cannot do that in a graduated cylinder! Why not? It is not precise at all! You won't get the correct concentration! You have to take a volumetric flask. This is much better for a dilution.
01 :58	Wait! You should use a funnel! Otherwise you could loose a bit of your product. How could you be sure that all the product is in the flask? Alright. And mind to rinse the beaker correctly! Yes, don't worry. Because some of the product will get stuck in the bottom of the beaker so you have to take it back in order to have the right concentration.
02 :17	Be careful! Don't make a mess! That's alright, you get everything? And mind to rinse well the funnel, because sometime some product is getting stuck here too. Ok. So now, I let you do the next part.
02 :38	Alright! I'll open it, it will be faster! Mind to dissolve the salt correctly before going until the mark. Really? You are right, it is probably better. That's good now. Are you sure? Yes, we cannot see the salt anymore.
03 :06	So … I will do it here, it is better! Be careful when you get to the mark. You should slow down now! You should take back the pissette now, you will be more precise. You are right, otherwise I'll go over the mark.
03 :28	Wait, the mark is not horizontal! If you fill in until the mark, you won't be precise. You

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	were the one who talk about precision earlier … So, either you hold the flask horizontally in your hand, either you put the flask on the table and you kneel to get the eyes right in front of the mark. I will do that, it is easier.
03 :52	The bottom of the meniscus needs to be on the mark, right? Yes. Here we go. Is it alright? Perfect.
04 :03	Maybe we should shake it. We should take some parafilm. So, do it.
04 :22	Are you marking the flask? We will remember that, don't we? It is better to mark, we never know! You think so? Alright … It is easy to make a mistake. So we have 200 mg/L of sodium. That's it. Perfect.