Ammonium thiocyanate

Posted by Anonymous on Mon, 2016-08-22 07:55

Ammonium thiocyanate deliquescent: Ammonium thiocyanate is becoming a liquid too fast. I kept it away from the light, but still had no results, and have also bought new jar recently.

Hence, I would like to ask for any other solutions to keep it dry, I thought about using a desiccator but am not sure. Thanks.

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Laboratory Technicians

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Submitted by sat on 02 September 2016

Answer reviewed 10 February 2023

You are correct that ammonium thiocyanate is hygroscopic and deliquescent, which means that it absorbs water from the air and dissolves in the water to become a liquid. We recommend that you store your new bottle in a desiccator and away from acids. Incompatible chemicals are not to be stored in the desiccator with it.

Hygroscopic solids can be protected from moisture in the air by storage in a well-sealed desiccator along with a desiccant. There is quite a range of substances which can be used as desiccants, however, taking into consideration safety, availability and ease of handling, we recommend silica gel. Silica gel is available as self-indicating, which means that it will change colour with the absorption of water. Once the silica gel changes colour, it can be regenerated and reused by drying in an oven at 105–120° C for 2–3 hours.

It is important to protect ammonium thiocyanate from light, as you are aware. It usually comes in a light-resistant container and your chemical store should not have direct sunlight entering, both of which would minimise the exposure to light.

We have previously answered a related question see:

Chemical Storage Timeframes (https://assist.asta.edu.au/question/2497/chemical-storage-timeframes)

Reference:

Chem Supply website, (2018) '*Ammonium thiocyanate Safety Data Sheet*'. Please search the product information page on the website for the latest version for Ammonium thiocyanate https://shop.chemsupply.com.au/
