Production of Silver Salts in Alkaloid AD Skopje

V.Mangovski* K.Anastasova, F.Godjo and A.M.Cvetanovska

Alkaloid AD, Blvd. Aleksandar Makedonski 12, Skopje, North Macedonia

**vmangovski@Alkaloid.com.mk*

Alkaloid AD Skopje, within the Chemistry Program has a long tradition in the production of pure chemicals. This group of products, also includes silver salts. Currently we manufacture the following silver salts: silver nitrate, silver sulfate, silver iodide and silver cyanide. The quality of these products ranges from reagent grade, pro analysi, Ph.Eur., USP and special quality requirements specified by the customers.

During the years our Research and Development team, alongside with Production and Quality control have made a series of improvements which include an integrated production process which is optimized to yield high quality products. This is achieved by using unique technology process and substantial improvements in the analytical techniques in the Quality control laboratory. The result of these improvements is a reliable and efficient process, which is at the same time flexible and tunable and can provide high quality silver salts, depending on the market demand.

Summary of the process: Silver metal is oxidized to silver nitrate with the action of nitric acid. The resulting solution can be concentrated by evaporation and crystallized to yield silver nitrate. Alternatively, the silver nitrate solution can be reacted with sulfuric acid to yield silver sulfate, or with potassium iodide to yield silver iodide, or with potassium cyanide to yield silver cyanide.[1]

Keywords: silver nitrate, silver sulfate, silver iodide, silver cyanide, redox, synthesis, quality

References

1. Brumby, A.; Braumann, P.; Zimmermann, K.; Van Den Broeck, F.; Vandevelde, T.; Goia, D.; Schiele, R.; Silver, Silver Compounds, and Silver Alloys. *Ullmann's Encyclopedia of Industrial Chemistry*, 2018. DOI: 10.1002/14356007.a24_107.pub2