

# GUM AMMONIAC (Dorema ammoniacum) Its Preparation & Application

by Jerry Tressler

## FLAT GILDING

Information on the preparation of gum ammoniac comes to us from De Arte Illuminandi, a 14th century manuscript containing the clearest explanation of its preparation. The author is unknown. The methods for the mix are a question of interpretation. The provided formula is the best one that I have used for nearly 30 years. It works very well! It's non-poisonous.

This particular gum comes from North Africa and Iran. There are many varieties of this gum. They are what are called exudations. Little blobs of resin creamy brown in color which are quite sticky. When cut down from the trees they mix with earthly matter found on the ground. It is not uncommon to find these nodules with little pieces of rock, sticks, dead insects, and leaves attached to the gum balls.



Gum ammoniac nodules

The preparation of Gum ammoniac:

There are two different types of ammoniac. The first is a gum which I would consider clean. Small little rocks of gum balls usually sold in 1 oz bags. The second, much stronger in adhesion are the nodules that contain an assortment of added debris such as sticks, rocks, twigs etc. This is the one you need! You may have to break up the particles with a hammer if you receive it in a single piece.

Here is the procedure.

Put the broken pieces of gum ammoniac nodules, in a container and add enough water to cover the entire amount. Cover the container and let it soften up. This may take several days. When ready, with your fingers (with a finger cot) really squeeze the gum nodules and continue to mash up this mix (as best as you can), until the entire liquid appears milky. Additionally, I have used a microwave, to add a little heat but for only 4 or 5 seconds just to break up or dissolve any additional particles. The liquid has to be strained through a very fine strainer. You now have Gum ammoniac! If you want, you can add a sliver of a

moth ball into the liquid as a preservative. Mothballs contain Beta Naphtha which is a preservative and will not affect the gum in any way. This is an option but not a necessity.

Pick up the container and look at the underside, to see if any sediment has settled at the bottom. You may have to re-strain the entire mix again leaving behind the grit. Do not stir; just pour off the liquid through a strainer. The object with any Gold size or gesso is keeping it grit free from impurities.

Wait, that's not the end! You need to add 1/4 teaspoon of sugar, and a 1/8 teaspoon of Gum Arabic solution plus, a pinch of Armenian bole for color. Another option would be to add a premixed binding medium for Ammoniac (see our gilding pricelist).

Keep the solution in an air tight container. In order to insure that the mix is free from any floating imperfections, free from unseen sediments continuously strain before use. After several strains, the ammoniac liquid will be ready and a pleasure to use. You can refrigerate the solution and keep it indefinitely. It has at least a 10 year shelf life.

I basically treat Gum ammoniac as an ink. The addition of the Gum Arabic aids in the viscosity of the liquid. This can be altered if necessary. The sugar provides some pliability and prevents cracking and being hygroscopic, the ability to absorb water moisture making it easier for the gold to adhere to the gum. You have to breathe on the gum ammoniac to activate its adhesive properties for it to accept the gold.

Aged glair which becomes an adhesive should be kept refrigerated. On a monthly basis, restrain the Glair to insure that it is free from any debris or particle break down. When ready to use, add a few drops of glair to the Gum ammoniac right before you intend to use it. Glair waterproofs after 24 hours. This can make the breathing process more difficult. Attach the Gold as soon as you can when using glair.



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