

What you should know about Acetic Acid:

This is the main restrainer chemical in the common Ferrous Sulfate based developer used in wet-plate. It is often sold and put to work in wet-plate developer formulas as 99.99 or 99.85% Glacial Acetic Acid.

In other words it's very concentrated stuff. If you get it on your skin for more than an instant it can burn you and by no means do you want to get any in your eyes or mouth or breathe its very caustic fumes. Be aware that mixing developer is something you will be doing a lot of. What we have come around to doing exclusively here at "Camp Tintype" is to use only 80% concentration Acetic Acid. It's a lot less likely to burn you if you get any on yourself or scorch your lungs if you happen to breathe the fumes. But still you should rinse with plenty of water if you do get it on exposed skin or in your eyes and avoid the fumes.

Above and beyond the mitigated safety issues, the most wondrous characteristic of 80% Acetic Acid is that it won't freeze into a useless solid ice-like mass at temperatures below only 62 degrees Fahrenheit like the concentrated Glacial Acetic Acid does. Sure you can put your bottle of solidified Glacial Acetic Acid in a tub of warm water and it will eventually liquefy. But why let your wet-plate life get any more complicated and hazardous than it has to be? 80% Acetic Acid is so resistant to freezing that you would need to bring it well below zero F to get it to freeze. Adding water to it is like adding anti-freeze to your car's radiator. Like I said, wondrous, amazing, and so useful to an "In the Field Wet-Plate Photographer". You will of course need to add 20% more of the 80% Acetic Acid to your developer formula than is called for with Glacial Acetic Acid. That can be a simple estimation and you'll do fine.

To make 80% Acetic Acid, put 800ml of 99.99 or 99.85% Glacial Acetic Acid in a plastic container and add 200ml of distilled water. Store it in a well labeled glass or preferably sturdy plastic bottle. It will have an unlimited shelf life and will best of all stay fluid and ready to pour even if you are on that Arctic Wet-Plate expedition!