Using Milk Powder in CP Soap

There are 3 main methods of incorporating milk powder into a CP soap and there are also many variations in these methods, but none are wrong, it's just that opinions differ. The main problem in making a milk soap is that excessive heat needs to be avoided and if using whole milk, or even reconstituted powdered milk the liquid milk should be frozen first.

Most published method is making your lye solution up by adding the dry sodium hydroxide (lye as it's known) to iced milk (literally ice cubes of frozen milk) which causes the ice to melt. You then work with a much cooler lye mixture which helps minimise problems associated with making milk soaps. It can be useful to start off the process with a little added cold water, but once the heat of the lye does it's job the ice cubes of milk will melt.

Note: It is normal for lye made with milk to give a slight ammonia odour as this is a reaction of the sugars and proteins in the milk to the lye. It is also normal for the lye to take on a slightly grainy texture, which is partly the saponification of the fats in the milk and partly a natural reaction of the proteins in the milk. Any graininess can be removed by making your soap using a stick blender.

Another method would be to use the milk powder AS powder. If choosing to use this method it would be normal to thoroughly blend your milk powder into your oils/fats and then work with a normal water-lye solution, but taking care to work cooler than maybe you normally would, suggest 115 deg F (46 deg C) or lower. You may need to use a stick blender to very thoroughly blend your milk powder into your oils/fats.

Finally, milk powder can be partly reconstituted in water and added to a standard CP soap near the trace as you might add other enrichments. If choosing this method you may want to reduce the amount of water in your lye solution to compensate for the water added with the milk later. Most milk powders have guidelines on how to reconstitute fully into liquid milk. To make a suitable concentrate to add in this way simply make up with less than recommended water (suggest ¼ or less). Again, keep the heat down to avoid scorching the milk addition.

Note: Milk is sensitive to the effects of lye in all of these methods and may produce an ammonia-like odour which is normal and will disappear during curing of the soap. Sugars in milk can also be scorched by the heat of the lye which is why heat should be limited, This may also cause a discolouration in the soap which is normal.

IMPORTANT. This guide is not intended as a recipe. You should find a suitable milk soap recipe or soap recipe suitable to take milk additions and use weights and measurements from that recipe.