CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2023
DateRun:	07/27/2023
Experimenters:	Siddhant Trivedi
ClientType:	Lab
ProjectNumber:	Project #11
Substrates:	Brass, Copper
PartType:	Coupon
Contaminants:	Rust/Scale
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	To test the efficiency of 5% citric acid in removing rust from brass and copper coupons.
Experimental Procedure:	Take 6 pre rusted brass and copper coupons and set them aside in trays. Take citric acid crystals in a beaker to make the 5%citric acid solution. Stir until the crystals completely dissolve. In this experiment,550 ml of the solution was prepared so 27.5g of citric acid crystals was used. Once the 5% citric acid is ready, immerse the brass/copper coupons in it and leave it for 10 min. After the 10 min, take out the coupons and give it a gentle wipe down with kimwipes to dry out the coupons of the citric acid . The initial visual reading would be a 5 so accordingly on how much you think the rust has been removed, give a reading from 1-5(1- being rust has been totally removed, 5-being no change)
Results:	The result of this experiment was no change. We started with an initial rating of 5 and the final rating would be a 5 as well.
Summary:	
Conclusion:	The citric acid did not seem to remove any rust from the coupons. Possible solutions could be increase the concentration of citric acid or use external conditions like heat, ultrasonics.