

**Synthesis and Analysis of a Coordination Compound**  
**Determination of the Percent Oxalate**  
**pre-lab**

1. What solution is used for this titration?
2. What is the oxidation state of the iron?
3. The reaction between  $\text{MnO}_4^{2-}$  and  $\text{C}_2\text{O}_4^{2-}$  is slow at room temperature, how is the reaction rate increased?
4. How many grams of the green salt should be used and how accurately should it be weighed?
5. How many mL should be used for each? a) deionized water, b)  $\text{H}_2\text{SO}_4$ , c) 85% (concentrated)  $\text{H}_3\text{PO}_4$
6. What should be done if acid gets on your skin or clothing?
7. What temperature should the solution be for the titration? Should the solution boil?
8. How will the equivalence point be indicated?
9. If the results of the titrations are not consistent what must be done?