**LABORATORY 1: CHEMICAL HANDBOOKS \_\_\_\_/25**

**A “*DRY LAB* “**

**DUE Thursday 4 September in Lab**

**YOUR NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PART 1: HANDBOOK LORE (13 pts/ 1 pt each)**

1. **Which handbook is most useful for telling us about a compound’s history and biological hazards?**

1. **what does the abbreviation for nD stand for and what is it, physically ?**
2. **What does `D’ stand for in nD ?**
3. **What does the abbreviation `dec’ mean under the melting point column in the CRC ?**
4. **What does solubility “ (1), (2)…etc. refer to in the solubility column in the CRC ?**
5. **Name three different ways to `find a particular organic chemical in the CRC (76th and beyond)**

**1)**

**2)**

**3)**

**g) What is the difference between specific gravity and density?**

**h) which compound reference number stays constant through the various editions of the CRC**

1. **At what pressure is the normal boiling point measured? (include pressure units)**

**j) What is meant when a boiling point is written as in the example 120oC 0.10  ?**

**k) Which ordering system dominates the CRC organic chemical listing:**

**i) common name, alphabetic ii) IUPAC name, first substituent alphabetic**

**iii) CAS number in ascending order iii) functional name alphabetic, then substituents alphabetic**

**PART 2: LOOKING UP THE COMPOUND EXERCISE (12 points)**

**STAPLE THE UNKNOWN COMPOUND YOU DREW TO THIS SHEET !!!!!**

**List the following:** (1 point each/5 points total)

**The CAS registry number (RN) for the compound:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(found in the 76th edition and beyond or via use of the Internet)

**If available in the handbook, list :**

**normal melting point, oC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**nD and reference temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**The CRC edition # and internal CRC reference #:** \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**for your compound CRC edition internal reference #**

**Place the answers to the specific question for your unknown below: (8 points)**