

Chemist 2

I. KIND AND LEVEL OF WORK

Second-level professional work performing chemical analysis in a laboratory setting. Under limited supervision, an employee in this class is responsible for independently performing chemical analysis, making observations, taking measurements, and interpreting results in accordance with accepted scientific principles and techniques. May provide leadwork direction to lower-level Chemists and technical staff. This position specializes in the use or operation of a particular complex analytical system. The incumbent exercises scientific judgment when interpreting outcomes of analysis and testing and in assessing appropriate methods and procedures to be used.

II. DISTINGUISHING CHARACTERISTICS

This class is differentiated from a Chemist 1 in that it operates at a higher level of autonomy when assessing testing methods and procedures and in the level of direction provided to laboratory staff. It differs from the class of Chemist 3 in that it does not provide training for other chemists.

III. EXAMPLES OF WORK/DUTIES

(A position may not include all the work examples given, nor does the list include all that may be assigned.)

- Perform chemical analyses and sample processing to provide composition information and to determine compliance with product specifications. Select method, reagents, equipment, and instrumentation that are appropriate for the analysis to be performed.
- Setup test methods on instrumentation according to the type of material and desired output. Ensure reagents & equipment necessary for analysis are available and operating within specifications. Periodic verifications/calibrations are current.
- Answers technical and information questions from laboratory staff so that knowledge analytical procedures can be developed in other employees.
- Implement quality control measures so that the laboratory and clientele are assured of the reliability of results by preparing fresh known standards, spiked samples, replicate analysis, and sample splits with cooperation of outside laboratories.
- Develop, implement, and record test procedures for accurate test results; conducting research on new techniques and procedures to keep measurements accurate and meet clientele needs; making comparisons with certified standards; taking care in handling and processing samples.
- Complete data analysis packages and transfer complete samples for storage. Validate and/or verify methods to establish and demonstrate that standards such as recovery, reproducibility, and accuracy are followed.

IV. KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

- *Principles, practices, procedures, and techniques of analytical chemistry sufficient to carry out assigned complex chemical analysis in the laboratory.*
- *Chemical laboratory test equipment sufficient to choose, operate, and maintain equipment for use in assigned chemical analysis and to act as expert in the use of one or more complex laboratory apparatus.*
- *Databases sufficient to use run or develop complex queries and review and analyze data using advanced software features.*

Ability to:

- *Organize, analyze, and present data from research with scientific accuracy and thoroughness sufficient to present results of analysis to supervision and to keep clientele informed as needed.*
- *Assemble and draft research material and perform required complex chemical analysis.*
- *Follow approved scientific laboratory methods sufficient to ensure the accuracy and validity of test results.*

LICENSURE/CERTIFICATION/STATUTORY REFERENCES

SPECIAL WORK CONDITIONS

REFERENCES

Former title(s): Chemist, Intermediate, 04/89

REVISION HISTORY

Established 05/74

Revised 12/23