

**RESEARCH CHEMIST**  
(FL080)

**PRIMARY RESPONSIBILITIES:**

The Research Chemist is a fully competent scientist in all conventional aspects of his/her field of work. Participates and is responsible for research and development activities related to ferrofluids. Utilizes established mathematical and scientific techniques to compile and analyze data. Writes technical reports detailing procedures, outcomes and observations. Has an understanding of routine scientific tasks relevant to the field of work and a good working knowledge of specialty areas encountered in the course of normal work.

**DESCRIPTION BY JOB LEVEL:****LEVEL I (Entry):**

Understands basic chemistry fundamentals and theory generally known to entry-level bachelor's degree graduates in the relevant field of work.

- Follows standard chemical practices and procedures.
- Performs assignments given by more senior level chemists.
- Follows instructions given regarding required tasks and expected results.
- Manager screens assignments for unusual or difficult problems and gives direction as to techniques and approaches to be used in completing new or non-routine work.
- Requires good organization and communication skills and the ability to work well with others.
- Requires routine exercising of judgement in making decisions among various technical options.
- May handle hazardous wastes at satellite storage areas.
- Participates in Hazard Communication and Hazardous Waste Management training in compliance with state and federal regulations within six months of hire and annually thereafter.

**LEVEL II (Intermediate):**

Meets Chemist I position description.

- Possesses a sound theoretical background and is able to apply fundamental scientific/theoretical techniques to real world problems in his/her field of work.
- Utilizes basic chemistry fundamentals and past experience gained to perform both routine and moderately complex formulations.
- Exercises judgement within defined practices and procedures to determine appropriate action on minor adaptations and modifications to standard ferrofluid products.
- General assignments have clear and specific objectives and require the investigation of a limited number of variables.
- Assistance is given on unusual problems and work is reviewed for application of sound professional judgement.
- Assignments may include preparation of specifications, analytical investigation, testing, report preparation, customer communication in technical areas, as well as other tasks fitting into the limited scope of that which can be accomplished under the direction of supervision.

### **LEVEL III (Senior):**

- Meets Chemist II position description.
- Is a fully competent chemist in all conventional aspects of his/her field of work.
- Works on complex ferrofluid formulations with minimal supervisory input.
- Is able to independently apply theoretical/analytical techniques pertaining to his/her expertise in generating solutions to conventional problems.
- Receives technical guidance on unusual or complex problems and managerial approval on proposed plans for projects.
- Exercises discretion and judgement on a regular basis in the independent evaluation, selection, and substantial adaptation of standard techniques to the task at hand.
- Devises new approaches to problems encountered.
- Provides training and assists more junior level chemists as required.
- Has an expert-level understanding of routine chemical tasks relevant to field of work and a good working knowledge of specialty areas encountered in the course of normal work.
- Plans, schedules, conducts, or coordinates detailed phases of analysis as part of a major project or for a total project of moderate scope.

### **LEVEL IV (Staff or Advisory):**

- Meets Chemist III position description.
- Applies intensive and diversified knowledge of chemical principals and practices in broad areas of assignments and related fields.
- Makes chemical decisions independently in the context of customer conferences, or meetings, which stand up to subsequent scrutiny.
- Requires the use of advanced techniques and practices in the related field of work, usually resulting from progressive experience.
- Supervision relates largely to the overall objectives, critical issues, new concepts, and policy matters.
- Consults with supervisor concerning highly unusual problems and developments.
- Carries out complex or novel assignments requiring the development of new or improved techniques.
- Work is expected to result in the development of new or refined equipment, materials, processes, products, and/or scientific methods.
- May perform as a staff advisor and consultant in a technical specialty function.
- May supervise, coordinate, and review the work of a small staff of chemists and technicians.

## **QUALIFICATIONS**

**LEVEL I (Entry):** BS degree or 7 years experience in field and proven chemistry skills

**LEVEL II (Intermediate):** BS degree with >5 years experience, or MS degree with >2 years experience, or 10 years experience in field and proven chemistry skills

**LEVEL III (Senior):** BS degree with >10 years experience, or MS degree with >5 years experience, or 15 years experience in field and proven chemistry skills

**LEVEL IV (Staff or Advisory):** BS degree with >15 years experience, or MS degree with >10 years experience, or 20 years experience in field and proven chemistry skills

*The above statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties, and skills required.*