# POSITION DESCRIPTION

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| **Position Title:** | **Analytical Chemist** |
| **Position Reference Number:** | ECRMD010b |
| **Division** | MD |
| **Position Classification:** | S&T 3-4 |
| **Position Location:** | Fishermans Bend, VIC |
| **Security Level:** | NV1 |
| **Enquiries:** | Steve Burke steve.burke@dst.defence.gov.au (03) 9626 7504<br>Nigel StJohn nigel.stjohn@dst.defence.gov.au (03) 9626 8447 |

## Academic Disciplines

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| | Aerospace/ Aeronautical Engineering, Naval Architecture | X | Chemical, Radiological, Biological, Food sciences | | Materials Science |
| | Computer Sciences, IT, Software Engineering, Telecommunications | | Mathematics and physics | | Psychology and Social Sciences |
| | Mechanical and Mechatronic Engineering (including robotics) | | Electronic/ Electrical Engineering | | Other |

## Position Overview

The Analytical Chemist will support multidisciplinary teams working on innovative applications of materials science to Australian Defence. The main focus of the position is on the analysis, characterisation and understanding of organic and polymeric materials for current and future Navy ships and submarines, but also involves support to investigations for aircraft and land vehicles. The work is not of a routine nature and requires an aptitude for problem solving as well as an understanding of the background and context of the investigations.

## Position Duties

Under limited guidance, the Analytical Chemist will:

1. Provide expert analytical chemistry support to materials research related to polymers, elastomers and fibre-reinforced plastics for the current fleet as well as to the development and assessment of future material systems for Defence platforms.
2. Develop competencies in laboratory testing and experiments using spectroscopic techniques (UV-VIS-NIR, IR and Raman spectroscopy), thermal analysis (differential scanning calorimetry, thermogravimetric analysis, thermomechanical analysis) and other techniques. Provide a critical interpretation of the results, their implications and their validity.
3. Provide timely reports for clients and DST leadership on relevant research areas, and where possible, contribute to the publication of novel research in scientific journals.
4. Maintain a state-of-the-art analysis capability, keeping up with trends and advances in the field.
5. Contribute to the management of laboratories and laboratory equipment, including WHS requirements.

## Other Requirements

Interstate travel may be required from time to time to attend scientific conferences, technical workshops or to participate in experimental trials.

The successful candidate will be required to successfully undergo a Negative Vetting 1 (NV1) security clearance.