



## **BERYLLIUM INFORMATION SHEET**

### **WHAT IS BERYLLIUM?**

Beryllium is a hard, greyish metal naturally found in mineral rocks, coal, soil and volcanic dust.

### **WHERE IS BERYLLIUM FOUND IN DEFENCE?**

Beryllium is a very light metal, which is stronger than steel. It has a high melting point of 1287°C, conducts heat well and is resistant to corrosion. Its properties have made it useful for applications across many industries.

Beryllium ores are used to make specialty ceramics for electrical and high-technology applications. Beryllium alloys are used in a wide range of applications including automobiles, aircraft engine parts and disc brakes, computers and calculators, televisions, sports equipment (such as golf clubs and bicycle frames), and dental bridges.

The Australian Defence Force has used de-rusting and de-scaling guns to remove paint. Normally these guns have steel needles, which may generate sparks. However, in the past, non-sparking copper-beryllium alloy needles were used where large amounts of fuel were stored, such as on aircraft carriers or tankers. These guns were known as Jasons pistols, and were used on HMAS Supply, HMAS Melbourne, HMAS Sydney and HMAS Vengeance.

### **CAN BERYLLIUM BE HARMFUL?**

Beryllium can be harmful if you breathe it in. The health effects depend on how much you are exposed to and for how long. If beryllium air levels are high enough a condition similar to pneumonia can result. This condition is called acute beryllium disease. Occupational and community air standards are effective in preventing lung damage from beryllium exposure.

However, in a very small number of people, beryllium can cause a chronic (long-term) lung disease called berylliosis, by triggering an immune (sensitising) response in the body. This may occur even 20 years after exposure has stopped.

Very few people who have been exposed to beryllium-related material will ever develop long-term lung disease. The New South Wales Dust Disease Board, which collects data on all "dust" diseases in the State, has recorded only one possible case of beryllium-induced lung disease in many decades of collecting State-wide data.

### **WHAT MEDICAL TESTS ARE AVAILABLE FOR TESTING FOR BERYLLIUM?**

There are specialised medical tests which can measure levels of beryllium in blood or urine. These tests require special equipment that is not available in most doctors' surgeries. These tests cannot tell the doctor if any health effects will occur from the exposure to beryllium.

### **WHAT IS DEFENCE DOING?**

A Defence Exposure Evaluation Scheme (DEES) has been established to register possible exposures to inorganic chromium or chromate. To register contact 1800 DEFENCE (1800 333 362) and provide details of your exposure.

### **WHAT SHOULD I DO?**

Current serving members – Once registered and you believe you have been exposed to beryllium through your service employment, you must also submit an AC563 Defence OHS Incident Report and contact your local Health Services to arrange an beryllium exposure evaluation. You may also lodge a claim with the Department of Veterans' Affairs (DVA) if you believe that your health has been affected by exposure to beryllium. DVA can be contacted on 133 254 or 1300 550 461.



Ex-serving members – Once registered and you believe you have been exposed to beryllium through your service employment, you should contact Medibank Health Solutions to arrange a medical assessment. You may also lodge a claim with the Department of Veterans' Affairs (DVA) if you believe that your health has been affected by exposure to beryllium. DVA can be contacted on 133 254 or 1300 550 461.

Current and former civilian employees – Once registered and you believe you have been exposed to beryllium you should contact Medibank Health Solutions for a medical assessment. Current employees must also submit an AC563 Defence OHS Incident Report.

ADF Cadets, Officers of Cadets – Once registered and you believe you have been exposed to beryllium through your service employment you should submit an AC563 Defence OHS Incident Report and contact Medibank Health Solutions to arrange an beryllium exposure evaluation.

Contractors and visiting personnel to Defence establishments – Under the Occupational Health and Safety Act 1991, Defence has a duty to take all reasonably practicable steps to protect the health and safety of contractors, their staff and other persons at or near Defence controlled workplaces. Employees of contractors employed by other Companies on Defence projects can register their details with DEES by contacting 1800 DEFENCE (1800 333 362). However they have no entitlement to medical counselling and preliminary medical examinations. They will need to contact their employer for further information.

## TECHNICAL INFORMATION

Technical information can be obtained by visiting the following websites:

- Defence Intranet website (available only to current Defence employees)  
<http://ohsc.defence.gov.au/FormsPublications/Information/Default.htm>
- Agency for Toxic Substances & Disease Registry  
<http://www.atsdr.cdc.gov/>
- Merck & Co Inc. USA – Beryllium Disease (Berylliosis)  
<http://www.merck.com/mmpe/sec05/ch057/ch057d.html#sec05-ch057-ch057d-1028>