

Dear Reader,

Welcome to our Easy Guide Blast. In a few words we would like to introduce the content of our Beryllium-containing materials **EXPOSURE ASSESSMENT GUIDE**. But first, let's give you some context.

CONTEXT OF THE BE RESPONSIBLE PROGRAMME

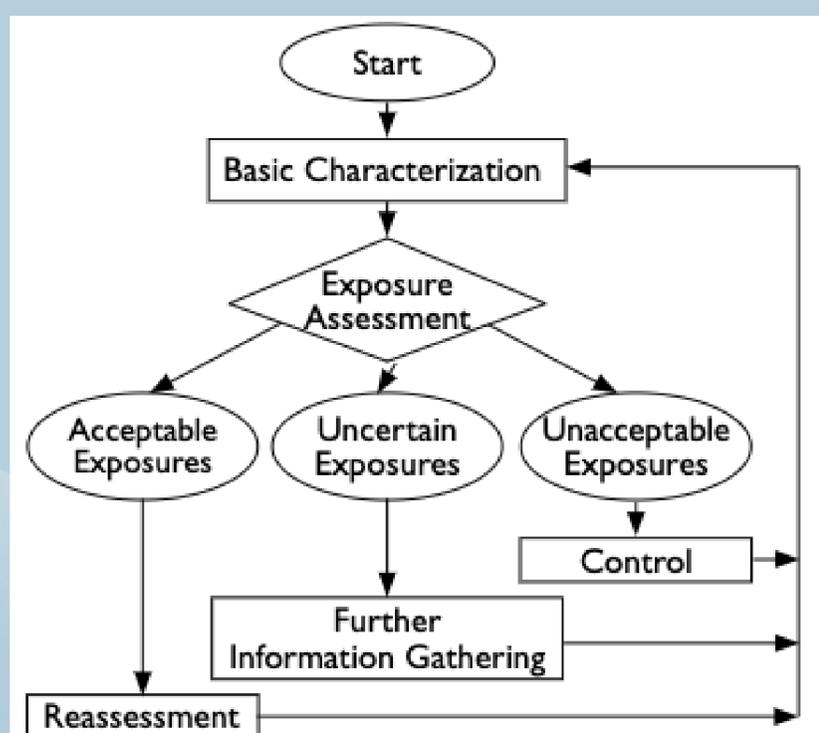


As you may know, the Be Responsible Programme was launched by the Beryllium Industry in an effort to advance the science of beryllium health and safety as well as protect beryllium workers and their close entourage.

The Beryllium Science and Technology Association and its members stress that substantial uncontrolled workplace exposure to beryllium airborne particles can present a potential health and safety risk to employees.

We, therefore, want to share with you tools and measures to help you protect workers when working with Beryllium-containing materials. We will be sharing with you examples of the key information contained in our 12 guides to guide you in working with our Beryllium-containing materials.

OUR PERSONAL EXPOSURE ASSESSMENT GUIDE



Example of strategy for Occupational Exposure Assessment

Beryllium-containing alloys present a health risk by inhalation of airborne particles if handled improperly.

However, the degree of hazard varies depending on the form of the product and how the material is processed. Exposure assessment is the process of estimating or measuring the concentration of an agent in the air, how long and how often exposure occurs to this agent.

The main goal is to determine if exposure profiles are "acceptable", "uncertain", or "unacceptable". In case the exposure profile is "uncertain", or "unacceptable", additional measures to reduce exposures are required.

But how to implement a proper exposure assessment?

The **EXPOSURE ASSESSMENT GUIDE** provides you with information on how to conduct an effective exposure assessment. Let's take a closer look.

A correct exposure assessment is divided into two parts:

Qualitative Exposure Assessment

Qualitative exposure assessment shall answer questions like:

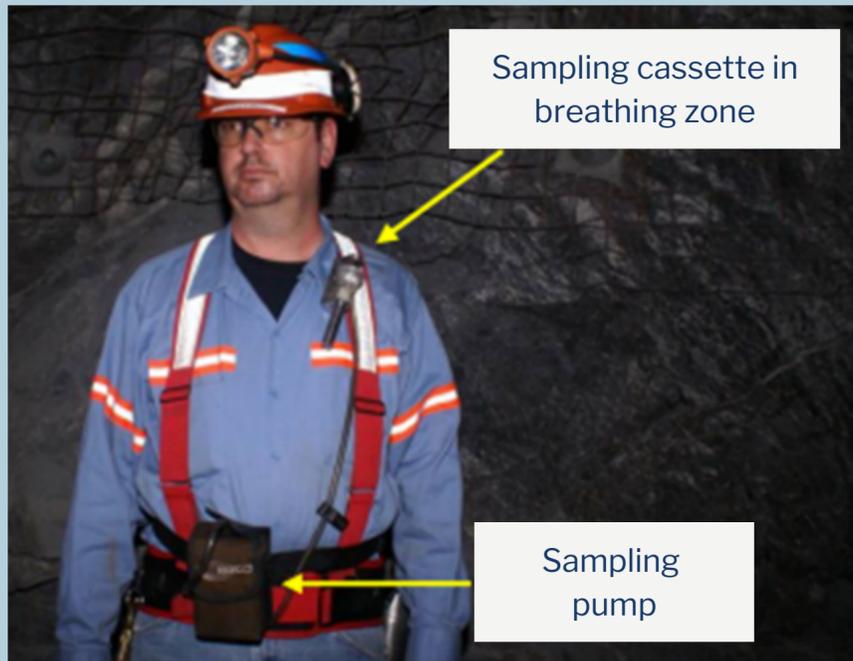
- Where are beryllium-containing materials processed?
- What processes are involved and are they in the "likely inhalation concerns" category?
- How much and how often is it processed?

Quantitative Exposure Assessment

Quantitative exposure assessment shall answer questions like:

- What is the airborne beryllium exposure profile?
- How does the airborne beryllium exposure profile compare to the Occupational Exposure Limit (OEL), if implemented or Recommended Exposure Guideline (REG)?
- How is the exposure profile (acceptable, uncertain, or unacceptable)?

BeST recommends that quantitative and qualitative exposure assessments be conducted by a qualified industrial hygienist or occupational health professional.



Exposure measurement in practice

An air sampling filter cassette is installed in the breathing zone of the operator. A calibrated pump is connected via a flexible tube to the cassette to collect airborne particulate. The filter inside the cassette is then analysed. Particles of beryllium and potentially other metals which have deposited on the filter can be analysed and quantified. The derived concentration of beryllium in the air can be compared to the Occupational Exposure Limit ($0.6 \mu\text{g}/\text{m}^3$ 8h TWA inhalable fraction in EU).

WANT TO KNOW MORE?

Check out our dedicated website www.berylliumssafety.eu in all European languages or get in contact with us at info@beryllium.eu

WHAT ABOUT THE OTHER GUIDES?

Do not worry, we will provide similar Easy Guide Blast for all our Be Responsible Guides in the coming months on a regular basis so keep an eye out for our emails! Previous Easy Guide Blasts are available [here](#).