

15 February 2024

Dear Reader,

Welcome to our Easy Guide Blast. In a few words we would like to introduce our **FORGING EXPOSURE CONTROL GUIDE** for Beryllium-containing materials. This is the seventh of nine guides on specific processes provided by the Be Responsible Programme.

CONTEXT OF THE BE RESPONSIBLE PROGRAMME



The **Be Responsible Programme**, launched by the Beryllium Industry, aims 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 (BeST), representative association of the beryllium industry, and its members stress that substantial uncontrolled workplace exposure to beryllium airborne particles can present a potential health and safety risk to employees.

What to achieve

The inhalation of beryllium-containing dust, mist or fume can cause a serious lung condition in some individuals. The use of engineering and work practice controls are the preferred methods of controlling exposure to beryllium-containing particulate reliably below the national occupational exposure limit (OEL) applicable in your country for airborne beryllium.

Exposure during the FORGING process

Forging, i.e. open & closed die forging, seamless rolled forging and ring rolled forging, of beryllium-containing alloys presents a health risk if effective controls are not implemented.

Important to know

While beryllium-containing alloy forging operations do not generate beryllium-containing fume, the spalling of surface oxide during subsequent handling steps can cause potential exposures.

Surface scale: The surface scale of beryllium-containing alloy parts should be safely handled and promptly cleaned up.

Mechanical surface conditioning: Mechanical surface conditioning, such as grinding, sawing and grit blasting must be performed with local exhaust ventilation or in an enclosed ventilated hood to prevent airborne exposure.

Good to know: Keeping the scale moist will help control generation of airborne particulate during handling and disposal; however, ventilation is the preferred method to control airborne generation of particulate.

Dies and hammers: The dies and hammers should be HEPA vacuumed and wet wiped to remove residual beryllium-containing material and reduce the potential for generating airborne beryllium-containing particulate during the repair process.

What else to consider: Local exhaust ventilation (LEV) is the preferred control technology.

Notes

GOLDEN RULES

Golden rule 1

As always, personal protective equipment, maintenance, housekeeping, local exhaust ventilation and workplace exposure characterisation must be implemented. Ventilation equipment must be inspected regularly to ensure it is functioning properly.

Golden rule 2

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

Golden rule 3

In case of doubt, always reach out to your supplier for additional guidance.

Check out the full FORGING exposure control guide [here](#).

Notes

WANT TO KNOW MORE?

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