BERYLLIUM (BE) – CONTAINING ALLOYS

Beryllium-containing alloys, in solid form and as contained in finished products do not present any special health risks. However, like many industrial materials, beryllium-containing alloys present a health risk if handled improperly.

The inhalation of beryllium-containing dust, mist or fume can cause a serious lung condition in some individuals. The degree of hazard varies depending on the form of the product and how the material is processed and handled. You must read the product specific Safety Data Sheet (SDS) for additional environmental, health and safety information before working with any beryllium-containing alloys.

The use of engineering and/or work practice controls are the preferred methods of controlling exposure to beryllium-containing particulate.

However, when engineering and/or work practice controls are not practical or effective, personal protective equipment (PPE) must be used to prevent inhalation of airborne beryllium-containing particles, skin contact, and prevent beryllium from being taken home on personal clothing.

RESPIRATORY PROTECTION

When airborne exposures exceed or have the potential to exceed the BeST Recommended Exposure Guideline (REG) of 0.6 microgram of beryllium per cubic meter of air (µg/m³) (Inhalable), measured as an 8-hour time weighted average (TWA) or the occupational exposure limit (OEL) applicable to the Member State for airborne beryllium, respiratory protection that is certified to European (EN) standards must be used as specified by an industrial hygienist or other qualified professional. Respirator users must be medically evaluated to determine if they are physically capable of wearing a respirator. Respirator users must satisfactorily complete quantitative and/or qualitative fit testing and respirator training.

Users of tight-fitting respirators must not have facial hair between the face and the sealing surface of the respirator face piece or which interferes with the operation of the respirator inhalation and/or exhalation valves. Exposure to unknown concentrations of particulate requires the wearing of a pressure-demand airline respirator or pressure-demand, self-contained breathing apparatus (SCBA). Pressure-demand airline respirators are used when performing jobs with high potential exposures, such as changing filters in a dust collector or other air-cleaning device. Proper selection and use of respirators must be supervised by a trained person to assure proper sizing, fitting, use, cleaning and maintenance of the device.

Paper-type dust masks or paint masks cannot be substituted for an approved respirator.

HANDS

Disposable impervious gloves must be worn when there is a potential for skin contact with beryllium-containing particulate and/or solutions.

Disposable gloves must be properly removed and disposed of after each use.

Hands should be washed after removing disposable gloves.

DISPOSABLE PROTECTIVE CLOTHING

Disposable protective clothing must be worn when there is a potential for beryllium-containing particulate contacting work clothing. Implement procedures and work practices to ensure that clothing and work boots are maintained in a “visibly” clean condition and to prevent migration of beryllium containing particulate to adjacent work areas. Types of disposable protective clothing include:

- Disposable coveralls for dry particulate
- Disposable coveralls for wet solutions
- Hooded coveralls to protect head and neck
- Disposable sleeves
- Disposable boot covers
WORK CLOTHING/BOOTS AND LOCKER ROOMS

To prevent beryllium containing particulate from migrating off the plant site, work clothing, work boots and locker rooms are necessary when disposable protective clothing is not effective at keeping workers’ clothing visibly clean. Personal clothing and shoes/boots must be segregated from work clothing and work boots.

Laundry facilities that clean work clothing potentially contaminated with beryllium-containing particulate must be informed of the potential hazards of handling dirty work clothing. Do not throw, shake or blow-off contaminated work clothing or shoes.

SHOWERS

When clothing becomes visibly contaminated and/or when beryllium-containing particulate may contact head/ hair/neck, workers must remove dirty work clothing and shower and wash their hair at the end of the work shift.

ADDITIONAL INFORMATION

Additional worker protection guidance can be obtained online at www.berylliumsafety.eu or by contacting the Beryllium Industry Science & Technology Association (BeST) at Rue de l’Industrie 4, B-1000 Brussels, Tel: +32 (0)2 213 74 20 | Email: info@beryllium.eu

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