



# COBALT, ANTIMONY COMPOUNDS, AND WEAPONS-GRADE TUNGSTEN ALLOY

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**Table S1.17 Biomonitoring guidance and reference values for cobalt**

Biological sample	Regulatory/guidance and reference values	Country/location	Value and units	Reference
Urine	Biological guidance value at the workplace	Germany	Cobalt 35 µg/L urine	<a href="#">Schmitz-Spanke et al. (2019)</a>
	Biological reference value: sampled at the end of the shift after several shifts	Germany	Cobalt 1.5 µg/L urine	<a href="#">Schmitz-Spanke et al. (2019)</a>
	Biomonitoring guidance value RV95: indicates background exposures in the adult population	France	RV95: cobalt 1.13 µg/g creatinine	<a href="#">Fréry et al. (2011)</a>
	OEL-B: sampled within 2 h before end of shift at end of work week	Japan	OEL-B: cobalt 35 µg /L urine	<a href="#">ISOH (2020)</a>
	ACGIH BEI: samples collected at the end of the shift at the end of the last day of the work week.	USA	BEI: cobalt 15 µg/L urine	<a href="#">ACGIH (2019)</a>
Blood	OEL-B: sampled within 2 h before end of shift at end of work week	Japan	OEL-B: cobalt 3 µg/L blood	<a href="#">ISOH (2020)</a>
	Biomonitoring guidance value RV95: indicates background exposures in the adult	Canada	RV95: cobalt 0.38 µg/L blood	<a href="#">Saravanabhavan et al. (2017)</a>

BEI, Biological Exposure Indices; Co, cobalt; OEL-B, occupational exposure limit based on biological monitoring; RV95, reference value.

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