

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

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TO HUMANS

# LIST OF ABBREVIATIONS

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AAS	atomic absorption spectrometry
ACB	albumin-cobalt-binding (assay)
ADM	adrenomedullin
AM	arithmetic mean
ARNT	aryl hydrocarbon receptor nuclear translocator
BAL	bronchoalveolar lavage
BALF	bronchoalveolar lavage fluid
BKMR	Bayesian kernel machine regression
BMI	body mass index
BrdU	5-bromo-2'-deoxyuridine
BSA	bovine serum albumin
bw	body weight
CAS	Chemical Abstracts Service
CAT	catalase
CI	confidence interval
CNS	central nervous system
CYP2A3	cytochrome P450, family 2, subfamily A, polypeptide 3
DEN	diethylnitrosamine
EGF	epidermal growth factor
ENU	ethylnitrosourea
EPO	erythropoietin
ER	estrogen receptor
ET	endothelin
ETAAS	electrothermal atomic absorption spectrometry
EU	European Union
e-waste	electronic and/or electrical waste
FAAS	flame atomic absorption spectrometry
FN3K	fructosamine 3 kinase
Fpg	formamidopyrimidine DNA glycosylate
FT4	free thyroxine
GLP	Good Laboratory Practice
GM	geometric mean
GPT	guanine phosphoribosyltransferase
GPX	glutathione peroxidase

GSD	geometric standard deviation
GSH	glutathione
GST	glutathione <i>S</i> -transferase
Hb	haemoglobin
HIF	hypoxia-inducible factor
HIV	human immunodeficiency virus
HLA	human leukocyte antigen
HMOX1	haem oxygenase 1
HMT	Harwell Mouth Tumour
HPRT	hypoxanthine-guanine phosphoribosyltransferase
HR	hazard ratio
HskMC	human skeletal muscle cells
HUVEC	human umbilical vein endothelial cell
8-I	8-isoprostane
ICP	inductively coupled plasma
ICP-AES	inductively coupled plasma-atomic emission spectroscopy
ICP-MS	inductively coupled plasma-mass spectrometry
Ig	immunoglobulin
INAA	instrumental neutron activation analysis
iNOS	inducible nitric oxide synthase
IQR	interquartile range
JEM	job-exposure matrix
LA-ICP-MS	laser ablation inductively coupled plasma-mass spectrometry
LASSO	least absolute shrinkage and selection operator
LC <sub>50</sub>	median lethal concentration
LD <sub>50</sub>	median lethal dose
LINE	long interspersed element
LOD	limit of detection
LOQ	limit of quantification
m <sup>6</sup> A	methylation of the adenosine base at the N <sup>6</sup> position of mRNA
MDA	malondialdehyde
MDE	mean dietary exposure
MEF	mouse embryonic fibroblast
miRNA	microRNA
mLOY	mosaic loss of chromosome Y
MMAD	mass median aerodynamic diameter
MoM	metal-on-metal
mRNA	messenger RNA
NAC	<i>N</i> -acetylcysteine
NATA	National Air Toxics Assessment
NC	not calculated
NER	nucleotide excision repair
NF-κB	nuclear factor-kappa B
NHANES	National Health and Nutrition Examination Survey
NIOSH	National Institute for Occupational Safety and Health
NOS	not otherwise specified
NP	nanoparticle
NTP	National Toxicology Program
NTS	N-terminal binding site
OGG1	8-oxoguanine DNA glycosylase

8-OHdG	8-hydroxy-2'-deoxyguanosine
OR	odds ratio
8-oxo-dG	8-oxo-2'-deoxyguanosine
8-oxo-dGTPase	8-oxo-2'-deoxyguanosine-5'-triphosphatase
OSHA	Occupational Safety and Health Administration
p53CON	p53 consensus binding site sequence
PAH	polycyclic aromatic hydrocarbon
PBL	peripheral blood leukocyte
PBMC	peripheral blood mononuclear cell
PCA	principal component analysis
PCE	polychromatic erythrocyte
PCNA	proliferating cell nuclear antigen
PCOS	polycystic ovary syndrome
PEG	primary exposure group
PEL	permissible exposure limit
PET	polyethylene terephthalate
PI3K	phosphatidylinositol 3-kinase
PM	particulate matter
PPAR	peroxisome proliferator-activated receptor
PR	progesterone receptor
ROS	reactive oxygen species
RR	relative risk
SD	standard deviation
SEM-EDXA	scanning electron microscopy with energy-dispersive X-ray analysis
SIK	spontaneously immortalized keratinocyte
SIR	standardized incidence ratio
SIRT1	sirtuin 1
SMR	standardized mortality ratio
SOD	superoxide dismutase
T <sub>90</sub>	theoretical value for the time to achieve 90% of the target concentration after the beginning of aerosol generation
TAK1	TGFβ-activated kinase 1
TDI	tolerable daily intake
TDS	total diet study
TNFα	tumour necrosis factor alpha
TWA	time-weighted average
US EPA	United States Environmental Protection Agency
UV	ultraviolet
VEGF	vascular endothelial growth factor
WC-Co	cobalt with tungsten carbide
WGTA	weapons-grade tungsten (with nickel and cobalt) alloy
WHO	World Health Organization
WNiFe	weapons-grade tungsten (with nickel and iron) alloy
WQS	weighted quantile sum
XPA	xeroderma pigmentosum complementation group A
XPAzf	XPA zinc finger sequence

