

COBALT, ANTIMONY COMPOUNDS, AND WEAPONS-GRADE TUNGSTEN ALLOY

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This publication represents the views and expert opinions of an IARC Working Group on the Identification of Carcinogenic Hazards to Humans, which met remotely, 2–18 March 2022

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ANNEX 4. SUPPLEMENTARY MATERIAL FOR SECTION 4, EVALUATION OF HIGH-THROUGHPUT IN VITRO TOXICITY SCREENING DATA

These supplementary web-only tables (available from: <https://www.publications.iarc.fr/618>) contain summaries of the findings (including the assay name, the corresponding key characteristic, the resulting “hit calls” both positive and negative, and any reported caution flags) for those chemicals evaluated in the present volume that have been tested in high-throughput screening assays performed by the United States Environmental Protection Agency (US EPA) and the United States National Institutes of Health. The results were generated by the Working Group using the software “kc-hits” (key characteristics of carcinogens – high-throughput screening discovery tool) available from <https://gitlab.com/i1650/kc-hits.git> (Reisfeld et al., 2022), using the US EPA Toxicity Forecaster (ToxCast) assay data and the curated mapping of key characteristics to assays available at the time of the evaluations performed for *IARC Monographs* Volume 131. Data were available for cobalt metal (without tungsten carbide) and some cobalt compounds, and trivalent and pentavalent antimony, but not for weapons-grade tungsten (with cobalt and nickel) alloy.

Please report any errors to imo@iarc.who.int.

Cobalt metal (without tungsten carbide) and some cobalt compounds

1. Cobalt(II) sulfate heptahydrate: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens

Trivalent and pentavalent antimony

1. Acetic acid, antimony(III) salt: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens

2. Antimony potassium(III) tartrate trihydrate: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
3. Antimony(III) trichloride: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
4. Antimony(V) sulfide: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
5. Antimony(III) potassium tartrate hydrate: ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens
6. Triphenylstibine(III): ToxCast/Tox21 assay results mapped to the key characteristics of carcinogens

Reference

Reisfeld B, de Conti A, El Ghissassi F, Benbrahim-Tallaa L, Gwinn W, Grosse Y, et al. (2022). kc-hits: a tool to aid in the evaluation and classification of chemical carcinogens. *Bioinformatics*. 38(10):2961–2. doi:[10.1093/bioinformatics/btac189](https://doi.org/10.1093/bioinformatics/btac189) PMID:[35561175](https://pubmed.ncbi.nlm.nih.gov/35561175/)