

Classification of Cobalt substances under GHS

Please find the classification of cobalt and its substances under GHS in the table below.
 Please contact REACHinfo@cobaltinstitute.org for further details.

N.B. In some jurisdictions globally (e.g. the European Union) it is a legal requirement to incorporate certain "harmonised" classifications over and above these self-classifications. Individual companies should assess the requirements for their products, and include relevant classifications in SDS and labelling as appropriate.

Substance name	EC number	CAS number	GHS classification
Cobalt massive; >99% over 1mm	231-158-0	7440-48-4	Acute Tox. 4; H302 Skin Sens. 1; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 3; H402 Aquatic Chronic 3; H412
Cobalt powder (non-respirable) ²			Acute Tox. 4; H302 Eye Irrit. 2B; H320 Skin Sens. 1; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=1)
Cobalt powder (respirable) ^{a 2}			Acute Tox. 4; H302 Acute Tox. 1; H330 Eye Irrit. 2B; H320 Skin Sens. 1; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=1)
Cobalt sulphate	233-334-2	10124-43-3	Acute Tox. 4; H302 Eye Irrit. 2A; H319 Skin Sens. 1A; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt dichloride	231-589-4	7646-79-9	Acute Tox. 4; H302 Acute Tox. 4; H332 ¹ Eye Dam. 1; H318 Skin Sens. 1A; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411

Substance name	EC number	CAS number	GHS classification
Cobalt dinitrate	233-402-1	10141-05-6	Ox. Sol. 2; H272 Acute Tox. 4; H302 Acute Tox. 4; H332 ¹ Skin Irrit. 3; H316 Eye Dam. 1; H318 Skin Sens. 1A; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt carbonate	208-169-4	513-79-1	Acute Tox. 4; H302 Skin Sens. 1; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt oxide	215-154-6	1307-96-6	Acute Tox. 3; H301 Acute Tox. 2; H330 Skin Sens. 1B; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=1)
Cobalt dihydroxide	244-166-4	21041-93-0	Acute Tox. 4; H302 Acute Tox. 1; H330 Eye Irrit.2; H319 Skin Sens. 1; H317 Resp. Sens. 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=10) Aquatic Chronic 2; H411
Cobalt lithium dioxide	235-362-0	12190-79-3	Repr. 1B; H360Fd Aquatic Acute 3; H402
Tricobalt tetraoxide	215-157-2	1308-06-1	Resp. Sens. 1B; H334 Aquatic Acute 3; H402 Aquatic Chronic 3; H412
Cobalt hydroxide oxide	234-614-7	12016-80-7	Resp. Sens. 1B; H334 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Cobalt sulphide	215-273-3	1317-42-6	Skin Sens. 1A; H317 Resp. Sens. 1B; H334 Aquatic Acute 1; H400 (M=10) Aquatic Chronic 2; H411
Cobalt(II) 4-oxopent-2-en-2-olate	237-855-6	14024-48-7	Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411

Substance name	EC number	CAS number	GHS classification
Cobalt oxalate	212-409-3	814-89-1	Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt di(acetate)	200-755-8	71-48-7	Acute Tox. 4; H302 Acute Tox.4 ; H332 ¹ Eye Irrit. 2A; H319 Skin Sens. 1A; H317 Resp. Sens 1B; H334 Carc. 1B; H350i Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt(2+) propionate	216-333-1	1560-69-6	Acute Tox. 4; H302 Acute Tox.4 ; H332 Eye Irrit. 2B; H320 Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt, borate propionate complexes	295-033-2	91782-61-5	Acute Tox. 4; H302 Acute Tox.4 ; H332 Eye Dam. 1; H318 Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Cobalt bis(2-ethylhexanoate)	205-250-6	136-52-7	Acute Tox. 5; H303 Eye Irrit. 2A; H319 Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 3; H412
Cobalt, borate 2-ethylhexanoate complexes	295-032-7	91782-60-4	Acute Tox. 5; H303 Eye Irrit. 2A; H319 Skin Sens. 1A; H317 Repr. 1B; H360Fd Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Neodecanoic acid, cobalt salt	248-373-0	27253-31-2	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 1; H372 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Cobalt, borate neodecanoate complexes	270-601-2	68457-13-6	Acute Tox. 4; H302 Eye Irrit. 2A; H319 Skin Sens. 1; H317 STOT RE 1; H372 Aquatic Acute 1; H400 (M=1) Aquatic Chronic 2; H411
Stearic acid, cobalt salt	237-016-4	13586-84-0	Skin Sens. 1; H317 STOT RE 1; H372 Aquatic Acute 2; H401 Aquatic Chronic 3; H412

Substance name	EC number	CAS number	GHS classification
Resin acids and Rosin acids, cobalt salts	273-321-9	68956-82-1	Self Heat. 2; H252 Skin Sens. 1A; H317 Resp. Sens 1B; H334 STOT RE 1; H372 Aquatic Acute 2; H401 Aquatic Chronic 3; H412

Notes:

- 1: Self-classified by route-to-route read-across from acute oral toxicity
- 2: Individual powders may be flammable and require classification as Flam. Solid 1 or 2
- a: Containing >0.01% respirable particles, as determined by SWeRF model