



Smelter and Refiner List

This list contains the smelters and refiners identified in Apple's supply chain as of December 31, 2024 for certain minerals.



As we work to protect the planet and uphold the human rights of people throughout our supply chain, Apple is committed to setting the highest standards when it comes to responsibly sourcing the materials used in our products.



Smelter and Refiner List

Our Responsible Materials Sourcing program sets supplier standards for the sourcing of the many materials found in Apple products, ranging from advanced bio-materials to minerals sourced from the earth and recycled content.













Our goal is to one day use only recycled and renewable materials in our products and packaging. As we make progress towards this goal, we continue our work to responsibly source minerals by conducting environmental and human rights due diligence in our supply chain, considering human rights impact on surrounding communities, and fostering opportunities for industry wide progress on responsible minerals sourcing. We utilize a comprehensive set of tools to drive progress in pursuit of these goals.

100% of identified tin, tantalum, tungsten, gold (3TG), cobalt, and lithium smelters and refiners have participated in a third-party audit.¹

More information on our Responsible Materials Sourcing program is available in Apple’s annual [People and Environment in Our Supply Chain Progress Report](#) as well as our [Conflict Minerals Report](#).

For more details, as well as the most current status of each 3TG and cobalt smelter or refiner, please refer to the information provided by the [Responsible Minerals Initiative’s Responsible Minerals Assurance Process](#) and the [London Bullion Market Association’s Good Delivery List](#).

Apple Responsible Sourcing Toolbox

 Innovate in materials sourcing	 Map the supply chain and establish strict requirements	 Understand risks by using supply chain tools such as the Risk Readiness Assessment
 Conduct independent, third-party audits of primary and recycled materials	 Address risks that are found	 Publish smelter and refiner list annually
 Increase recycled or renewable content	 Support local communities	 Engage with civil society and support local human rights and environmental defenders
 Strengthen industry traceability systems to increase transparency	 Develop and drive common industry standards	 Provide training to supply chain actors to strengthen due diligence

¹ As of June 2024, Apple issued a notification to its suppliers to cease the sourcing, directly or indirectly, of 3TG for Apple parts and products from the DRC and Rwanda.



Cobalt

Smelter or refiner name	Country or region
Fujian Evergreen New Energy Technology Co.	China mainland
Gangzhou Yi Hao Umicore Industry Co.	China mainland
Ganzhou Tengyuan Cobalt New Material Co., Ltd.	China mainland
Gem (Jiangsu) Cobalt Industry Co., Ltd.	China mainland
Guangdong Jiana Energy Technology Co., Ltd.	China mainland
Hunan CNGR New Energy Science & Technology Co., Ltd.	China mainland
Jingmen GEM Co., Ltd.	China mainland
Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	China mainland
Quzhou Huayou Cobalt New Material Co., Ltd.	China mainland
Umicore Finland Oy	Finland
Umicore Olen	Belgium
XTC New Energy Materials (Xiamen) LTD.	China mainland
Zhejiang Huayou Cobalt Company Limited	China mainland
Zhejiang New Era Zhongneng Technology Co., Ltd.	China mainland
Zhuhai Kelixin Metal Materials Co., Ltd.	China mainland

Lithium

Smelter or refiner name	Country or region
General Lithium Corporation	China mainland
Guangdong Guanghua Science & Technology Co., Ltd.	China mainland
Hunan Yongshan Lithium Co., Ltd.	China mainland
Jiangxi Dongpeng New Materials Co., Ltd.	China mainland
Jiangxi Ganfeng Lithium Co., Ltd.	China mainland
Ningdu Ganfeng Lithium Co., Ltd.	China mainland
Qinghai Dongtai Jinear Lithium Resources Co., Ltd.	China mainland
Qin Hai CITIC Guoan Lithium Industry Development Co., Ltd.	China mainland
Sichuan CATH Co., Ltd	China mainland
Sichuan Zhiyuan Lithium Industries Co., Ltd	China mainland
SQM Salar S.A. (Del Carmen Plant)	Chile
Tianqi Lithium (Jiangsu) Co., Ltd.	China mainland
Tianqi Lithium Industry (Shehong) Co., Ltd.	China mainland



Gold

Smelter or refiner name	Country or region	Smelter or refiner name	Country or region
Abington Reldan Metals, LLC	United States	Gold by Gold Colombia	Colombia
Advanced Chemical Company	United States	Gold Refinery of Zijin Mining Group Co., Ltd.	China mainland
Agosi AG	Germany	Heimerle + Meule GmbH	Germany
Aida Chemical Industries Co., Ltd.	Japan	Heraeus Germany GmbH Co. KG	Germany
Almalyk Mining and Metallurgical Complex (AMMC)	Uzbekistan	Heraeus Metals Hong Kong Ltd.	China mainland
AngloGold Ashanti Corrego do Sitio Mineracao	Brazil	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	China mainland
Argor-Heraeus S.A.	Switzerland	Ishifuku Metal Industry Co., Ltd.	Japan
Asahi Pretec Corp.	Japan	Istanbul Gold Refinery	Turkey
Asahi Refining Canada Ltd.	Canada	Italpreziosi	Italy
Asahi Refining USA Inc.	United States	Japan Mint	Japan
Asaka Riken Co., Ltd.	Japan	Jiangxi Copper Co., Ltd.	China mainland
Aurubis AG	Germany	JX Nippon Mining & Metals Co., Ltd.	Japan
Bangalore Refinery	India	Kazzinc	Kazakhstan
Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Philippines	Kennecott Utah Copper LLC	United States
Boliden Ronnskar	Sweden	KGHM Polska Miedz Spolka Akcyjna	Poland
C. Hafner GmbH + Co. KG	Germany	Kojima Chemicals Co., Ltd.	Japan
CCR Refinery - Glencore Canada Corporation	Canada	Korea Zinc Co., Ltd.	South Korea
Chimet S.p.A.	Italy	L'Orfebvre S.A.	Andorra
Chugai Mining	Japan	LS MnM Inc.	South Korea
Coimpa Industrial LTDA	Brazil	LT Metal Ltd.	South Korea
Dowa	Japan	Materion	United States
DSC (Do Sung Corporation)	South Korea	Matsuda Sangyo Co., Ltd.	Japan
Eco-System Recycling Co., Ltd. East Plant	Japan	Metal Concentrators SA (Pty) Ltd.	South Africa
Eco-System Recycling Co., Ltd. North Plant	Japan	Metalor Technologies (Hong Kong) Ltd.	China mainland
Eco-System Recycling Co., Ltd. West Plant	Japan	Metalor Technologies (Singapore) Pte., Ltd.	Singapore
GG Refinery Ltd.	Tanzania	Metalor Technologies (Suzhou) Ltd.	China mainland



Gold (cont.)

Smelter or refiner name	Country or region	Smelter or refiner name	Country or region
Metalor Technologies S.A.	Switzerland	SungEel HiMetal Co., Ltd.	South Korea
Metalor USA Refining Corporation	United States	T.C.A S.p.A	Italy
Metalurgica Met-Mex Penoles S.A. De C.V.	Mexico	Tanaka Kikinzoku Kogyo K.K.	Japan
Mitsubishi Materials Corporation	Japan	Tokuriki Honten Co., Ltd.	Japan
Mitsui Mining and Smelting Co., Ltd.	Japan	TOO Tau-Ken-Altyn	Kazakhstan
MKS PAMP SA	Switzerland	Torecom	South Korea
MMTC-PAMP India Pvt., Ltd.	India	Umicore S.A. Business Unit Precious Metals Refining	Belgium
Nadir Metal Rafineri San. Ve Tic. A.S.	Turkey	United Precious Metal Refining, Inc.	United States
Navoi Mining and Metallurgical Combinat	Uzbekistan	Valcambi S.A.	Switzerland
NH Recytech Company	South Korea	WEEEREFINING	France
Nihon Material Co., Ltd.	Japan	Western Australian Mint (T/a The Perth Mint)	Australia
Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	Austria	WIELAND Edelmetalle GmbH	Germany
Ohura Precious Metal Industry Co., Ltd.	Japan	Yamakin Co., Ltd.	Japan
Planta Recuperadora de Metales SpA	Chile	Yokohama Metal Co., Ltd.	Japan
PT Aneka Tambang (Persero) Tbk	Indonesia	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	China mainland
PX Precinox S.A.	Switzerland		
Rand Refinery (Pty) Ltd.	South Africa		
REMONDIS PMR B.V.	Netherlands		
Royal Canadian Mint	Canada		
SAFINA A.S.	Czechia		
SEMPSA Joyeria Plateria S.A.	Spain		
Shandong Gold Smelting Co., Ltd.	China mainland		
Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	China mainland		
Sichuan Tianze Precious Metals Co., Ltd.	China mainland		
Solar Applied Materials Technology Corp.	Taiwan		
Sumitomo Metal Mining Co., Ltd.	Japan		



Tantalum

Smelter or refiner name	Country or region	Smelter or refiner name	Country or region
AMG Brasil	Brazil	TANIOBIS GmbH	Germany
D Block Metals, LLC	United States	TANIOBIS Japan Co., Ltd.	Japan
F&X Electro-Materials Ltd.	China mainland	TANIOBIS Smelting GmbH & Co. KG	Germany
FIR Metals & Resource Ltd.	China mainland	Telex Metals	United States
Global Advanced Metals Aizu	Japan	Ulba Metallurgical Plant JSC	Kazakhstan
Global Advanced Metals Boyertown	United States	XIMEI RESOURCES (GUANGDONG) LIMITED	China mainland
Guangdong Rising Rare Metals-EO Materials Ltd.	China mainland	XinXing HaoRong Electronic Material Co., Ltd.	China mainland
Hengyang King Xing Lifeng New Materials Co., Ltd.	China mainland	Yanling Jincheng Tantalum & Niobium Co., Ltd.	China mainland
Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	China mainland		
Jiangxi Tuohong New Raw Material	China mainland		
JiuJiang JinXin Nonferrous Metals Co., Ltd.	China mainland		
Jiujiang Tanbre Co., Ltd.	China mainland		
Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	China mainland		
KEMET de Mexico	Mexico		
Materion Newton Inc.	United States		
Metallurgical Products India Pvt., Ltd.	India		
Mineracao Taboca S.A.	Brazil		
Mitsui Mining and Smelting Co., Ltd.	Japan		
Ningxia Orient Tantalum Industry Co., Ltd.	China mainland		
NPM Silmet AS	Estonia		
PowerX Ltd.	Rwanda		
QuantumClean	United States		
Resind Industria e Comercio Ltda.	Brazil		
RFH Yancheng Jinye New Material Technology Co., Ltd.	China mainland		
Taki Chemical Co., Ltd.	Japan		
TANIOBIS Co., Ltd.	Thailand		



Tin

Smelter or refiner name	Country or region	Smelter or refiner name	Country or region
Alpha Assembly Solutions Inc	United States	Mineracao Taboca S.A.	Brazil
Aurubis Beerse	Belgium	Mining Minerals Resources SARL	Democratic Republic of the Congo
Aurubis Berango	Spain	Minsur	Peru
Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	China mainland	Mitsubishi Materials Corporation	Japan
Chifeng Dajingzi Tin Industry Co., Ltd.	China mainland	O.M. Manufacturing (Thailand) Co., Ltd.	Thailand
China Tin Group Co., Ltd.	China mainland	O.M. Manufacturing Philippines, Inc.	Philippines
CRM Fundicao De Metais E Comercio De Equipamentos Eletronicos Do Brasil Ltda	Brazil	Operaciones Metalurgicas S.A.	Bolivia
CRM Synergies	Spain	Precious Minerals and Smelting Limited	India
CV Ayi Jaya	Indonesia	PT Aries Kencana Sejahtera	Indonesia
CV Venus Inti Perkasa	Indonesia	PT Artha Cipta Langgeng	Indonesia
Dowa	Japan	PT ATD Makmur Mandiri Jaya	Indonesia
DS Myanmar	Myanmar	PT Babel Inti Perkasa	Indonesia
EM Vinto	Bolivia	PT Babel Surya Alam Lestari	Indonesia
Estanho de Rondonia S.A.	Brazil	PT Bangka Prima Tin	Indonesia
Fabrica Auricchio Industria e Comercio Ltda.	Brazil	PT Bangka Serumpun	Indonesia
Fenix Metals	Poland	PT Bangka Tin Industry	Indonesia
Gejiu Non-Ferrous Metal Processing Co., Ltd.	China mainland	PT Belitung Industri Sejahtera	Indonesia
Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	China mainland	PT Bukit Timah	Indonesia
HuiChang Hill Tin Industry Co., Ltd.	China mainland	PT Cipta Persada Mulia	Indonesia
Jiangxi New Nanshan Technology Ltd.	China mainland	PT Menara Cipta Mulia	Indonesia
Luna Smelter, Ltd.	Rwanda	PT Mitra Stania Prima	Indonesia
Magnu's Minerai's Metais e Ligas Ltda.	Brazil	PT Mitra Sukses Globalindo	Indonesia
Malaysia Smelting Corporation (MSC)	Malaysia	PT Premium Tin Indonesia	Indonesia
Malaysia Smelting Corporation Berhad (Port Klang)	Malaysia	PT Prima Timah Utama	Indonesia
Metallic Resources, Inc.	United States	PT Putera Sarana Shakti (PT PSS)	Indonesia
		PT Rajawali Rimba Perkasa	Indonesia



Tin (cont.)

Smelter or refiner name	Country or region
PT Rajehan Ariq	Indonesia
PT Refined Bangka Tin	Indonesia
PT Sariwiguna Binasentosa	Indonesia
PT Stanindo Inti Perkasa	Indonesia
PT Sukses Inti Makmur (SIM)	Indonesia
PT Timah Nusantara	Indonesia
PT Timah Tbk Kundur	Indonesia
PT Timah Tbk Mentok	Indonesia
PT Tinindo Inter Nusa	Indonesia
PT Tommy Utama	Indonesia
Resind Industria e Comercio Ltda.	Brazil
Rui Da Hung	Taiwan
Super Ligas	Brazil
Takehara PVD Materials Plant / PVD Materials Division of MITSUI MINING & SMELTING CO., LTD.	Japan
Thaisarco	Thailand
Tin Smelting Branch of Yunnan Tin Co., Ltd.	China mainland
Tin Technology & Refining	United States
White Solder Metalurgia e Mineracao Ltda.	Brazil
Woodcross Smelting Company Limited	Uganda
Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	China mainland
Yunnan Yunfan Non-ferrous Metals Co., Ltd.	China mainland

Tungsten

Smelter or refiner name	Country or region
A.L.M.T. Corp.	Japan
Asia Tungsten Products Vietnam Ltd.	Vietnam
China Molybdenum Tungsten Co., Ltd.	China mainland
Chongyi Zhangyuan Tungsten Co., Ltd.	China mainland
Cronimet Brasil Ltda	Brazil
Fujian Xinlu Tungsten Co., Ltd.	China mainland
Ganzhou Jiangwu Ferrotungsten Co., Ltd.	China mainland
Ganzhou Seadragon W & Mo Co., Ltd.	China mainland
Global Tungsten & Powders LLC	United States
Guangdong Xianglu Tungsten Co., Ltd.	China mainland
H.C. Starck Tungsten GmbH	Germany
Hubei Green Tungsten Co., Ltd.	China mainland
Hunan Chenzhou Mining Co., Ltd.	China mainland
Hunan Shizhuyuan Nonferrous Metals Co., Ltd. Chenzhou Tungsten Products Branch	China mainland
Japan New Metals Co., Ltd.	Japan
Jiangwu H.C. Starck Tungsten Products Co., Ltd.	China mainland
Jiangxi Gan Bei Tungsten Co., Ltd.	China mainland
Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	China mainland
Jiangxi Xinsheng Tungsten Industry Co., Ltd.	China mainland
Jiangxi Yaosheng Tungsten Co., Ltd.	China mainland
Kennametal Fallon	United States
Kennametal Huntsville	United States
Lianyou Metals Co., Ltd.	Taiwan
Lianyou Resources Co., Ltd.	Taiwan
Malipo Haiyu Tungsten Co., Ltd.	China mainland



Tungsten (cont.)

Smelter or refiner name	Country or region
Masan High-Tech Materials	Vietnam
Niagara Refining LLC	United States
Philippine Bonway Manufacturing Industrial Corporation	Philippines
Philippine Chuangxin Industrial Co., Inc.	Philippines
Shinwon Tungsten (Fujian Shanghang) Co., Ltd.	China mainland
TANIOBIS Smelting GmbH & Co. KG	Germany
Tungsten Vietnam Joint Stock Company	Vietnam
Wolfram Bergbau und Hutten AG	Austria
Xiamen Tungsten (H.C.) Co., Ltd.	China mainland
Xiamen Tungsten Co., Ltd.	China mainland

