

SAMSUNG ELECTRONICS' RESPONSIBLE MINERALS REPORT

Samsung Electronics' Responsible Minerals Report 2022



SAMSUNG

Samsung Electronics’ Declaration on Conflict Minerals

Respecting and protecting human rights is a top priority for Samsung Electronics Co., Ltd. (“Samsung”) and this is codified and enforced through our Code of Conduct.

We do not tolerate human rights violations or environmental damage caused by mineral mining in conflict-affected and high-risk areas worldwide. We are committed to eliminating such violations and abuses, including child exploitation and sexual violence associated with mineral mining, and minimizing any harm to the health and safety of the workers at mining sites across the globe.

For that reason, we ensure that our supply chain complies with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (hereinafter referred to as the “OECD Due Diligence Guidance”). This requires all our business partners to abide by our Supplier Code of Conduct based on internationally accepted standards.

We work with other global companies by taking part in umbrella organizations such as the Responsible Business Alliance’s (RBA) Responsible Minerals Initiative (RMI) and the European Partnership for Responsible Minerals (EPRM), eliminating conflict minerals and supporting responsible mineral sourcing.

Through these efforts, we have established a conflict-free minerals management system that prohibits the use of minerals sourced from conflict-affected and high-risk areas in 10 African countries, including the Democratic Republic of the Congo . Additionally, we only use minerals from smelters certified by global, independent third-party organizations.

About this report

Purpose

In recent years, illegally mined minerals – mainly tantalum, tin, tungsten, gold, and cobalt – from conflict-affected and high-risk areas have come under persistent public scrutiny, which has led to a growing call for corporate action for responsible mineral sourcing. We understand that we must act responsibly as a global citizen in terms of minerals sourcing.

We utilize a wide variety of components that contain minerals such as tantalum, tin, tungsten, gold, and cobalt in manufacturing our products. Throughout this process, we continuously strive to build a responsible supply chain management system and invite our business partners to join our initiatives to advance human rights and protect the environment across conflict-affected and high-risk areas. This Responsible Minerals Report outlines our endeavors as a global company to pave the way forward toward creating a sustainable future for all humanity and the planet.

Scope and Period

All products commercially marketed to consumers and all materials directly purchased for manufacturing by Samsung Electronics are managed on a yearly basis. Accordingly, this report covers our activities from January 1 through December 31, 2021

Reporting Target

Product Group

Our standards for conflict minerals apply to all materials and components sourced from our suppliers and their subcontractors associated with our products manufactured and commercially marketed, regardless of where the products are manufacturing facilities are located.

Business divisions	Key products
DX (Device eXperience)	TVs, Monitors, Refrigerators, Washers, Air conditioners, HHP, PCs, Network systems, Ultrasound systems
DS (Device Solutions)	DRAM, SSDs, NAND flash, Mobile APs, Image sensors

Minerals

We actively work to avoid the use of any illegally mined minerals such as tantalum, tin, tungsten, gold, and cobalt from conflict-affected and high-risk areas. We continuously monitor the mineral sourcing practices of our suppliers and work to expand the scope of our monitoring efforts.

※ Main Minerals

Conflict Minerals

Conflict minerals, as defined by the US Dodd-Frank Act, include tantalum, tin, tungsten, and gold (3TG) that are illegally mined in the 10 African countries – the Democratic Republic of the Congo, Congo, the Central African Republic, South Sudan, Uganda, Rwanda, Burundi, Tanzania, Zambia, and Angola. The characteristics of each mineral are as follows.

① Tantalum (Symbol of element: Ta)

Tantalum is commonly found in electric and electronic products that require high reliability in extreme environments. The metal is typically used in electrical components and precision alloys that are applied to electronic, automotive, and aerospace products. The Democratic Republic of the Congo holds 70-80% of the world's tantalum reserves.

② Tin (Symbol of element: Sn)

Tin is mainly used in solders and extensively applied to many electronic products and components today. It is mostly produced in some Central African countries, China, and Indonesia.

③ Tungsten (Symbol of element: W)

Due to its strength and high melting point, tungsten is widely used in products of the electronics, automotive, and aerospace industries. China is the world's largest producer of tungsten with some produced in Central Africa.

④ Gold (Symbol of element: Au)

Gold is known for its outstanding malleability, ductility, thermal conductivity, and electrical conductivity, making it a widely used material in IT products, semiconductors, and medical devices. As a precious metal, gold is also used for decorations and accessories.

Gold is valuable, malleable, and convenient to transport. As a result, it is easy to smuggle, exchange worldwide, and trade anonymously for cash. Due to these characteristics, the supply chains of gold are complex and not transparent, leading to its use in funding organized crime and terrorism.

Other Minerals

Samsung focuses on other minerals other than 3TG if there are global issues such as child labor, human rights, and environmental issues, including conflict minerals. The characteristics of each mineral are as follows.

① Cobalt (Symbol of element: Co)

Cobalt is mostly used in lithium-ion batteries that constitute an integral part of electric vehicles, mobile phones, and laptop computers. It is also frequently used in adhesive joints of electric and electronic products. The Democratic Republic of the Congo, the world's largest producer of cobalt, holds 50% of global cobalt deposits. While cobalt is usually mass produced with machine equipment, it is also extracted through artisanal mining, which has raised concerns in the international community in relation to child labor and unsafe working conditions at cobalt mining sites.

② Mica

Mica, unlike other minerals, is a collection of rock-forming minerals such as calcium, magnesium, iron, and nitrogen. Depending on its layered structures, mica is categorized into thin flakes or sheets. The former is typically applied to cement and paint used for construction, while the latter is mainly used for electrical insulation and car paint.

90% of mica sheets consumed in the world are produced in India, and in recent years, many reports have raised the issue of illegal underage labor at mica mining sites.

③ Lithium (Symbol of element: Li)

Lithium is typically used in lithium-ion batteries, and the glass and ceramics industries are the main consumers of the mineral, which is used to process silica sand.

South American countries, including Argentina, Chile, and Bolivia, account for 70% of the global production of lithium. Reports have highlighted issues such as forced labor and environmental degradation caused by radioactive materials and byproducts of heavy metals at mining sites.

Samsung Electronics' Policy on Responsible Mineral Sourcing

We are committed to contributing to a more sustainable future for the public as well as our planet. We believe that establishing a responsible supply chain and encouraging the participation of our suppliers is the most important step we can take in minimizing the human rights violations and environmental degradation.

Based on the OECD Due Diligence Guidance, we manage our supply chain on an ongoing basis for ethical and responsible sourcing and mandate our suppliers to adopt our Supplier Code of Conduct, based on international industry standards. We also actively engage other companies and the relevant stakeholders in the industry to promote responsible sourcing of minerals through initiatives such as RBA, RMI, and EPRM.

Conflict Minerals

We are aware that in some areas of 10 African countries, including the Democratic Republic of the Congo, standards to protect the environment and human rights do not adequately safeguard all rights. Because of this, we have prohibited the use of conflict minerals such as tantalum, tin, tungsten, and gold that are mined illegally in conflict regions. To ensure that our suppliers are held to the highest standards, we conduct thorough reviews of the minerals used in their products in our supply chain management.

To establish a system for sourcing of conflict-free minerals, we use a due diligence process for conflict minerals that is in line with the OECD Due Diligence Guidance. Additionally, we demand that our suppliers work only with smelters that have received RMAP (Responsible Minerals Assurance Process) certifications, and we halt transactions that include any minerals provided by non RMAP-conformant smelters. By only using RMAP-certified smelters, we can ensure that the minerals we are sourcing have been mined ethically regardless of origin. However, we do not ban sourcing from any specific regions, including Africa, as this would undermine the progress that is being made to mine responsibly.

We also provide suppliers with clear guidelines and raise their awareness of conflict minerals through training and education support and conduct regular inspections on the use of conflict minerals throughout our supply chain by reviewing the information submitted by suppliers and by carrying out on-site inspections as needed for companies that require additional verification.

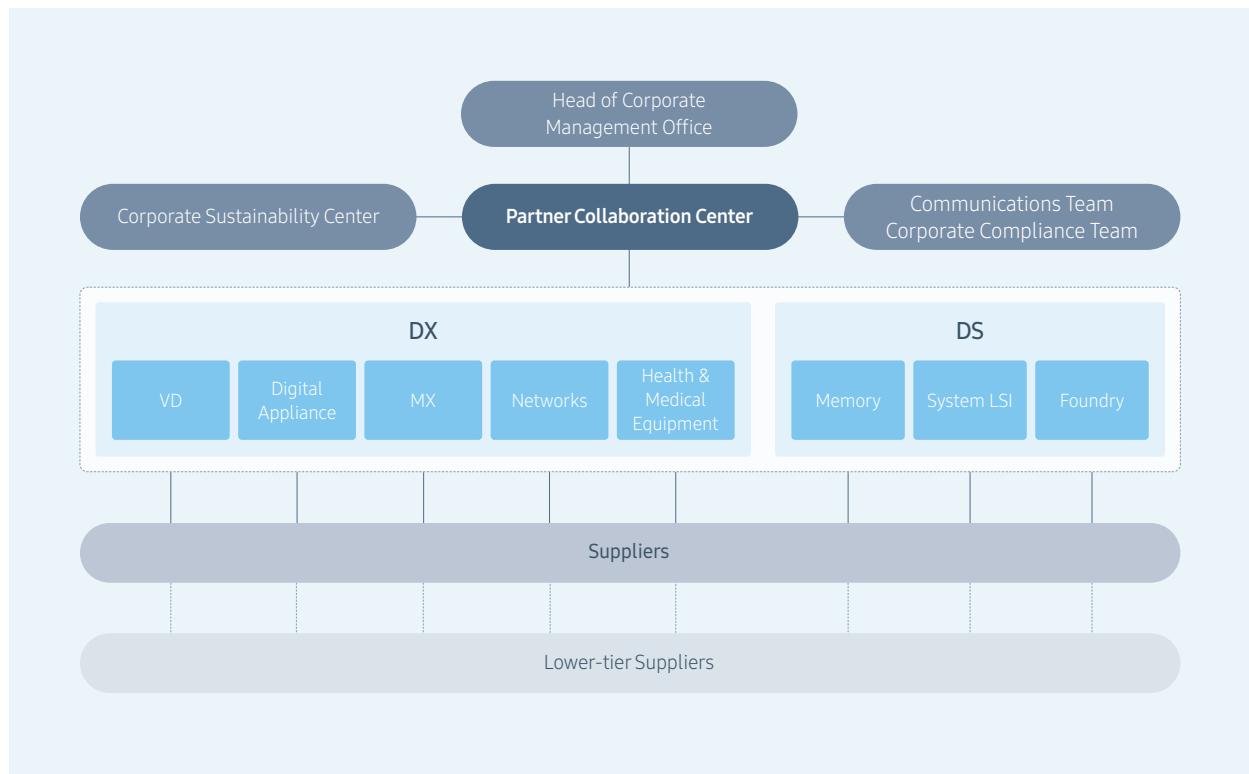
Other Minerals

In addition to our commitment to conflict-free minerals, we also manage the supply chain more extensively to monitor any mineral mining that has raised concerns regarding human rights violations or environmental destruction. In particular, we ensure that the issue of underage workers in cobalt mines in the Democratic Republic of the Congo is managed in accordance with the OECD Due Diligence Guidance. We are also mindful of other potential issues in mining and continually conduct diligent monitoring of these matters as well as collaborating with global organizations to consider additionally required responses.

We work to ensure that mining in our supply chain is not used for funding conflicts and is carried out in ways that respect human rights and the environment, while being mindful of social responsibilities.

Responsible Minerals Management Organization

Risks related to responsible minerals sourcing are managed by the Partner Collaboration Center under the direction of the Head of the Corporate Management Office. In addition, the responsible minerals personnel in each business division manages and monitors the conflict mineral risks in their respective division as well as those involving their suppliers. The Center also closely cooperates with relevant bodies within the company-wide risk management system, including the Corporate Sustainability Center, Corporate Compliance Team, and Communications Team.

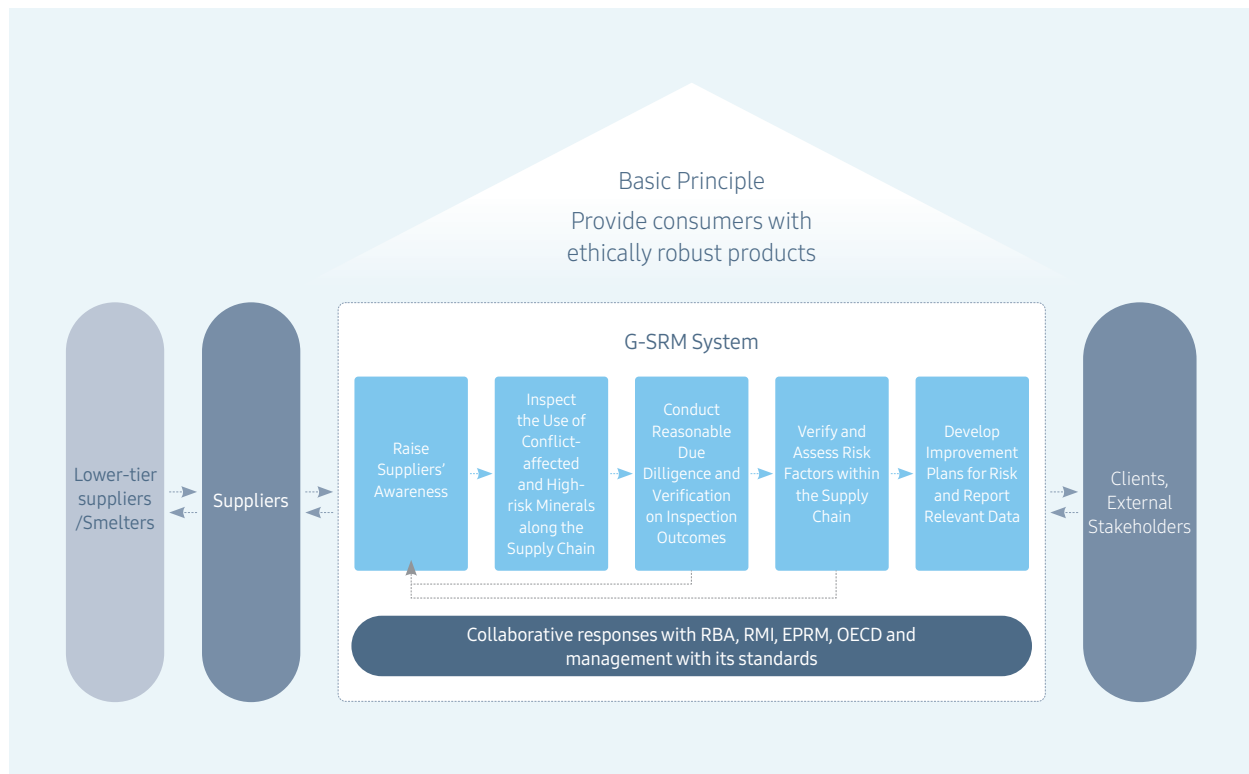


* DX : Device eXperience * DS : Device Solution * MX : Mobile eXperience

Responsible Minerals Management Process

Management System

We operate our minerals management process in accordance with the OECD Due Diligence Guidance. In addition, we proactively share our management status and findings with various stakeholders, including our customers. We also engage in global coalitions and partnerships to coordinate responses against conflict and other minerals and amplify the benefits of responsible sourcing around the world.



* G-SRM : Global Supplier Relationship Management System

Management Procedure

We ensure that the minerals used in our products have been mined ethically in accordance with the OECD Due Diligence Guidance and require that our suppliers adopt the Guidance as well.

Samsung Electronics' Responsible Minerals Management Process

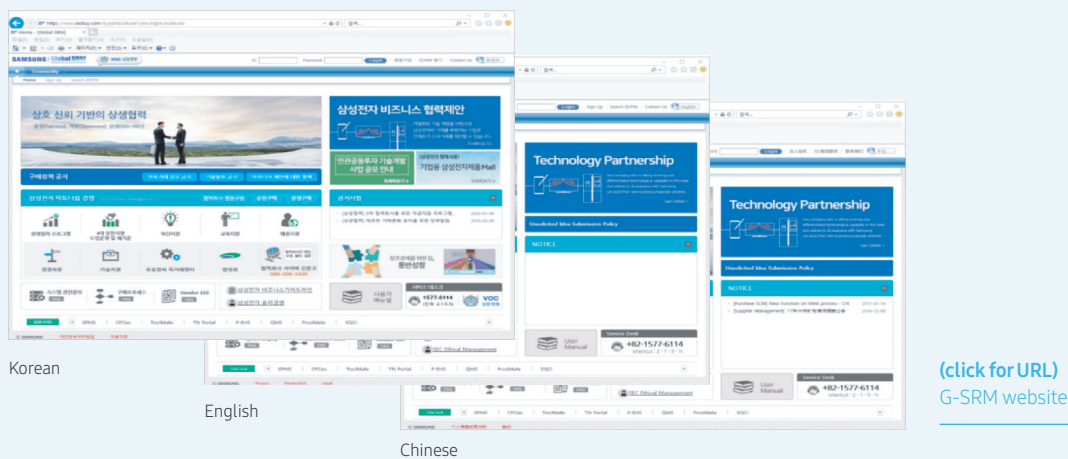
	Raise Suppliers' Awareness	- Require that all first-tier suppliers to commit to banning the use of conflict-affected and high-risk minerals by submitting a written pledge - Distribute the conflict-affected and high-risk minerals management guide, and support working-level training - Require that lower-tier suppliers expand their policies to ban the use of conflict-affected and high-risk minerals and to source ethically and responsibly
	Inspect the Use of Conflict-Affected and High-Risk Minerals in the Supply Chain	- Monitor data on all first-tier suppliers' use of conflict-affected and high-risk minerals, as well as smelters' use of such minerals in the supply chain
	Conduct Reasonable Due Diligence and Verify the Outcomes of Inspections	- Conduct on-site inspections for verification of data submitted by suppliers
	Verify and Assess Risk Factors Within the Supply Chain	- Categorize suppliers into four rating groups based on inspection results
	Develop Improvement Plans for Risks and Report Relevant Data	- Restrict transactions with suppliers who work with any smelters not certified by third-party organizations - Recommend smelters in the supply chain to become third-party certified

Samsung Electronics' Activities by Stage

Step 1: Raise Suppliers' Awareness

We require that all of our suppliers pledge in writing not to use minerals that contribute to human rights violations and environmental problems in conflict-affected and high-risk areas and monitor their practices through an integrated system.

※ Samsung Electronics' Global Supplier Relationship Management (G-SRM) System



In line with our responsible mineral sourcing policy, we demand that our suppliers extend the ban on the use of minerals from conflict-affected and high-risk areas to their own suppliers.

※ Declaration of non-use (DNU) of conflict minerals for suppliers

The image shows three versions of the Declaration of non-use (DNU) of conflict minerals for suppliers form, presented in Korean, English, and Chinese. Each form includes a title, a paragraph explaining the policy, a section for the supplier's declaration, and a signature line. The Korean version is titled '광고 및 인접 분쟁지역 광물 사용을 준수 선언서', the English version is 'Declaration of non-use of conflict minerals', and the Chinese version is '关于遵守不使用刚果及刚果冲突地区矿物政策的声明书'. The forms are designed to be filled out by suppliers to declare their commitment to not using conflict minerals.

As part of our conflict-free minerals management, we provide both online and offline training for our employees who are responsible for global procurement. The online courses on conflict minerals are required programs for all procurement employees. In 2021, our training sessions went fully online due to the prolonged pandemic, and a total of 181 procurement employees completed the training program on conflict and responsible minerals policy and our management process.

We also focus on training and guidance for our suppliers. Our Conflict Minerals Management Guidance includes the conflict minerals policy we share with our suppliers. To further the awareness of our suppliers, as of 2021, we provided training sessions to a total of 370 employees of 349 suppliers. These sessions covered our conflict minerals policy, instructions on how to use the conflict minerals management system, and the process required to become an RMAP-certified smelter. In particular, we offered additional training programs for suppliers who were found to have vulnerabilities during our on-site assessments in order to assist them in closing the gaps.

※ Conflict minerals training completed (2017–2021)

(persons)

Year	2017	2018	2019	2020	2021
Total	1,836	864	594	440	551
Samsung Electronics	717	652	212	127	181
Suppliers	1,119	212	382	313	370

Step 2: Inspect the Use of Conflict-Affected and High-Risk Minerals within the Supply Chain

Using the RMI's templates on conflict and responsible minerals, the Conflict Minerals Reporting Template (CMRT) and Extended Minerals Reporting Template (EMRT), we collected data from all suppliers that we conduct business with through our Global Supplier Relationship Management (G-SRM) system on conflict and responsible minerals as well as other information on smelters within the supply chain. In addition, we required our suppliers to extend the ban on conflict minerals to their own suppliers in accordance with our conflict minerals policy.

※ Status of smelters within the supply chain (2017-2021)

(number of smelters)

Year	2017	2018	2019	2020	2021
Tantalum	42	40	40	38	38
Tin	71	73	76	53	55
Tungsten	41	41	41	42	40
Gold	101	104	104	107	107
Cobalt	-	-	30	27	35
Mica	-	-	-	-	10
Lithium	-	-	-	-	16

Step 3: Conduct Reasonable Due Diligence and Verify the Outcomes of Inspections

After an immediate internal review of the data submitted by suppliers, in 2021, we conducted on-site inspections on 493 global suppliers that required follow-up inspection to verify both the reliability of their data and the implementation of conflict-mineral-related policies.

Since 2020, we have moved on-site inspections online due to the COVID-19 pandemic, while also expanding the number of suppliers covered in the inspection to ensure that the inspection format change poses minimal risk to the reliability of the assessment results.

In 2021, online inspections were conducted on new suppliers, suppliers who answered insufficiently on the survey of the year, and low performers from the previous year.

※ No. of on-site supplier inspections (2017-2021)

(number of on-site inspections)

Year	2017	2018	2019	2020	2021
On-site inspection	252	244	225	427	493

* In 2020 and 2021, inspections were conducted via "contact-free" review of evidential documents due to COVID-19.

※ No. of on-site inspections by region in 2021

(number of on-site inspections)

Total	Korea	China	Japan	Southeast/ West Asia	North America	Latin America	Africa
493	89	111	6	161	56	67	3

According to the results, 88% of suppliers maintained good management controls over their operations and complied with 80% of the standards of the inspections. By attribute, 91% of suppliers inspected their own suppliers using RMI standards, and 93% reported the inspection results to Samsung Electronics without any data omissions. These results demonstrate the strong management of our suppliers on their sub-tier suppliers related to information on conflict minerals. However, some were found to have not properly conducted on-site inspections on their suppliers due to the prolonged pandemic, which is expected to improve in line with the COVID-19 situation.

In addition, we implemented follow-up improvement measures to assist suppliers that were found to have vulnerabilities in the inspections in closing their gaps. As a result, all suppliers eventually satisfied the criteria required for their management of conflict minerals. In addition, we will continue to monitor the progress of the suppliers who were initially rated "insufficient" in 2021 by including them in our on-site inspections again in 2022.

All information on our on-site inspections, including history and results, are systematically managed and recorded via G-SRM.

Step 4: Verify and Assess Risk Factors within the Supply Chain

We manage the responsible minerals information submitted by our suppliers through G-SRM – our integrated procurement system – and track information on conflict minerals in real-time by each material unit purchased.

If a supplier fails to submit the information for a specific material or includes a mineral supplied by any non-RMAP-certified smelter, we immediately block their access to the procurement system. We then send a notification email to the person of contact from Samsung Electronics and the supplier for the procurement of responsible minerals to ensure that they take action for improvement. Afterwards, we send out periodic notices and follow-up reminders to encourage prompt action.

In addition, we conduct on-site inspections on suppliers that have confirmed vulnerabilities in their management standards and process. We apply different follow-up measures based on the credibility of the submitted data and actual conditions on site. We instruct low-ranked suppliers to submit supporting documents and/or provide them with on-site guidance when necessary. Through such activities, we assist our suppliers in the review of their conflict minerals policies, organizational management, and conflict minerals information management systems. This helps them improve in their areas of vulnerability, which in turn enables them to enhance their management capabilities.

As a result, in 2021, all product categories mass produced by Samsung Electronics are in full compliance with our Conflict Minerals Management Guidance.

※ Responsible mineral compliance rate by product category

	VD	Digital Appliance	MX	Networks	Medical Device	Memory Semi conductor	LSI System LSI	Foundry	LED
Key product category	TVs, monitors	Refrigerators, laundry machines	Smart phones, tablets	Repeaters, modem chips	Ultra sound systems	DRAM, SSD	APs, CMOS	Mobile SoC	LED
Compliance rate	100%	100%	100%	100%	100%	100%	100%	100%	100%

Step 5: Develop Improvement Plans for Risks and Report Relevant Data

We require all suppliers to pledge not to use conflict minerals. We continuously monitor in real time each material via the G-SRM system to block any materials from access to our supply chain if they use minerals from non-RMAP-certified sources.

We also periodically monitor the RMI website for any changes in the RMAP list of certified smelters and update the information in G-SRM. We immediately suspend the contracts of any materials associated with uncertified smelters and share the information with relevant suppliers and business divisions to incentivize and support the needed improvements. In 2021, 12 smelters were removed from the RMAP list, and we immediately shared the information with 609 relevant suppliers and ensured that they took follow-up measures related to the smelters.

※ Smelters removed from the RMAP-conformant list in 2021

Mineral	Reference No.	Smelter Name
Gold	CID000343	Daye Non-Ferrous Metals Mining Ltd.
Gold	CID000711	Heraeus Precious Metals GmbH & Co. KG
Gold	CID001029	Kyrgyzaltyn JSC
Gold	CID001909	Great Wall Precious Metals Co., Ltd. of CBPM
Gold	CID002816	PT Sukses Inti Makmur
Gold	CID002850	AU Traders and Refiners
Tin	CID001421	PT Belitung Industri Sejahtera
Tin	CID001428	PT Bukit Timah
Tin	CID001457	PT Panca Mega Persada
Tin	CID002180	Yunnan Tin Company Limited
Tin	CID002455	CV Venus Inti Perkasa
Tin	CID002570	CV Ayi Jaya

We have established a range of voice of customer channels and provided 24/7 support to assist suppliers in resolving their feedback related to conflict minerals. In 2021, we received and handled 334 cases in total.

※ No. of VoC cases handled in 2021

(number of cases)

	Total	Survey	Operating System	Smelter	Data transmission	Letter of consent	Other
Total	334	134	100	12	14	13	61
Conflict minerals	320	130	91	12	13	13	61
Other minerals	14	4	9	-	1	-	-

We verify the presence of any conflict minerals in our products and the origins of such minerals using the information on smelters submitted by our suppliers. If the country of origin is uncertain, or if the smelters have not been certified by the RMAP, we investigate whether conflict minerals have been used and request that such smelters obtain RMAP certification. Thanks to these efforts, in 2021, all suppliers sourced minerals from RMAP-certified smelters.

※ Conflict minerals-related RMAP certification of smelters in the supply chain

(number of smelters as of 2021)

	Total	Tantalum	Tin	Tungsten	Gold
No. of smelters	240	38	55	40	107
RMAP certification rate	100%	100%	100%	100%	100%

※ Responsible minerals-related RMAP certification of smelters

(number of smelters as of 2021)

	Cobalt	Mica	Lithium
No. of smelters	35	10	16

We disclose all relevant information in a transparent manner every year through our website, Sustainability Management Report, and Responsible Minerals Report. In addition, we actively respond to direct requests from various global stakeholders for related information.

※ External inquiries handled on the responsible mineral sourcing of suppliers (2017-2021)

(number of cases)

Year	2017	2018	2019	2020	2021
Customer	91	85	190	242	332
NGO/Rating agency, etc.	10	9	17	11	14

Through prior consultation with our suppliers, we have received their consent to disclose their information on the use of conflict minerals to the public and provide that information to Samsung Electronics' stakeholders.

(단위: 건수)

Cooperative Activities with External Parties

To effectively operate responsible minerals sourcing policies and address related issues, we work with companies in the same tech industry and actively gather insights from relevant stakeholders. We also engage in a variety of initiatives, including social contribution activities and private-public partnership programs, in a bid to seek fundamental solutions for issues related to human rights and environmental degradation.

Responsible Minerals Initiative (RMI)

The RMI is a coalition of global companies dedicated to addressing issues related to the sourcing of minerals from conflict-affected and high-risk areas. As an RMI member, we strive to identify the origins of minerals that move through the global supply chain. To this end, we have developed the CMRT and EMRT – our templates on conflict and responsible minerals – to survey our suppliers and enhance the collection and disclosure of information on smelters in the supply system. Leveraging the RMAP, a validation program for responsible minerals sourcing, we encourage smelters that have been validated as conflict-free to undergo independent third-party certification.



Moreover, as an RMI Steering Committee Member, we are actively engaging in establishing the RMI industrial management standards for responsible materials and continuously improving the RMAP and other related programs of the RMI, while communicating with external stakeholders and experts to discuss their concerns or seek advice.

※ RMAP Assessment Introduction

The flagship program of the RMI, the Responsible Minerals Assurance Process (RMAP) takes a unique approach to helping companies make informed choices about responsibly sourced minerals in their supply chains. Focusing on a “pinch point” (a point with relatively few actors) in the global metals supply chain, the RMAP uses an independent third-party assessment of smelter/refiner management systems and sourcing practices to validate conformance with RMAP standards. The assessment employs a risk-based approach to validate smelters' company-level management processes for responsible mineral procurement.

The RMAP standards are developed to meet the requirements of the OECD Due Diligence Guidance, the Regulation (EU) 2017/821 of the European Parliament and the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act.

* Source: RMI Homepage(<http://www.responsiblemineralsinitiative.org/responsible-minerals-assurance-process/>)

European Partnership for Responsible Minerals (EPRM)

The EPRM is a multi-stakeholder partnership set up in May of 2016 that serves as a platform for cooperation between EU governments, companies, and civil society to enhance the transparency of supply chains dealing with conflict minerals and responsible minerals. We joined the EPRM in December 2018 as part of our commitment to complying with regulations on conflict and responsible minerals sourcing and fulfilling our social responsibility together with industry partners. With the support of governments and companies around the world, the EPRM advance a variety of initiatives including conducting fact-finding research and suggesting solutions to human rights issues in conflict-affected areas such as the Democratic Republic of the Congo.



The EPRM finances different projects in conflict-affected and high-risk areas (CAHRAs) under the aim of:

- Raising awareness about responsible production and regulations at mine sites;
- Improving their productivity and capacity for more responsible mining; and
- Enabling producers to access formal markets.

Encouraging Korean Urban Smelters to Participate in RMAP Certification

As part of our ongoing commitment to responsible minerals management, we have strengthened our waste management standards to ensure that waste generated at manufacturing sites in Korea is transferred only to RMAP-certified smelters. We are also encouraging RMAP participation from the mining industry in Korea, which includes smelters and refiners that recover metal substances from collected e-waste.

Industry Collaboration Project for Sustainable Cobalt Mining: Cobalt for Development

We undertook the Cobalt for Development project in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Samsung SDI, BMW Group, and BASF, to contribute to resolving human rights abuses and environmental destruction incurred by cobalt mining in DR Congo.

This project was initiated to seek solutions for improving the work environments of small cobalt mines and the living conditions of local mining communities. In 2020, Volkswagen joined the project as a new partner.

As of December 2021, the project has supported 14 artisanal mining cooperative through safety training and protective gears.

The project also conducted agricultural and financial training for local residents and supported the foundation of 72 microbusinesses.

"Cobalt for Development" Project Started Trainings for Mining Cooperatives in Kolwezi, Democratic Republic of Congo

Source: Reuters 10/2020

Audio 10/2020

Trainings for twelve artisanal mining cooperatives involve more than 1,000 miners

Community activities have already reached more than 1,800 people
Volkswagen joined cross-industry initiative of BMW, BASF, Samsung SDI and Samsung Electronics

The cross-industry initiative "Cobalt for Development" has started trainings for twelve artisanal mining cooperatives in October in the Democratic Republic of Congo (DRC). The trainings cover major environmental, social and governance aspects for responsible mining practices. This includes mine site management and legal compliance, human rights, health and safety as well as environmental management. The initiative intends to train more than 1,000 artisanal cobalt miners by mid-2021. BMW, BASF, Samsung SDI and Samsung Electronics had initiated the project "Cobalt for Development" to better understand and address challenges for responsible artisanal mining in the region. Since January 2019, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is commissioned to implement the project together with non-governmental organizations. Volkswagen recently joined the initiative as a new partner. "For our e-mobility strategy, sustainable and responsible sourcing of raw materials is of utmost importance. In this regard, cobalt plays a vital role, despite a decreasing amount of the raw material in newer generations of batteries for electric vehicles. Through this initiative, we would like to add to our sustainable raw material strategy by delivering impact on the ground – in close cooperation with strong partners," said Ulrich Denker, Head of Procurement Strategy of Volkswagen Group.

In 2019, the project began testing how living and working conditions in the artisanal cobalt mines and in the surrounding communities can be improved. The project has developed interactive training methods and materials that can be adapted to any artisanal cobalt mining cooperative in DRC. The training curricula offer practical risk mitigation guidelines for occupational and environmental risks. This was facilitated with Congolese and international law and standards explained. Shown afterwards, project director "Cobalt for Development". The project implements the trainings in close collaboration with artisanal mining cooperatives and with SAGROD, the government authority in charge of artisanal and small-scale mining. "This partnership with experienced artisanal mining actors is the essence of our approach," Shown afterwards emphasized. "We jointly implement our training methodologies and strictly avoid duplicating existing services." On-site coaching will begin in the upcoming months to support technical improvements in the areas of occupational safety, environmental management and legal conformity at mine sites.

Creating additional income opportunities for families in artisanal mining areas will reduce the dependence on their children contributing to family income and enable them to attend school. Therefore "Cobalt for Development" has been carrying out impactful community activities in Kolwezi and neighboring villages with its partner, the Pauline/Good Shepherd International Foundation since September 2019. So far, more than 1,800 residents of these communities – children, their parents and other community members – have benefited from improved access to education and new income opportunities. A new seven-classroom building for Gicela's public elementary and secondary school was inaugurated on October 26. The former school building will be renovated and converted into a vocational training center. The members of two women associations already successfully completed a vocational training course in breadmaking. Trainings in sewing and financial literacy as well as the establishment of money savings groups support further income-generating activities. Additional activities include training in positive parenting, women's rights and conflict resolution.

While the partners do not intend to operate artisanal mines, it is planned to test at a specific pilot site under what conditions responsible artisanal mining could be viable. The project has so far screened 38 artisanal mines to identify a suitable site that fulfills two minimum requirements: legally as well as accessible and sufficient cobalt deposits. One of these mines also currently under evaluation is located near to Gicela. "Cobalt for Development" is engaging with private and public concession holders of cobalt mines to select a viable, legally operating pilot site. Learnings and insights gained from trainings and community engagement will contribute to a better understanding of responsible artisanal mining and how to improve the working and living conditions for miners and their communities. The project also contributes to the goals of global initiatives, such as the Global Battery Alliance, to foster sustainable supply chains.



Key Achievements in Responsible Minerals Sourcing in 2021

Category			Status
Conflict minerals	CMRT survey	No. of smelters	240
		Tantalum	38
		Tin	55
		Tungsten	40
		Gold	107
	On-site inspection		493
Responsible minerals	EMRT survey	No. of smelters	Cobalt 35
			Mica 10
			Lithium 16
Training	No. of trainees		551
	Samsung Electronics		181
	Suppliers		370
External requests (customers)	No. of suppliers		185
	No. of requests		332
	No. of models		406

※ 3TG mineral (Tantalum, Tin, Tungsten, Gold) sourcing countries (159 in total)

Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bolivia (Plurinational State of), Bosnia & Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cameroon, Canada, Cayman Islands, Chile, China, Colombia, Congo (Democratic Republic of the), Costa Rica, Croatia, Cuba, Curacao, Cyprus, Czechia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, French Guiana, Gabon, Georgia, Germany, Ghana, Greece, Grenada, Guatemala, Guernsey, Guinea, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Ivory Coast, Japan, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macau, Madagascar, Malaysia, Mali, Malta, Mauritania, Mexico, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russian Federation, Rwanda, Saint Kitts and Nevis, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Sint Maarten, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, St Lucia, St Vincent and Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Turks and Caicos, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Uzbekistan, Venezuela, Vietnam, Virgin Islands, Yemen, Zambia, Zimbabwe

Smelter and Refiner List in Samsung Electronics' supply chain(as of 2021)

3TG Smelter and Refiner List

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
1	Gold	CID000015	Advanced Chemical Company	USA	Conformant	LR, R/S	N/A
2	Gold	CID000019	Aida Chemical Industries Co., Ltd.	Japan	Conformant	R/S	N/A
3	Gold	CID000035	Allgemeine Gold-und Silberscheideanstalt A.G.	Germany	Conformant	See aggregated data below for RJC Sourcing	N/A
4	Gold	CID000041	Almalyk Mining and Metallurgical Complex (AMMC)	Uzbekistan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
5	Gold	CID000058	AngloGold Ashanti Corrego do Sitio Mineracao	Brazil	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
6	Gold	CID000077	Argor-Heraeus S.A.	Switzerland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
7	Gold	CID000082	Asahi Pretec Corp.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
8	Gold	CID000090	Asaka Riken Co., Ltd.	Japan	Conformant	R/S	N/A
9	Gold	CID000113	Aurubis AG	Germany	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
10	Gold	CID000128	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Philippines	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
11	Gold	CID000157	Boliden AB	Sweden	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
12	Gold	CID000176	C. Hafner GmbH + Co. KG	Germany	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
13	Gold	CID000185	CCR Refinery - Glencore Canada Corporation	Canada	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
14	Gold	CID000189	Cendres + Metaux S.A.	Switzerland	Conformant	See aggregated data below for RJC Sourcing	N/A
15	Gold	CID000233	Chimet S.p.A.	Italy	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
16	Gold	CID000264	Chugai Mining	Japan	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
17	Gold	CID000359	DSC (Do Sung Corporation)	Korea	Conformant	R/S	N/A
18	Gold	CID000362	DODUCO Contacts and Refining GmbH	Germany	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
19	Gold	CID000401	Dowa	Japan	Conformant	LR, R/S	See aggregated data below for LBMA Good Delivery Sourcing
20	Gold	CID000425	Eco-System Recycling Co., Ltd. East Plant	Japan	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
21	Gold	CID000493	JSC Novosibirsk Refinery	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
22	Gold	CID000689	LT Metal Ltd.	Korea	Conformant	LR, R/S	L1
23	Gold	CID000694	Heimerle + Meule GmbH	Germany	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
24	Gold	CID000707	Heraeus Metals Hong Kong Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
25	Gold	CID000801	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
26	Gold	CID000807	Ishifuku Metal Industry Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
27	Gold	CID000814	Istanbul Gold Refinery	Turkey	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
28	Gold	CID000823	Japan Mint	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
29	Gold	CID000855	Jiangxi Copper Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
30	Gold	CID000920	Asahi Refining USA Inc.	USA	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
31	Gold	CID000924	Asahi Refining Canada Ltd.	Canada	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
32	Gold	CID000929	JSC Uralelectromed	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
33	Gold	CID000937	JX Nippon Mining & Metals Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
34	Gold	CID000957	Kazzinc	Kazakhstan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
35	Gold	CID000969	Kennecott Utah Copper LLC	USA	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
36	Gold	CID000981	Kojima Chemicals Co., Ltd.	Japan	Conformant	LR, R/S	LR, HR, R/S; Additionally, see aggregated data below for LBMA Good Delivery Sourcing
37	Gold	CID001078	LS-NIKKO Copper Inc.	Korea	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
38	Gold	CID001113	Materion	USA	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
39	Gold	CID001119	Matsuda Sangyo Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
40	Gold	CID001147	Metalor Technologies (Suzhou) Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
41	Gold	CID001149	Metalor Technologies (Hong Kong) Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
42	Gold	CID001152	Metalor Technologies (Singapore) Pte., Ltd.	Singapore	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
43	Gold	CID001153	Metalor Technologies S.A.	Switzerland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
44	Gold	CID001157	Metalor USA Refining Corporation	USA	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
45	Gold	CID001161	Metalurgica Met-Mex Penoles S.A. De C.V.	Mexico	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
46	Gold	CID001188	Mitsubishi Materials Corporation	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
47	Gold	CID001193	Mitsui Mining and Smelting Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
48	Gold	CID001204	Moscow Special Alloys Processing Plant	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
49	Gold	CID001220	Nadir Metal Rafineri San. Ve Tic. A.S.	Turkey	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
50	Gold	CID001236	Navoi Mining and Metallurgical Combinat	Uzbekistan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
51	Gold	CID001259	Nihon Material Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
52	Gold	CID001325	Ohura Precious Metal Industry Co., Ltd.	Japan	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
53	Gold	CID001326	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
54	Gold	CID001352	PAMP S.A.	Switzerland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
55	Gold	CID001386	Prioksky Plant of Non-Ferrous Metals	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
56	Gold	CID001397	PT Aneka Tambang (Persero) Tbk	Indonesia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
57	Gold	CID001498	PX Precinox S.A.	Switzerland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
58	Gold	CID001512	Rand Refinery (Pty) Ltd.	South Africa	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
59	Gold	CID001534	Royal Canadian Mint	Canada	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
60	Gold	CID001555	Samduck Precious Metals	Korea	Conformant	LR, R/S	N/A
61	Gold	CID001585	SEMPA Joyeria Plateria S.A.	Spain	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
62	Gold	CID001622	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
63	Gold	CID001736	Sichuan Tianze Precious Metals Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
64	Gold	CID001756	SOE Shyolkovsky Factory of Secondary Precious Metals	Russia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
65	Gold	CID001761	Solar Applied Materials Technology Corp.	Taiwan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
66	Gold	CID001798	Sumitomo Metal Mining Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
67	Gold	CID001875	Tanaka Kikinzoku Kogyo K.K.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
68	Gold	CID001916	Shandong Gold Smelting Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
69	Gold	CID001938	Tokuriki Honten Co., Ltd.	Japan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
70	Gold	CID001955	Torecom	Korea	Conformant	R/S	N/A
71	Gold	CID001980	Umicore S.A. Business Unit Precious Metals Refining	Belgium	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
72	Gold	CID001993	United Precious Metal Refining, Inc.	USA	Conformant	LR, R/S	N/A
73	Gold	CID002003	Valcambi S.A.	Switzerland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
74	Gold	CID002030	Western Australian Mint (T/a The Perth Mint)	Australia	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
75	Gold	CID002100	Yamakin Co., Ltd.	Japan	Conformant	L1, R/S	L1, R/S
76	Gold	CID002129	Yokohama Metal Co., Ltd.	Japan	Conformant	R/S	N/A

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
77	Gold	CID002224	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
78	Gold	CID002243	Gold Refinery of Zijin Mining Group Co., Ltd.	China	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
79	Gold	CID002290	SAFINA A.S.	Czechia	Conformant	R/S	LR, R/S
80	Gold	CID002314	Umicore Precious Metals Thailand	Thailand	Conformant	See aggregated data below for RJC Sourcing	N/A
81	Gold	CID002459	Geib Refining Corporation	USA	Conformant	R/S	N/A
82	Gold	CID002509	MMTC-PAMP India Pvt., Ltd.	India	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
83	Gold	CID002511	KGHM Polska Miedz Spolka Akcyjna	Poland	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
84	Gold	CID002516	Singway Technology Co., Ltd.	Taiwan	Conformant	L1, R/S	N/A
85	Gold	CID002560	Al Etihad Gold Refinery DMCC	UAE	Conformant	HR, R/S	N/A
86	Gold	CID002561	Emirates Gold DMCC	UAE	Conformant	LR, HR, CC, R/S	N/A
87	Gold	CID002580	T.C.A S.p.A	Italy	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
88	Gold	CID002582	REMONDIS PMR B.V.	Netherland	Conformant	R/S	See aggregated data below for LBMA Good Delivery Sourcing
89	Gold	CID002605	Korea Zinc Co., Ltd.	Korea	Conformant	LR, R/S	N/A
90	Gold	CID002606	Marsam Metals	Brazil	Conformant	LR, R/S	See aggregated data below for LBMA Good Delivery Sourcing
91	Gold	CID002615	TOO Tau-Ken-Altyn	Kazakhstan	Conformant	See aggregated data below for LBMA Good Delivery Sourcing	N/A
92	Gold	CID002761	SAAMP	France	Conformant	See aggregated data below for RJC mined gold	N/A
93	Gold	CID002762	L'Orfebre S.A.	Andorra	Conformant	HR, CC, R/S	See aggregated data below for LBMA Good Delivery Sourcing
94	Gold	CID002763	8853 S.p.A.	Italy	Conformant	See aggregated data below for RJC Sourcing	N/A
95	Gold	CID002765	Italpreziosi	Italy	Conformant	See aggregated data below for LBMA Good Delivery Sourcing and RJC Sourcing	N/A
96	Gold	CID002777	SAXONIA Edelmetalle GmbH	Germany	Conformant	LR, R/S	LR, R/S
97	Gold	CID002778	WIELAND Edelmetalle GmbH	Germany	Conformant	See aggregated data below for RJC Sourcing	N/A
98	Gold	CID002779	Ogussa Österreichische Gold-und Silber-Scheideanstalt GmbH	Austria	Conformant	See aggregated data below for RJC Sourcing	N/A
99	Gold	CID002863	Bangalore Refinery	India	Conformant	LR, R/S	N/A
100	Gold	CID002918	SungEel HiMetal Co., Ltd.	Korea	Conformant	R/S	N/A
101	Gold	CID002919	Planta Recuperadora de Metales SpA	Chile	Conformant	LR	N/A
102	Gold	CID002973	Safimet S.p.A	Italy	Conformant	See aggregated data below for RJC mined gold	N/A
103	Gold	CID003424	Eco-System Recycling Co., Ltd. North Plant	Japan	Conformant	R/S	N/A
104	Gold	CID003425	Eco-System Recycling Co., Ltd. West Plant	Japan	Conformant	R/S	N/A
105	Gold	CID000711	Heraeus Germany GmbH Co. KG	Germany	Conformant	LR, R/S	LR, R/S; Additionally, see aggregated data below for LBMA Good Delivery Sourcing

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
106	Gold	CID003189	NH Recytech Company	Korea	Conformant	LR, R/S	N/A
107	Gold	CID003575	Metal Concentrators SA (Pty) Ltd.	South Africa	Conformant	See aggregated data below for RJC Sourcing	N/A
108	Tantalum	CID000092	Asaka Riken Co., Ltd.	Japan	Conformant	R/S	N/A
109	Tantalum	CID000211	Changsha South Tantalum Niobium Co., Ltd.	China	Conformant	L1, R/S	L1, L2, CC, R/S, HR
110	Tantalum	CID000291	Guangdong Rising Rare Metals-EO Materials Ltd.	China	Conformant	L1	N/A
111	Tantalum	CID000456	Exotech Inc.	USA	Conformant	LR, R/S	LR, CC, DRC, HR, R/S
112	Tantalum	CID000460	F&X Electro-Materials Ltd.	China	Conformant	LR, HR, DRC, CC	LR, CC, DRC, HR, R/S
113	Tantalum	CID000616	XIMEI RESOURCES (GUANGDONG) LIMITED	China	Conformant	LR, HR, CC, DRC	N/A
114	Tantalum	CID000914	JiuJiang JinXin Nonferrous Metals Co., Ltd.	China	Conformant	LR, HR, DRC, CC	L1
115	Tantalum	CID000917	Jiujiang Tanbre Co., Ltd.	China	Conformant	DRC, HR, R/S, LR	LR, HR, CC, R/S, DRC
116	Tantalum	CID001076	LSM Brasil S.A.	Brazil	Conformant	LR	N/A
117	Tantalum	CID001163	Metallurgical Products India Pvt., Ltd.	India	Conformant	LR, R/S	L1
118	Tantalum	CID001175	Mineracao Taboca S.A.	Brazil	Conformant	L1	N/A
119	Tantalum	CID001192	Mitsui Mining and Smelting Co., Ltd.	Japan	Conformant	LR, R/S	L1
120	Tantalum	CID001200	NPM Silmet AS	Estonia	Conformant	R/S, LR	LR, R/S
121	Tantalum	CID001277	Ningxia Orient Tantalum Industry Co., Ltd.	China	Conformant	LR, HR, DRC, CC	DRC, CC, HR, LR, R/S
122	Tantalum	CID001508	QuantumClean	USA	Conformant	R/S	N/A
123	Tantalum	CID001522	Yanling Jincheng Tantalum & Niobium Co., Ltd.	China	Conformant	LR	L1, LR, HR, CC, DRC, R/S
124	Tantalum	CID001769	Solikamsk Magnesium Works OAO	Russia	Conformant	L1	N/A
125	Tantalum	CID001869	Taki Chemical Co., Ltd.	Japan	Conformant	R/S	N/A
126	Tantalum	CID001891	Telex Metals	USA	Conformant	LR, R/S	LR, HR, DRC, CC, R/S
127	Tantalum	CID001969	Ulba Metallurgical Plant JSC	Kazakhstan	Conformant	LR, HR, CC, DRC, R/S	LR
128	Tantalum	CID002492	Hengyang King Xing Lifeng New Materials Co., Ltd.	China	Conformant	LR, HR, CC, DRC	N/A
129	Tantalum	CID002504	D Block Metals, LLC	USA	Conformant	LR, R/S	LR, CC, DRC, R/S, HR
130	Tantalum	CID002505	FIR Metals & Resource Ltd.	China	Conformant	LR, R/S	L1, L2, CC, DRC, R/S
131	Tantalum	CID002506	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	China	Conformant	LR	N/A
132	Tantalum	CID002508	XinXing HaoRong Electronic Material Co., Ltd.	China	Conformant	LR	LR, HR, DRC, R/S, L1
133	Tantalum	CID002512	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	China	Conformant	LR	LR, HR, DRC, R/S
134	Tantalum	CID002539	KEMET de Mexico	Mexico	Conformant	LR, R/S	LR, CC, DRC, HR, R/S
135	Tantalum	CID002544	TANIOBIS Co., Ltd.	Thailand	Conformant	LR, CC, DRC, HR	LR, HR, CC, DRC, R/S
136	Tantalum	CID002545	TANIOBIS GmbH	Germany	Conformant	LR, CC, DRC, HR, R/S	LR, CC, DRC, HR, R/S
137	Tantalum	CID002547	H.C. Starck Hermsdorf GmbH	Germany	Conformant	LR, R/S	HR, DRC, CC, LR, R/S
138	Tantalum	CID002548	H.C. Starck Inc.	USA	Conformant	LR, R/S	LR, HR, CC, DRC, R/S
139	Tantalum	CID002549	TANIOBIS Japan Co., Ltd.	Japan	Conformant	LR, R/S	LR, CC, DRC, R/S
140	Tantalum	CID002550	TANIOBIS Smelting GmbH & Co. KG	Germany	Conformant	LR, CC, DRC, HR, R/S	LR, CC, DRC, HR, R/S
141	Tantalum	CID002557	Global Advanced Metals Boyertown	USA	Conformant	DRC, CC, HR, LR, R/S	LR, CC, DRC, HR, R/S
142	Tantalum	CID002558	Global Advanced Metals Aizu	Japan	Conformant	R/S, LR	DRC, CC, HR, LR, R/S

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
143	Tantalum	CID002707	Resind Industria e Comercio Ltda.	Brazil	Conformant	LR	LR
144	Tantalum	CID002842	Jiangxi Tuohong New Raw Material	China	Conformant	LR, HR	N/A
145	Tantalum	CID002847	Meta Materials	Macedonia	Conformant	LR, R/S	LR, R/S
146	Tin	CID000228	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	China	Conformant	L1, R/S	L1
147	Tin	CID000292	Alpha	USA	Conformant	LR, R/S	LR, CC, DRC, HR, R/S
148	Tin	CID000402	Dowa	Japan	Conformant	R/S	N/A
149	Tin	CID000438	EM Vinto	Bolivia	Conformant	L1	N/A
150	Tin	CID000468	Fenix Metals	Poland	Conformant	LR, R/S	N/A
151	Tin	CID000538	Gejiu Non-Ferrous Metal Processing Co., Ltd.	China	Conformant	L1	N/A
152	Tin	CID000555	Gejiu Zili Mining And Metallurgy Co., Ltd.	China	Conformant	L1	N/A
153	Tin	CID000760	Huichang Jinshunda Tin Co., Ltd.	China	Conformant		
154	Tin	CID000942	Gejiu Kai Meng Industry and Trade LLC	China	Conformant	LR	N/A
155	Tin	CID001070	China Tin Group Co., Ltd.	China	Conformant	LR, R/S	N/A
156	Tin	CID001105	Malaysia Smelting Corporation (MSC)	Malaysia	Conformant	L1, HR, CC, DRC, R/S	L1, R/S
157	Tin	CID001142	Metallic Resources, Inc.	USA	Conformant	LR, R/S	LR, R/S
158	Tin	CID001173	Mineracao Taboca S.A.	Brazil	Conformant	L1	N/A
159	Tin	CID001182	Minsur	Perú	Conformant	L1	N/A
160	Tin	CID001191	Mitsubishi Materials Corporation	Japan	Conformant	R/S	N/A
161	Tin	CID001231	Jiangxi New Nanshan Technology Ltd.	China	Conformant	L1, R/S	N/A
162	Tin	CID001314	O.M. Manufacturing (Thailand) Co., Ltd.	Thailand	Conformant	R/S	N/A
163	Tin	CID001337	Operaciones Metalurgicas S.A.	Bolivia	Conformant	LR	N/A
164	Tin	CID001399	PT Artha Cipta Langgeng	Indonesia	Conformant	LR	N/A
165	Tin	CID001402	PT Babel Inti Perkasa	Indonesia	Conformant	L1	N/A
166	Tin	CID001406	PT Babel Surya Alam Lestari	Indonesia	Conformant	LR	N/A
167	Tin	CID001453	PT Mitra Stania Prima	Indonesia	Conformant	LR	N/A
168	Tin	CID001458	PT Prima Timah Utama	Indonesia	Conformant	LR	N/A
169	Tin	CID001460	PT Refined Bangka Tin	Indonesia	Conformant	LR	L1
170	Tin	CID001463	PT Sariwiguna Binasentosa	Indonesia	Conformant	LR	N/A
171	Tin	CID001468	PT Stanindo Inti Perkasa	Indonesia	Conformant	L1	N/A
172	Tin	CID001477	PT Timah Tbk Kundur	Indonesia	Conformant	LR	N/A
173	Tin	CID001482	PT Timah Tbk Mentok	Indonesia	Conformant	LR	N/A
174	Tin	CID001539	Rui Da Hung	Taiwan	Conformant	L1, R/S	L1
175	Tin	CID001758	Soft Metais Ltda.	Brazil	Conformant	LR, R/S	N/A
176	Tin	CID001898	Thaisarco	Thailand	Conformant	LR, CC, HR, DRC, R/S	LR, CC, DRC, HR, R/S
177	Tin	CID001908	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	China	Conformant	L1, R/S	L1, R/S
178	Tin	CID002036	White Solder Metalurgia e Mineracao Ltda.	Brazil	Conformant	L1	L1
179	Tin	CID002158	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	China	Conformant	L1	N/A
180	Tin	CID002468	Magnu's Minerais Metais e Ligas Ltda.	Brazil	Conformant	L1, R/S	N/A

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
181	Tin	CID002500	Melt Metais e Ligas S.A.	Brazil	Conformant	L1	N/A
182	Tin	CID002503	PT ATD Makmur Mandiri Jaya	Indonesia	Conformant	LR	N/A
183	Tin	CID002517	O.M. Manufacturing Philippines, Inc.	Philippines	Conformant	R/S	R/S
184	Tin	CID002593	PT Rajehan Ariq	Indonesia	Conformant	LR	N/A
185	Tin	CID002706	Resind Industria e Comercio Ltda.	Brazil	Conformant	LR	LR
186	Tin	CID002773	Metallo Belgium N.V.	Belgium	Conformant	LR, R/S	LR, HR, CC, DRC, R/S
187	Tin	CID002774	Metallo Spain S.L.U.	Spain	Conformant	LR, R/S	LR, R/S
188	Tin	CID002834	Thai Nguyen Mining and Metallurgy Co., Ltd.	Viet Nam	Conformant	LR	N/A
189	Tin	CID002835	PT Menara Cipta Mulia	Indonesia	Conformant	LR	N/A
190	Tin	CID002844	HuiChang Hill Tin Industry Co., Ltd.	China	Conformant	L1	N/A
191	Tin	CID003116	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	China	Conformant	LR, R/S	N/A
192	Tin	CID003190	Chifeng Dajingzi Tin Industry Co., Ltd.	China	Conformant	L1, R/S	N/A
193	Tin	CID003205	PT Bangka Serumpun	Indonesia	Conformant	L1	N/A
194	Tin	CID003325	Tin Technology & Refining	USA	Conformant	LR, R/S	LR, CC, HR, DRC, R/S
195	Tin	CID003379	Ma'anshan Weitai Tin Co., Ltd.	China	Conformant	R/S	N/A
196	Tin	CID003381	PT Rajawali Rimba Perkasa	Indonesia	Conformant	LR	N/A
197	Tin	CID003387	Luna Smelter, Ltd.	Rwanda	Conformant	HR, CC	N/A
198	Tin	CID003397	Yunnan Yunfan Non-ferrous Metals Co., Ltd.	China	Conformant	LR, R/S	N/A
199	Tin	CID003582	Fabrica Auricchio Industria e Comercio Ltda.	Brazil	Conformant	LR	N/A
200	Tin	CID001490	PT Tinindo Inter Nusa	Indonesia	Conformant	L1	N/A
201	Tungsten	CID000004	A.L.M.T. Corp.	Japan	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	L1, CC, HR, R/S
202	Tungsten	CID000105	Kennametal Huntsville	USA	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	L1
203	Tungsten	CID000218	Guangdong Xianglu Tungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	See aggregated data below for TI-CMC Sourcing
204	Tungsten	CID000258	Chongyi Zhangyuan Tungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
205	Tungsten	CID000568	Global Tungsten & Powders Corp.	USA	Conformant	R/S, CC, HR and Mined (See aggregated data below for TI-CMC Sourcing)	LR, CC, HR, R/S
206	Tungsten	CID000766	Hunan Chenzhou Mining Co., Ltd.	China	Conformant	LR	N/A
207	Tungsten	CID000769	Hunan Chunchang Nonferrous Metals Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
208	Tungsten	CID000825	Japan New Metals Co., Ltd.	Japan	Conformant	R/S, LR	LR, HR, CC, R/S and Mined; See aggregated data below for TI-CMC Sourcing
209	Tungsten	CID000875	Ganzhou Huaxing Tungsten Products Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
210	Tungsten	CID000966	Kennametal Fallon	USA	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	L1, CC, R/S
211	Tungsten	CID002044	Wolfram Bergbau und Hutten AG	Austria	Conformant	R/S, LR, HR, CC and Mined (See aggregated data below for TI-CMC Sourcing)	(See aggregated data below for TI-CMC Sourcing)
212	Tungsten	CID002082	Xiamen Tungsten Co., Ltd.	China	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	LR, R/S, DRC, CC, HR

No	Metal	ID	Smelter Name	Location	RMAP status	Direct Sourcing	Indirect Supplying Smelter Sourcing
213	Tungsten	CID002315	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing, R/S	N/A
214	Tungsten	CID002316	Jiangxi Yaosheng Tungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
215	Tungsten	CID002317	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
216	Tungsten	CID002318	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
217	Tungsten	CID002319	Malipo Haiyu Tungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
218	Tungsten	CID002320	Xiamen Tungsten (H.C.) Co., Ltd.	China	Conformant	R/S, HR, DRC, CC, and Mined (See aggregated data below for TI-CMC Sourcing)	LR, R/S, HR, CC
219	Tungsten	CID002321	Jiangxi Gan Bei Tungsten Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
220	Tungsten	CID002494	Ganzhou Seadragon W & Mo Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
221	Tungsten	CID002502	Asia Tungsten Products Vietnam Ltd.	Vietnam	Conformant	L1, HR, CC, DRC	N/A
222	Tungsten	CID002513	Chenzhou Diamond Tungsten Products Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
223	Tungsten	CID002541	H.C. Starck Tungsten GmbH	Germany	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	N/A
224	Tungsten	CID002542	H.C. Starck Smelting GmbH & Co. KG	Germany	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	LR, HR, DRC, CC
225	Tungsten	CID002543	Masan High-Tech Materials	Vietnam	Conformant	HR, CC, R/S	N/A
226	Tungsten	CID002551	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
227	Tungsten	CID002579	Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji	China	Conformant		
228	Tungsten	CID002589	Niagara Refining LLC	USA	Conformant	R/S, HR, CC, LR (See aggregated data below for TI-CMC Sourcing)	R/S
229	Tungsten	CID002645	Ganzhou Haichuang Tungsten Co., Ltd.	China	Conformant	LR	LR, R/S
230	Tungsten	CID002649	Hydrometallurg, JSC	Russia	Conformant	R/S and Mined (See aggregated data below for TI-CMC Sourcing)	L1, R/S
231	Tungsten	CID002724	Unecha Refractory metals plant	Russia	Conformant	L1, R/S	N/A
232	Tungsten	CID002827	Philippine Chuangxin Industrial Co., Inc.	Philippines	Conformant	R/S	N/A
233	Tungsten	CID002830	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	China	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
234	Tungsten	CID002833	ACL Metais Eireli	Brazil	Conformant	L1	N/A
235	Tungsten	CID002843	Woltech Korea Co., Ltd.	Korea	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
236	Tungsten	CID002845	Moliren Ltd.	Russia	Conformant	See aggregated data below for TI-CMC Sourcing	N/A
237	Tungsten	CID003388	KGETS CO., LTD.	Korea	Conformant	R/S	N/A
238	Tungsten	CID003401	Fujian Ganmin RareMetal Co., Ltd.	China	Conformant	LR	N/A
239	Tungsten	CID003407	Lianyou Metals Co., Ltd.	Taiwan	Conformant	R/S	N/A
240	Tungsten	CID002641	China Molybdenum Tungsten Co., Ltd.	China	Conformant	LR	N/A

※ Source : <http://www.responsiblemineralsinitiative.org/rcoi-data/>

* Data Key

L1	Level 1 countries are not identified as conflict regions or plausible areas of smuggling or export from the DRC and its nine adjoining countries.
L2	Level 2 countries are known or plausible countries for smuggling, export out of region or transit of materials containing tantalum, tin, tungsten or gold.
CC	Covered countries are the 9 countries adjoining the Democratic Republic of Congo.
DRC	The Democratic Republic of Congo
Low Risk (LR)	Countries identified by smelters and refiners as low-risk. Those marked with an ** have been disclosed by some smelters to be low-risk but disclosed by other smelters to be high-risk.
High Risk (HR)	Countries identified by smelters and refiners as Conflict-Affected and High-Risk (HR). Those marked with an ** have been disclosed by some smelters to be low-risk but disclosed by other smelters to be high-risk.
Recycled Scrap (R/S)	Secondary sources of material (non-mined) Gold only: Those followed by (HR) have been disclosed by refiners to be high-risk. Those followed with an ** have been disclosed by some refiners to be low-risk but disclosed by other refiners to be high-risk.

Known Countries from which Conformant Gold Refiners Source

L1	Brazil, GhanaBrazil, GhanaBrazil, Ghana
L2	South Africa
CC	RwandaRwanda, Tanzania, Uganda
DRC	
Low Risk (LR)	Argentina, Brazil, Canada, Ghana**, Guinea**, Guyana**, Japan, Mexico**, Peru**, Russian, Federation, United States of America, Sweden, South Africa**, Cuba
High Risk (HR)	Benin, Bolivia (Plurinational State of), Brazil**, Colombia, Ecuador, Eritrea, Ghana**, Guinea**, Guyana**, Mexico**, Mozambique, Niger, Peru**, Rwanda, Sierra Leone, South Africa, Swaziland, Tanzania, Uganda
Recycled Scrap (R/S)	Andorra, Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Barbados, Belgium, Benin (HR), Brazil**, Canada, Cayman Islands, Chile**, China, Colombia (HR), Curacao, Cyprus, Czechia, Denmark, Dominica, Dominican Republic**, El Salvador (HR), Estonia, Finland, France, Germany, Greece, Grenada, Guatemala (HR), Honduras (HR), Hong Kong**, Hungary, India**, Indonesia**, Ireland, Israel**, Italy, Japan, Jordan (HR), Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mexico (HR), Monaco, Netherlands, Norway, Panama**, Peru, Philippines**, Poland, Portugal, Puerto Rico, Romania, Russian Federation, Saint Kitts and Nevis, Saudi Arabia (HR), Singapore**, Sint Maarten, Slovakia, South Africa**, South Korea, Spain, St Vincent and the Grenadines, Sweden, Switzerland**, Taiwan, Thailand, Trinidad and Tobago, Turkey**, Turks and Caicos, United Arab Emirates**, United Kingdom**, United States of America**, Uzbekistan (HR), Venezuela, Vietnam

Known Countries from which LBMA Good Delivery List Refiners Source - Mined Material (Provided by LBMA)

All COI	Argentina, Armenia, Australia, Azerbaijan, Bolivia (Plurinational State of), Botswana, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Dominican Republic, Ecuador, Ethiopia, Fiji, Finland, French Guiana, Georgia, Germany, Ghana, Guatemala, Guinea, Guyana, Honduras, India, Indonesia, Ivory Coast, Japan, Kazakhstan, Kenya, Kyrgyzstan, Laos, Liberia, Malaysia, Mali, Mauritania, Mexico, Mongolia, Montenegro, Morocco, New Zealand, Nicaragua, Oman, Papua New Guinea, Peru, Philippines, Russian Federation, Saudi Arabia, Senegal, Serbia, Singapore, Slovakia, Solomon Islands, South Africa, South Korea, Spain, Sudan, Suriname, Sweden, Tajikistan, Turkey, Uruguay, Uzbekistan, Zimbabwe
CC	Tanzania, Zambia
DRC	

* Notes

* Dates marked with an asterisk represent smelters that are currently enrolled in the risk-based audit program and have not undergone an on-site audit for this compliance period. While these smelters have sent in their Line Item Summary and Declaration of Sourcing to show their full sourcing information, the information provided has not been validated by a third party auditor.

Known Countries from which LBMA Good Delivery List Refiners Source - Recycled Material (Provided by LBMA)

All COI	Argentina, Armenia, Australia, Austria, Bahrain, Belarus, Belgium, Bolivia, Bosnia & Herzegovina, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Cayman Islands, Chile, China, Colombia, Curacao, Czechia, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, Finland, France, Gabon, Georgia, Germany, Ghana, Greece, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Ivory Coast, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Macau, Malaysia, Malta, Mexico, Monaco, Morocco, Netherlands, New Zealand, Norway, Pakistan, Panama, Papua New Guinea, Peru, Philippines, Poland, Portugal, Puerto Rico, Romania, Russian Federation, San Marino, Saudi Arabia, Senegal, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, St Lucia, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Thailand, Togo, Tunisia, Turkey, United Arab Emirates, Ukraine, United Kingdom of Great Britain and Northern Ireland, Uruguay, United States of America, Uzbekistan, Venezuela, Vietnam, Zimbabwe
CC	Tanzania
DRC	

Known Countries from which RJC Refiners Source - Mined Material (Provided by RJC)

All COI	Argentina, Armenia, Azerbaijan, Botswana, Brazil, Burkina Faso, Canada, Chile, Colombia, Costa Rica, Cote d'Ivoire, Cyprus, Dominican Republic, Ecuador, Finland, French Guiana, Georgia, Ghana, Honduras, Indonesia, Malaysia, Mali, Mexico, Mongolia, Morocco, Nicaragua, Oman, Peru, Philippines, Saudi Arabia, Senegal, Suriname, Sweden, Tajikistan, United States of America
CC	Tanzania, Zambia
DRC	

Known Countries from which Conformant Tantalum Smelters Source

Please refer to the Data Key above for descriptions of each RCOI designation.

L1	Brazil, China, Colombia, Ethiopia, France, Malaysia, Nigeria, Russian Federation, Sierra Leone, Spain, Thailand
L2	Mozambique
CC	Burundi, Rwanda, Uganda
DRC	Congo, Democratic Republic of the
Low Risk (LR)	Australia, Bolivia, Brazil**, China, Ethiopia**, Germany, India**, Madagascar, Malaysia, Mozambique, Namibia, Nigeria**, Russian Federation, Sierra Leone**, Spain, Thailand, Zimbabwe, United States of America
High Risk (HR)	Brazil**, Burundi, Congo, Democratic Republic of the, Ethiopia**, India**, Myanmar, Nigeria**, Rwanda, Sierra Leone**, Uganda
Recycled Scrap (R/S)	Austria, Belarus, Canada, China, Czechia, Estonia, France, Germany, Hong Kong, India, Indonesia, Ireland, Israel, Japan, Kazakhstan, Mexico, Malaysia, Netherlands, South Korea, Spain, Switzerland, Taiwan, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America

Known Countries from which Conformant Tin Smelters Source

Please refer to the Data Key above for descriptions of each RCOI designation.

L1	Australia, Bolivia (Plurinational State of), Brazil, China, Colombia, Indonesia, Malaysia, Myanmar, Peru, Russian Federation, Taiwan, United Kingdom of Great Britain and Northern Ireland, Venezuela
L2	
CC	Burundi, Rwanda, Uganda
DRC	Congo, Democratic Republic of the
Low Risk (LR)	Australia, Belgium, Brazil**, China**, Germany, Indonesia, Laos, Malaysia, Mongolia, Peru, Portugal, Russia**, South Korea, Spain, Thailand, USA, Vietnam
High Risk (HR)	Brazil**, Burundi, China**, Congo, Democratic Republic of the, Indonesia, Myanmar, Nigeria, Russia**, Rwanda, Thailand, Uganda
Recycled Scrap (R/S)	Angola, Argentina, Australia, Austria, Bangladesh, Belarus, Belgium, Benin, Bolivia, Brazil, Bulgaria, Canada, Chile, China, Croatia, Czechia, Congo, Democratic Republic of the, Cyprus, Denmark, Egypt, El Salvador, Estonia, Finland, France, Gabon, Germany, Ghana, Greece, Guernsey, Guinea, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Latvia, Lebanon, Libya, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Poland, Portugal, Philippines, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Serbia, Senegal, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sudan, Sweden, Switzerland, Taiwan, Tanzania, Thailand, Togo, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Virgin Islands, Yemen

Known Countries from which Conformant Tungsten Industry-Conflict Minerals Council (TI-CMC) Smelters Source - Mined Material (Provided by TI-CMC)

Please refer to the Data Key above for descriptions of each RCOI designation.

All COI	Australia, Austria, Bolivia, Brazil, China, Kazakhstan, Krygyzstan, Malaysia, Mexico, Mongolia, Myanmar, Nigeria, Peru, Portugal, Russian Federation, Spain, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America, Uzbekistan, Vietnam, Zimbabwe
CC	Burundi, Rwanda, Uganda
DRC	Congo, Democratic Republic of the

Known Countries from which Conformant Tungsten Smelters Source

Please refer to the Data Key above for descriptions of each RCOI designation.

L1	Bolivia, Brazil, China, Colombia, Mongolia, Myanmar, Portugal, Russian Federation, United States of America, Uzbekistan
L2	
CC	Burundi, Rwanda, Uganda
DRC	Congo, Democratic Republic of the
Low Risk (LR)	Austria, China, Mongolia, Philippines, Portugal, Russian Federation, Thailand
High Risk (HR)	Brazil**, Burundi, Congo, Democratic Republic of the, Rwanda, Uganda
Recycled Scrap (R/S)	Austria, Belgium, Brazil, Canada, China, Czechia, France, Germany, Hong Kong, Ireland, Israel, Japan, Latvia, Russia, Singapore, South Korea, Spain, Taiwan, Thailand, United Arab Emirates, United States of America, Vietnam

Cobalt Smelter List

No	ID	Smelter Name	Location
1	CID003209	Gem (Jiangsu) Cobalt Industry Co., Ltd.	China
2	CID003210	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	China
3	CID003212	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	China
4	CID003215	Tianjin Maolian Science & Technology Co., Ltd.	China
5	CID003219	Hunan Brunp Recycling Technology Co., Ltd.	China
6	CID003221	Nantong Xinwei Nickel Cobalt Technology Development Co., Ltd.	China
7	CID003225	Zhejiang Huayou Cobalt Company Limited	China
8	CID003226	Umicore Finland Oy	Finland
9	CID003227	Gangzhou Yi Hao Umicore Industry Co.	China
10	CID003228	Umicore Olen	Belgium
11	CID003255	Quzhou Huayou Cobalt New Material Co., Ltd.	China
12	CID003261	Kamoto Copper Company	Congo, Democratic Republic of the
13	CID003264	Chemaf Etoile	Congo, Democratic Republic of the
14	CID003278	Sumitomo Metal Mining	Japan
15	CID003279	Mine de Bou-Azzer	Morocco
16	CID003280	Compagnie de Tifnout Tiranimine	Morocco
17	CID003291	Guangdong Jiana Energy Technology Co., Ltd.	China
18	CID003293	Jiangsu Xiongfeng Technology Co., Ltd.	China
19	CID003338	SungEel HiTech Co.,Ltd.	Korea
20	CID003376	XTC New Energy Materials (Xiamen) LTD.	China
21	CID003377	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	China
22	CID003378	Jingmen GEM Co., Ltd.	China
23	CID003384	Ganzhou Highpower Technology Co., Ltd.	China
24	CID003390	NORILSK NICKEL HARJAVALTA OY	Finland
25	CID003398	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	China
26	CID003404	Hunan Yacheng New Materials Co., Ltd.	China
27	CID003406	Murrin Murrin Nickel Cobalt Plant	Australia
28	CID003411	Hunan Zoomwe New Energy Science & Technology Co., Ltd.	China
29	CID003415	Cosmo EcoChem Co., Ltd.	Korea
30	CID003423	Chemaf Usoke	Congo, Democratic Republic of the
31	CID003465	Ningbo Hubang New Material Co., Ltd.	China
32	CID003467	Hunan Shiji Yintian New Material Co., Ltd.	China
33	CID003470	Hunan Jinxin New Material Holding Co., Ltd.	China
34	CID003473	CoreMax Corporation	Taiwan
35	CID003526	Zhejiang Zhongjin Greatpower Lithium-Battery Industrial Corporation Co., Ltd.	China

Mica Operator List

No	ID	Operator Name	Location
1	CID003512	Yamaguchi Mica	Japan
2	CID003514	The JAI Mica Supply Company Limited	India
3	CID003595	Shijiazhuang Shuozhan Mineral Products Co. LTD.	China
4	CID003596	NBC (ASIA) CO.,LTD.	Thailand
5	CID003625	SIDDHI EXIMP ENTERPRISES	India
6	CID003652	Ruby Mica	India
7	CID003664	JSC "Sludyanaya Fabrika"	Russia
8	CID003730	Lingshou Huajing Mica Co., Ltd.	China
9	CID003734	Tri-H	Madagascar
10	CID003779	UENO FINE CHEMICALS INDUSTRY, LTD.	Japan

Lithium Smelter List

No	ID	Smelter Name	Location
1	CID003670	Fujhara Refinery	UAE
2	CID003712	Guizhou Red Star Electronic Material Co., Ltd.	China
3	CID003714	Jiangxi Ganfeng Lithium Co., Ltd.	China
4	CID003715	Ningdu Ganfeng Lithium Co., Ltd.	China
5	CID003717	Sichuan Zhiyuan Lithium Industries Co., Ltd.	China
6	CID003720	Tianqi Lithium (Shehong) Co., Ltd.	China
7	CID003745	POSCO	Korea
8	CID003758	Wodgina Lithium	Australia
9	CID003759	Kemerton	Australia
10	CID003760	Kwinina	Australia
11	CID003821	Olaroz Lithium Facility	Australia
12	CID003824	Albermarle U.S. Inc (King's Mountain)	USA
13	CID003826	FMC	Unknown
14	CID003889	Sumiko Kunitomi Electronics Co., Ltd.	Japan
15	CID003896	Niihama Electronics Co., Ltd.	Japan
16	CID003954	Sociedad Quimica y Minera/SQM Lithium (Salar Del Carmen Plant)	Canada

SAMSUNG