# Samsung Electronics' Responsible Minerals Report

June 2020

**Samsung Electronics** 

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### Declaration of Conflict Mineral Free

Samsung Electronics is committed to minimizing the harmful social and environmental impacts of mining operations, which are susceptible to human rights violations and abuses, child exploitation, and sexual violence.

Samsung Electronics takes very seriously the issues of human rights violations and the environmental damage caused by mineral mining in conflict-affected and high-risk areas around the world, including Africa. Therefore, the company ensures that its supply chain is in compliance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, and requires all business partners to observe the Samsung Electronics Supplier Code of Conduct, which is based on international guidelines.

Looking beyond conflict minerals, Samsung Electronics works with companies throughout the industry to address responsible mineral concerns by taking part in global collaborative platforms such as the Responsible Minerals Initiative(RMI) and the European Partnership for Responsible Minerals(EPRM).

Samsung Electronics has also established a conflict-free 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.

#### □ Overview

#### - Purpose of Issuance

In recent years, minerals mined (mainly tantalum, tin, tungsten, gold, and cobalt) in conflict-affected and high-risk areas have come under persistent public scrutiny, leading to a growing call for companies to implement responsible sourcing policies in their mineral supply chains.

Products manufactured by Samsung Electronics utilize various components that contain minerals such as tantalum, tin, tungsten, gold, and cobalt, which have unique properties necessary for the functionality of electrical and electronic products manufactured by the company.

The Responsible Minerals Report outlines Samsung Electronics' efforts to minimize the negative social and environmental impacts of mining operations, which are susceptible to human rights infringement and environmental destruction.

#### - Reporting Period

Samsung Electronics publishes its Responsible Minerals Report on a yearly basis. This report covers activities that took place from January 1 through December 31, 2019.

#### - Target Product Group

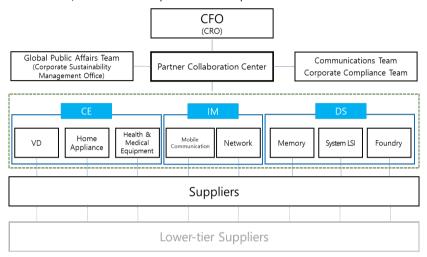
All materials and components used for products manufactured and commercially marketed around the world by Samsung Electronics.

Business division	Key products				
CE	TVs, Monitor, Refrigerator, Washer & Dryer, Air conditioners, Ultrasound System, etc.				
IM	HHP, network systems, PC, etc.				
DS	DRAM, SSDs, NAND Flash, mobile APs, image sensors, etc.				

<sup>\*</sup> CE (Consumer Electronics), IM (IT & Mobile Communications), DS (Device Solutions)

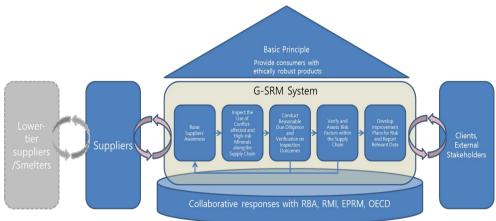
#### - Organization

Risks related to responsible minerals sourcing are managed by the Partner Collaboration Center under the direction of the Chief Risk Officer (CRO), who also serves as the company's CFO. And, also, the responsible minerals personnel in each business division manage and monitor departments' and suppliers' related risks. The Center also cooperates with relevant bodies within the company-wide risk management system, including the Corporate Sustainability Management Office, the Communications Team, and the Corporate Compliance Team.



#### - Management System

Samsung Electronics operates its minerals management system in accordance 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"), encompassing smelters and refiners in the supply chain. The company actively shares the system's findings with various stakeholders, including customers. It also partners with global organizations to coordinate responses to conflict mineral risks, and to amplify the effects of responsible sourcing.



- \* RBA: Responsible Business Alliance
- \* RMI: Responsible Minerals Initiative
- \* EPRM: European Partnership for Responsible Minerals
- \* OECD: Organization for Economic Cooperation and Development

#### - Management Procedure

Samsung Electronics ensures that minerals used in its products have been mined ethically in accordance with the OECD Due Diligence Guidance, and requires its suppliers to adopt the Guidance as well.

## Samsung Electronics' Due Diligence Mineral Process (Based on the OECD Due Diligence Guidance)

#### Step 1: Raise Suppliers' Awareness

- Secure a commitment to ban the use of conflict-affected and high-risk minerals from all first-tier suppliers
- Distribute the conflict-affected areas and high-risk minerals management quide, and support working-level training
- Request that lower-tier suppliers expand their policies to ban the use of conflict-affected and high-risk minerals, and to source ethically and responsibly

#### Step 2: 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

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

- Conduct on-site inspections of data submitted by suppliers
- Identify and share best practices related to suppliers' management of conflictaffected and high-risk minerals

#### Step 4: Verify and Assess Risk Factors Within the Supply Chain

 Categorize suppliers into four ratings groups based on inspection results (based on the credibility of submitted data, and the management level of conflict-affected and high-risk minerals)

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

- Restrict transactions with suppliers who work with non-third-party-audited smelters
- Recommend that smelters in the supply chain become third-party certified

#### - Samsung Electronics' Policy to Responsible Sourcing

As a global company, we strive to do our best to be responsible for the future of humanity and the environment. Human rights violations and environmental degradation caused by the mining of minerals in Indonesia and conflict-affected regions of Africa are important global challenges. As part of our commitment to addressing these issues, we have established a responsible supply chain management system, and we are encouraging more suppliers to participate. We take our role seriously in terms of sourcing ethically and responsibly throughout our supply chain, which includes ensuring that the minerals used in our products meet the OECD Due Diligence Guidance. We also mandate that our supplier companies adopt Samsung's Supplier Code of Conduct, which reflects international guidelines. We are also actively engaging with companies in our sector and related stakeholders to promote the responsible sourcing of minerals through RBA, RMI, and EPRM.

#### Conflict Minerals

Samsung Electronics considers the environmental deterioration and human rights violations that have taken place in conflict areas in 10 African countries, including the Democratic Republic of the Congo, as serious ethical issues. Because of this, we have banned the use of conflict minerals – including tantalum, tin, tungsten, and gold – that are mined unethically in conflict regions. We manage the supply chain based on the principle of ethical distribution. To ensure that our suppliers are held to the highest standards, we conduct thorough examinations of the minerals used in their products. To establish a conflict-free system, we have implemented a process of due diligence for conflict minerals that is in line with the OECD Due Diligence Guidance. Additionally, we encourage suppliers to partner with smelters certified by the RMAP(Responsible Minerals Assurance Process), and require uncertified smelters in our supply chain to become certified as well. Samsung Electronics provides suppliers with clear guidelines, and raises awareness of conflict mineral issues through education and support. We also conduct regular audits on the use of conflict minerals throughout the supply chain by reviewing information submitted by suppliers, and by conducting on-site audits of companies whose systems require additional verification.

#### Responsible Minerals

Responsible minerals are defined as minerals that give rise to potential human rights violations or environmental destruction during the mining process. Samsung Electronics has been reviewing its use of cobalt in response to the issue of underage workers in cobalt mines in the Congo. We are a member of the RMI, which is working to establish industry—wide governance standards for responsible minerals, including cobalt. As part of this initiative, over the past several years, we have taken steps to improve our supply chain and provide support to local communities in the Congo, and we will continue those efforts until the issue has been resolved.

#### ☐ Samsung Electronics' Due Diligence Procedure & Activities

#### Step 1: Raising Awareness of Suppliers

Samsung Electronics requires all suppliers to pledge in writing not to use minerals that may cause human rights violations and environmental issues in conflict-affected and high-risk areas. Suppliers are also required to consent to monitoring of their compliance through an integrated system.

X Samsung Electronics' Global Supplier Relationship Management system



\* G-SRM website : www.secbuy.com

Consistent with its mineral sourcing policy, Samsung Electronics demands that suppliers extend its ban on the use of minerals originating from conflict-affected and high-risk areas to their own suppliers.

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







Samsung Electronics has continuously enhanced its internal capabilities for managing conflict minerals, and offers online and offline training to educate employees who are responsible for global procurement. The company has expanded online training opportunities to all procurement employees, having designated conflict mineral courses as mandatory on-the-job training, in addition to providing suppliers with systematic support and guidelines.

As of 2019, a total of 3,157 Samsung Electronics employees had completed online and offline training sessions on conflict minerals policy (on a cumulative basis).

Moreover, Samsung Electronics has developed its Conflict Minerals Management Guidance, which includes a conflict minerals policy to share with all suppliers. The company has also supported its suppliers in terms of conducting internal training and putting the Guidance into practice.

To further raise supplier awareness, as of 2019, Samsung Electronics had provided training sessions to a total of 2,311 supplier executives and employees. The sessions covered Samsung's conflict minerals policy, provided instructions on using the conflict minerals management system, and discussed the process required to become an RMAP-certified smelter. In particular, the company offered separate training sessions for suppliers that had been found to have vulnerabilities during on-site assessments.

X Supplier training milestone (2015–2019) (persons)

	Total	2015	2016	2017	2018	2019
Total	5,468	1,439	735	1,836	864	594
Samsung Electronics	3,157	1,096	480	717	652	212
Suppliers	2,311	343	255	1,119	212	382

## Step 2: Survey on the Status of Minerals from Conflict-affected and High-risk Areas within the Supply Chain

From January through March of 2019, using the Conflict Minerals Reporting Template (CMRT) and the Cobalt Reporting Template (CRT), Samsung Electronics collected data on conflict minerals, cobalt, and information on smelters within the supply chain from the worksites of all suppliers with which it was currently in business as of end-2018.<sup>1</sup>

In addition, Samsung Electronics required suppliers to extend the ban on conflict minerals to their own suppliers, in accordance with the company's conflict minerals policy.

#### Smelters related to conflict minerals (2015–2019).

Year		2015	2016	2017	2018	2019
Total no. of smelters		113	254	255	258	261
	Tantalum	45	46	42	40	40
	Tin	74	75	71	73	76
	Tungsten	41	38	41	41	41
	Gold	113	95	101	104	104

#### Smelters related to cobalt

Year	2019		
No. of smelters	30		

#### Step 3: Reasonable Due Diligence and Verification of Survey Results

After an internal review of data submitted by all suppliers, in 2019, Samsung conducted on-site audits of 225 global suppliers that required additional checkups based on data submitted in order to verify both the reliability of their data and implementation of conflict-mineral-related policies.

X No. of suppliers subjected to on-site audits (2015–2019)

Year	2015	2016	2017	2018	2019
On-site audits	417	133	252	244	225

#### Step 4: Identifying and Evaluating Risks within the Supply Chain

Following an on-site audit, Samsung Electronics classifies suppliers into risk categories based on the reliability of the documents submitted, and their implementation of the conflict minerals program. The company then identifies and shares best-practice cases that suppliers can benchmark for their own operations.

The company also requires suppliers where audits have identified a need for improvement to reinforce supporting documents, providing these suppliers with on-site guidance when necessary.

Through such activities, Samsung Electronics assists suppliers with reviewing their conflict minerals policies, organization management, and conflict minerals information management systems. This helps suppliers improve on areas of vulnerability, which in turn enables them to boost their management capabilities, while reinforcing the due diligence system.

#### X Conversion of Non-Certified Smelters

- 1. The Partner Collaboration Center monitors the RMAP list of certified smelters on an ongoing basis and updates the G-SRM system accordingly.
- 2. The immediate blocking of access to the procurement system for materials sourced from non-certified smelters.
- 3. A request for improvement is emailed to related suppliers and to Samsung Electronics' procurement staff.
- \* Status alerts and follow-up reminders are generated by the G-SRM system twice a week, until the desired improvement is made.

## Step 5: Establishing Risk Management Plan and Reporting Relevant Information Improvement Efforts

Samsung Electronics requires all suppliers to pledge not to use conflict minerals, and encourages them to switch to RMAP-certified smelters. Through an integrated procurement system (the G-SRM), Samsung Electronics prevents materials containing minerals from non-RMAP-certified sources from entering the supply chain.

In 2019, the company found that three smelters in the supply chain had been delisted from the list of RMAP-certified smelters, and immediately severed relations with said smelters by immediately notifying the company's 195 suppliers.

#### \* Smelters removed from the conformant list in 2019

Minerals Reference No.		Smelter Name
Tantalum	CID001200	NPM Silmet AS
Tin	CID002858	Modeltech Sdn Bhd
Gold CID002560		Al Etihad Gold Refinery DMCC

Samsung Electronics has also established various channels and provided around-the-clock support to assist suppliers in resolving their feedback related to conflict minerals issues. In 2019, the company received and handled a total of 583 cases.

※ No. of cases in 2019

	Total	Survey	Operating system	Smelter	Data transmission	Letter of consent	Other
Total	583	402	93	30	16	7	35
Conflict minerals	501	348	73	29	16	7	28
Cobalt	82	54	20	1	-	1	7

Samsung Electronics verifies the presence of conflict minerals in its products and the origins of minerals, utilizing information on smelters submitted by suppliers. If the country of origin is uncertain, or if the smelters have not been certified by the RMAP, the company investigates whether conflict minerals have been used and recommends that such smelters obtain RMAP certification.

#### - Efforts to Encourage Suppliers to Utilize RMAP-Certified Smelters

As of the end of 2019, all Samsung Electronics suppliers are working with RMAP-certified smelters.

X Conflict Minerals related RMAP Certification of Smelters in the Supply Chain(As of 2019)

	Total No. of smelters	Tantalum	Tin	Tungsten	Gold
No. of smelter	261	40	76	41	104
Rate of RMAP certification	100%	100%	100%	100%	100%

#### - Public Disclosure on Conflict Minerals

Samsung Electronics discloses through its Sustainability Management Report, main website, and the Responsible Minerals Report the procedures and related results from its conflict minerals and responsible mineral sourcing each year. In addition, the company actively responds to requests from various global stakeholders for information on conflict minerals.

Through prior consultation with Samsung Electronics, suppliers have agreed to provide the company's stakeholders with information regarding their use of conflict minerals.

X Suppliers' consent to third-party disclosure of information (based on G-SRM)



#### □ Cooperation with External Parties

To effectively improve responsible minerals sourcing policies and address related issues, Samsung Electronics works with companies in the same industry, and actively gathers insights from relevant stakeholders. The company also engages in a variety of initiatives, including social contribution activities and private-public partnership programs, to tackle these challenges.

#### - Responsible Minerals Initiative (RMI)

The Responsible Minerals Initiative (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 a member of the RMI, Samsung Electronics strives to identify the origins of minerals that are circulated throughout the global supply chain. To this end, the company has developed the Conflict Minerals Reporting Template (CMRT) and the Cobalt Reporting Template (CRT) to survey its suppliers and enhance the collection and disclosure of information on smelters in the supply system. Through the Responsible Minerals Assurance Program (RMAP), a responsible-mineral-sourcing validation program, the company encourages smelters that have been validated as conflict-free to undergo independent third-party certification.



#### - European Partnership for Responsible Minerals (EPRM)

The European Partnership for Responsible Minerals (EPRM) is a multi-stakeholder partnership created in May of 2016 by the EU's private sector, civil society, and governments to enhance the transparency of supply chains dealing with conflict minerals and responsible minerals. Samsung Electronics joined the EPRM in December of 2018 as part of its commitment to complying with regulations regarding conflict minerals and responsible minerals sourcing, and to fulfill its corporate social responsibility as an industry partner. With the support of global governments and fellow companies, the company continues to advance a variety of research initiatives, which includes investigating and suggesting solutions to human rights issues in conflict-affected areas such as the Democratic Republic of the Congo.



#### - Industry Cooperation Project for Sustainable Cobalt Mining (Cobalt for Development)

For the contribution to sustainable development at cobalt mining in the Democratic Republic of the Congo, we joined hands with Deutsche Gesellschaft für Internationale Zusammenarbeit(GIZ), Samsung SDI, the BMW Group, and BASF to initiate a pilot project called 'Cobalt for Development' in 2019. The project aims to improve the labor conditions of small-scale cobalt mining sectors and the living conditions of surrounding communities. To this end, we are planning to conduct EHS risk assessments, provide trainings for employees, expand the provision of protective equipment for individuals, and offer trainings on financial. If the project is successful, its scope may be expanded to include additional small-scale artisanal mines in the short term, and improve structural problems in the long term.



\* Click on the link below for more information on the pilot program : https://news.samsung.com/global/samsung-electronics-and-partners-kick-off-cobalt-for-development-project-to-promote-responsible-artisanal-cobalt-mining-in-the-democratic-republic-of-congo

#### - Circular Mineral Recycling System

Samsung Electronics has strengthened its waste-management standards to ensure that waste generated at manufacturing sites in South Korea, as well as minerals containing waste generated through processing collected e-waste, are transferred only to RMAP-certified smelters. To achieve this goal, the company is cooperating with the Korea Urban Mining Association to urge smelters in Korea to seek RMAP certification.

#### ☐ Key achievements in 2019

		Year	No. of smelters	Remark
		Total No. of smelters	261	
	CMDT	Tantalum	40	*100% RMAP-certified
Conflict	CMRT survey	Tin	76	*100% RMAP-certified
minerals	Survey	Tungsten	41	*100% RMAP-certified
		Gold	104	*100% RMAP-certified
	On-the-ground assessments		225	
Coba	lt	No. of smelters	30	
		Participants	594	
Traini	ng	Samsung Electronics	212	
		Suppliers	382	
External	١	lo. of companies	129	
requests		No. of requests	190	
(customers)		No. of models	326	

#### X Conflict-mineral-sourcing countries (145 in total)

Argentina, Armenia, Australia, Australia, Azerbaijan, Bahamas, Barbados, Belarus, Belgium, Benin, Bolivia, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cayman Islands, Chile, China, Colombia, Croatia, Curacao (Dutch Antilles), Cyprus, Czech Republic, Democratic Republic of the Congo, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Ivory Coast, Japan, Jordan, Kazakhstan, Kenya, Kosovo, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macau, Madagascar, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Philippines, Poland, Portugal, Puerto Rico, Republic of Korea, Romania, Russian Federation, Rwanda, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, UAE, Uganda, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Uzbekistan, Vatican City, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe

#### Compliance rate by product category

	VD	Home Appliances	Medical Devices	Mobile	Network	Memory semiconductors	System LSI	Foundry	Display
Key product category	TVs, monitors	Refrigerators, laundry machines	Ultrasound system	Smartphone, Tablets	Repeaters, Modem chips	DRAM, SSDs	APs, CMOS	Mobile SoC	OLED
Rate of compliance	100%	100%	100%	100%	100%	100%	100%	100%	100%

1. On-site assessment letter to verify the use, source and origin of conflict minerals and cobalt:

#### < Conflict minerals >



#### < Cobalt >



2. On-site assessment letter to verify information provided by suppliers



#### **X Smelter and Refiner List in Samsung Electronics' supply chain(as of 2019)**

#### ☐ 3TG Smelter and Refiner List

No	Metal	ID	Smelter Name	Location	Direct Sourcing	Indirect SupplyingSmelter Sourcing
1	Gold	CID000015	Advanced Chemical Company	USA	LR, R/S	
2	Gold	CID000019	Aida Chemical Industries Co., Ltd.	Japan	R/S	
3	Gold	CID000035	Allgemeine Gold-und Silberscheideanstalt A.G.	Germany	See aggregated data below for LBMA Good Delivery Sourcing	
4	Gold	CID000041	Almalyk Mining and Metallurgical Complex (AMMC)	Uzbekistan	See aggregated data below for LBMA Good Delivery Sourcing	
5	Gold	CID000058	AngloGold Ashanti Corrego do Sitio Mineracao	Brazil	See aggregated data below for LBMA Good Delivery Sourcing	
6	Gold	CID000077	Argor-Heraeus S.A.	Switzerland	See aggregated data below for LBMA Good Delivery Sourcing	
7	Gold	CID000082	Asahi Pretec Corp.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
8	Gold	CID000090	Asaka Riken Co., Ltd.	Japan	R/S	L1, R/S
9	Gold	CID000113	Aurubis AG	Germany	See aggregated data below for LBMA Good Delivery Sourcing	
10	Gold	CID000128	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Philippines	See aggregated data below for LBMA Good Delivery Sourcing	
11	Gold	CID000157	Boliden AB	Sweden	See aggregated data below for LBMA Good Delivery Sourcing	
12	Gold	CID000176	C. Hafner GmbH + Co. KG	Germany	See aggregated data below for LBMA Good Delivery Sourcing	
13	Gold	CID000185	CCR Refinery - Glencore Canada Corporation	Canada	See aggregated data below for LBMA Good Delivery Sourcing	
14	Gold	CID000189	Cendres + Metaux S.A.	Switzerland	R/S (RIC RCOI data)	
15	Gold	CID000103	Chimet S.p.A.	Italy		
16			'	,	See aggregated data below for LBMA Good Delivery Sourcing	
17	Gold	CID000264	Chugai Mining	Japan	R/S, LR	
-	Gold	CID000328	Daejin Indus Co., Ltd.	Korea	R/S	
18	Gold	CID000359	DSC (Do Sung Corporation)	Korea	R/S	
19	Gold	CID000362	DODUCO Contacts and Refining GmbH	Germany	R/S	See aggregated data below for LBMA Good Delivery Sourcing
20	Gold	CID000401	Dowa	Japan	R/S	
21	Gold	CID000425	Eco-System Recycling Co., Ltd.	Japan	L1, R/S	See aggregated data below for LBMA Good Delivery Sourcing
22	Gold	CID000493	OJSC Novosibirsk Refinery	Russia	See aggregated data below for LBMA Good Delivery Sourcing	
23	Gold	CID000689	HeeSung Metal Ltd.	Korea	L1, R/S	
24	Gold	CID000694	Heimerle + Meule GmbH	Germany	See aggregated data below for LBMA Good Delivery Sourcing	
25	Gold	CID000707	Heraeus Metals Hong Kong Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
26	Gold	CID000711	Heraeus Precious Metals GmbH & Co. KG	Germany	See aggregated data below for LBMA Good Delivery Sourcing	
27	Gold	CID000801	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
28	Gold	CID000807	Ishifuku Metal Industry Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
29	Gold	CID000814	Istanbul Gold Refinery	Turkey	See aggregated data below for LBMA Good Delivery Sourcing	
30	Gold	CID000823	Japan Mint	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
31	Gold	CID000855	Jiangxi Copper Co., Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
32	Gold	CID000920	Asahi Refining USA Inc.	USA	See aggregated data below for LBMA Good Delivery Sourcing	
33	Gold	CID000924	Asahi Refining Canada Ltd.	Canada	See aggregated data below for LBMA Good Delivery Sourcing	
34	Gold	CID000929	JSC Uralelectromed	Russia	See aggregated data below for LBMA Good Delivery Sourcing	
35	Gold	CID000937		Japan		
			JX Nippon Mining & Metals Co., Ltd.		See aggregated data below for LBMA Good Delivery Sourcing	
36	Gold	CID000957	Kazzinc	Kazakhstan	See aggregated data below for LBMA Good Delivery Sourcing	
37	Gold	CID000969	Kennecott Utah Copper LLC	USA	See aggregated data below for LBMA Good Delivery Sourcing	
38	Gold	CID000981	Kojima Chemicals Co., Ltd.	Japan	L1, R/S	L1, R/S
39	Gold	CID001029	Kyrgyzaltyn JSC	Kyrgyzstan	See aggregated data below for LBMA Good Delivery Sourcing	
40	Gold	CID001078	LS-NIKKO Copper Inc.	Korea	See aggregated data below for LBMA Good Delivery Sourcing	
41	Gold	CID001113	Materion	USA	L1, R/S	See aggregated data below for LBMA Good Delivery Sourcing
42	Gold	CID001119	Matsuda Sangyo Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
43	Gold	CID001147	Metalor Technologies (Suzhou) Ltd.	China	R/S (RJC RCOI data)	
44	Gold	CID001149	Metalor Technologies (Hong Kong) Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
45	Gold	CID001152	Metalor Technologies (Singapore) Pte., Ltd.	Singapore	See aggregated data below for LBMA Good Delivery Sourcing	
46	Gold	CID001153	Metalor Technologies S.A.	Switzerland	See aggregated data below for LBMA Good Delivery Sourcing	
47	Gold	CID001157	Metalor USA Refining Corporation	USA	See aggregated data below for LBMA Good Delivery Sourcing	
48	Gold	CID001161	Metalurgica Met-Mex Penoles S.A. De C.V.	Mexico	See aggregated data below for LBMA Good Delivery Sourcing	
49	Gold	CID001188	Mitsubishi Materials Corporation	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
50	Gold	CID001193	Mitsui Mining and Smelting Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
51	Gold		Moscow Special Alloys Processing Plant	Russia	See aggregated data below for LBMA Good Delivery Sourcing	
52	Gold		Nadir Metal Rafineri San. Ve Tic. A.S.	Turkey	See aggregated data below for LBMA Good Delivery Sourcing	
53	Gold		Nihon Material Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
54	Gold		Ohura Precious Metal Industry Co., Ltd.	Japan	R/S	See aggregated data below for LBMA Good Delivery Sourcing
55	Gold		OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	Russia	See aggregated data below for LBMA Good Delivery Sourcing	
56	Gold	CID001352		Switzerland	See aggregated data below for LBMA Good Delivery Sourcing	
57	Gold			Russia	See aggregated data below for LBMA Good Delivery Sourcing	
58	Gold		PT Aneka Tambang (Persero) Tbk	Indonesia	See aggregated data below for LBMA Good Delivery Sourcing	
58						
-	Gold		PX Precinox S.A.	Switzerland	See aggregated data below for LBMA Good Delivery Sourcing	
60	Gold			South Africa	See aggregated data below for LBMA Good Delivery Sourcing	
61	Gold	CID001534	Royal Canadian Mint	Canada	See aggregated data below for LBMA Good Delivery Sourcing	
62	Gold	CID001555		Korea	R/S	
63	Gold		· ·	Spain	See aggregated data below for LBMA Good Delivery Sourcing	
64	Gold	CID001622	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
65	Gold	CID001736	Sichuan Tianze Precious Metals Co., Ltd.	China	See aggregated data below for LBMA Good Delivery Sourcing	
66	Gold	CID001756	SOE Shyolkovsky Factory of Secondary Precious Metals	Russia	See aggregated data below for LBMA Good Delivery Sourcing	
67	Gold	CID001761	Solar Applied Materials Technology Corp.	Taiwan	See aggregated data below for LBMA Good Delivery Sourcing	
68	Gold	CID001798	Sumitomo Metal Mining Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
69	Gold		•	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
70	Gold			China	See aggregated data below for LBMA Good Delivery Sourcing	
71	Gold	CID001938	Tokuriki Honten Co., Ltd.	Japan	See aggregated data below for LBMA Good Delivery Sourcing	
72	Gold	CID001938	Torecom	Korea	R/S	
73	Gold	CID001955	Umicore Brasil Ltda.	Korea Brazil	,	
-					See aggregated data below for LBMA Good Delivery Sourcing	
74	Gold		Umicore S.A. Business Unit Precious Metals Refining	Belgium	See aggregated data below for LBMA Good Delivery Sourcing	
75	Gold	CID001993	United Precious Metal Refining, Inc.	USA	LR, R/S	See aggregated data below for LBMA Good Delivery Sourcing
76	Gold	CID002003	Valcambi S.A.	Switzerland	See aggregated data below for LBMA Good Delivery Sourcing	

77 C 78 C 79 C 80 C 81 C 82 C 83 C 84 C 85 C 86 C 87 C 87 C 88 C 87 C 88 C 87 C 88 C 8	Gold Gold Gold	ID CID002030 CID002100	Smelter Name Western Australian Mint (T/a The Perth Mint)	Location Australia	Direct Sourcing See aggregated data below for LBMA Good Delivery Sourcing	Indirect SupplyingSmelter Sourcing
78 C 79 C 80 C 81 C 82 C 83 C 84 C 85 C 86 C 87 C 87	Gold Gold			, washidild		
79 (0 80 (0 81 (0 82 (0 83 (0 84 (0 85 (0 86 (0 87 (0	Gold		Yamakin Co., Ltd.	Japan	L1, R/S	L1, R/S
80 (C 81 (C 82 (C 83 (C 84 (C 85 (C 86 (C 87 (C		CID002129	Yokohama Metal Co., Ltd.	Japan	R/S	LI, NO
81 (3 82 (4 83 (4 84 (4 85 (4 86 (4 87 (4)			Zhongyuan Gold Smelter of Zhongjin Gold Corporation	China	See aggregated data below for LBMA Good Delivery Sourcing	
82 (C 83 (C 84 (C 85 (C 86 (C 87 (C	Gold					
83 (0 84 (0 85 (0 86 (0 87 (0	Gold	CID002243	Gold Refinery of Zijin Mining Group Co., Ltd.  Umicore Precious Metals Thailand	China	See aggregated data below for LBMA Good Delivery Sourcing	
84 C 85 C 86 C 87 C	Gold			Thailand	R/S and Mined (material risk not disclosed by RJC)	
85 C 86 C 87 C	Gold	CID002459	Geib Refining Corporation	USA	R/S	
86 (	Gold	CID002509	MMTC-PAMP India Pvt, Ltd.	India	See aggregated data below for LBMA Good Delivery Sourcing	
87 (	Gold	CID002511	KGHM Polska Miedz Spolka Akcyjna	Poland	See aggregated data below for LBMA Good Delivery Sourcing	
_	Gold	CID002516	Singway Technology Co., Ltd.	Taiwan	L1, R/S	
88	Gold		Emirates Gold DMCC	UAE	LR, CC, R/S	
	Gold		T.C.A S.p.A	Italy	See aggregated data below for LBMA Good Delivery Sourcing	
_	Gold		REMONDIS PMR B.V.	Netherland	LR, R/S	LR, R/S
90 (	Gold	CID002605	Korea Zinc Co., Ltd.	Korea	U .	
91 (	Gold	CID002606	Marsam Metals	Brazil	LR, R/S	See aggregated data below for LBMA Good Delivery Sourcing
92 (	Gold	CID002761	SAAMP	France	R/S and Mined (material risk not disclosed by RJC)	
_	Gold	CID002762	L'Orfebre S.A.	Andorra	L1, CC, R/S	
94 (	Gold	CID002763	8853 S.p.A.	Italy	Not disclosed per RJC	
95 (	Gold	CID002765	Italpreziosi	Italy	R/S and Mined (material risk not disclosed by RJC)	
96 (	Gold	CID002777	SAXONIA Edelmetalle GmbH	Germany	L1, R/S	L1, R/S
97 (	Gold	CID002778	WIELAND Edelmetalle GmbH	Germany	L1, R/S	L1, R/S
98 (	Gold	CID002779	Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	Austria	R/S and Mined (material risk not disclosed by RJC	
	Gold		AU Traders and Refiners	South Africa	- source ASM from Fairmined and Fairtrade mines)  R/S and Mined (material risk not disclosed by RJC	
_	Gold		Bangalore Refinery	India	LR, R/S	
	Gold		SungEel HiMetal Co., Ltd.	Korea	R/S	
	Gold		Planta Recuperadora de Metales SpA	Chile	L1	
	Gold				R/S (R/C RCOI data)	
			Safimet S.p.A	Italy		
	Gold		DS PRETECH Co., Ltd.	Korea	R/S	
	intalum		Asaka Riken Co., Ltd.	Japan	R/S	14 12 CC P/C
	ntalum		Changsha South Tantalum Niobium Co., Ltd.	China	L1, R/S	L1, L2, CC, R/S
	intalum		Guangdong Rising Rare Metals-EO Materials Ltd.	China	LI	
	intalum		Exotech Inc.	USA	LR, R/S	LR, CC, DRC, R/S
	ntalum		F&X Electro-Materials Ltd.	China	LR, HR, DRC, CC	L1, CC, DRC, R/S
_	intalum		Guangdong Zhiyuan New Material Co., Ltd.	China	L1, DRC, R/S	L1, CC, DRC, R/S
_	intalum		JiuJiang JinXin Nonferrous Metals Co., Ltd.	China	L1, CC, DRC	
112 Tar	intalum		Jiujiang Tanbre Co., Ltd.	China	L1, L2, R/S	
113 Tar	ntalum	CID001076	LSM Brasil S.A.	Brazil	LR	
114 Tar	ntalum	CID001163	Metallurgical Products India Pvt., Ltd.	India	L1, L2, R/S	
115 Tar	ntalum	CID001175	Mineracao Taboca S.A.	Brazil	L1	
116 Tar	ntalum	CID001192	Mitsui Mining and Smelting Co., Ltd.	Japan	L1, R/S	L1
117 Tar	ntalum	CID001200	NPM Silmet AS	Estonia	L1, R/S	
118 Tar	intalum	CID001277	Ningxia Orient Tantalum Industry Co., Ltd.	China	L1, CC, R/S	L1, CC, DRC
119 Tar	ntalum	CID001508	QuantumClean	USA	R/S	
120 Tar	ntalum	CID001522	Yanling Jincheng Tantalum & Niobium Co., Ltd.	China	L1, R/S	L1, CC, DRC, R/S
121 Tar	ntalum	CID001769	Solikamsk Magnesium Works OAO	Russia	L1	
122 Tar	ntalum	CID001869	Taki Chemical Co., Ltd.	Japan	R/S, CC	
123 Tar	intalum	CID001891	Telex Metals	USA	LR, R/S	LR
124 Tar	ntalum	CID001969	Ulba Metallurgical Plant JSC	Kazakhstan	L1, CC, DRC, R/S	L1
125 Tar	ntalum	CID002492	Hengyang King Xing Lifeng New Materials Co., Ltd.	China	LR, HR, CC	
126 Tar	ntalum	CID002504	D Block Metals, LLC	USA	L1, R/S	L1, CC, DRC, R/S
127 Tar	ntalum	CID002505	FIR Metals & Resource Ltd.	China	L1, R/S	L1, L2, CC, DRC, R/S
128 Tar	intalum	CID002506	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	China	L1	
129 Tar	ntalum	CID002508	XinXing HaoRong Electronic Material Co., Ltd.	China	L1, R/S	L1, L2, DRC
130 Tar	ntalum	CID002512	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	China	L1	
131 Tar	ntalum	CID002539	KEMET Blue Metals	Mexico	LR, R/S	L1, CC, R/S
132 Tar	intalum	CID002544	H.C. Starck Co., Ltd.	Thailand	LR, CC, DRC, R/S	L1, CC, DRC, R/S
133 Tar	ntalum	CID002545	H.C. Starck Tantalum and Niobium GmbH	Germany	LR, CC, DRC, R/S	L1, CC, DRC, R/S
134 Tar	intalum	CID002547	H.C. Starck Hermsdorf GmbH	Germany	LR	L1, R/S
135 Tar	intalum	CID002548	H.C. Starck Inc.	USA	LR, R/S	L1, CC, DRC, R/S
136 Tar	intalum	CID002549	H.C. Starck Ltd.	Japan	LR, R/S	L1, CC, DRC, R/S
137 Tar	ntalum		H.C. Starck Smelting GmbH & Co. KG	Germany	LR, CC, DRC, R/S	L1, CC, DRC, R/S
	intalum		Global Advanced Metals Boyertown	USA	LR, CC, DRC, R/S	L1, CC, DRC, R/S
	ntalum		Global Advanced Metals Aizu	Japan	LR	L1, CC, DRC, R/S
_	ntalum		KEMET Blue Powder	USA	LR	L1, R/S
	ntalum		Resind Industria e Comercio Ltda.	Brazil	LR	LR
	intalum	CID002842	Jiangxi Tuohong New Raw Material	China	L1	L1, CC, DRC
	intalum		Power Resources Ltd.	Macedonia	cc	
	intalum		Jiujiang Janny New Material Co., Ltd.	China	L1	L1, CC, DRC
	Tin		Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	China	L1, R/S	L1
_	Tin		Alpha	USA	L1, R/S	L1, CC, DRC, R/S
	Tin		CV Gita Pesona	Indonesia	L1	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	Tin		PT Aries Kencana Sejahtera	Indonesia	L1	
	Tin		PT Aries Rencana sejantera PT Premium Tin Indonesia	Indonesia	L1	
_	Tin		CV United Smelting	Indonesia	L1	
_	Tin	CID000315 CID000402				
				Japan	R/S	
	Tin		EM Vinto	Bolivia	L1	
	Tin		Fenix Metals	Poland	L1	
	Tin		Gejiu Non-Ferrous Metal Processing Co., Ltd.	China	LI	
_	Tin		Gejiu Zili Mining And Metallurgy Co., Ltd.	China	L1	
156	Tin	CID000760	Huichang Jinshunda Tin Co., Ltd.	China	ប	

No	Metal	ID	Smelter Name	Location	Direct Coursing	Indicate Countries Develop Coursing
157	Tin		Gejiu Kai Meng Industry and Trade LLC	China	Direct Sourcing	Indirect Supplying@melter Sourcing
158	Tin		China Tin Group Co., Ltd.	China	L1	
159	Tin		Malaysia Smelting Corporation (MSC)	Malaysia	L1, CC, DRC, R/S	L1, R/S
160	Tin		Metallic Resources, Inc.	USA	L1, R/S	L1
161			Mineracao Taboca S.A.		L1	LI
-	Tin			Brazil	LI LI	
162	Tin		Minsur	Perú		
163	Tin		Mitsubishi Materials Corporation	Japan	R/S	
164	Tin		Jiangxi New Nanshan Technology Ltd.	China	L1, R/S	
165	Tin		O.M. Manufacturing (Thailand) Co., Ltd.	Thailand	R/S	
166	Tin		Operaciones Metalurgical S.A.	Bolivia	Li	
167	Tin		PT Artha Cipta Langgeng	Indonesia	L1	
168	Tin		PT Babel Inti Perkasa	Indonesia	L1	
169	Tin	CID001406	PT Babel Surya Alam Lestari	Indonesia	LI .	
170	Tin	CID001419	PT Bangka Tin Industry	Indonesia	L1	
171	Tin	CID001421	PT Belitung Industri Sejahtera	Indonesia	L1	
172	Tin	CID001428	PT Bukit Timah	Indonesia	L1	
173	Tin	CID001434	PT DS Jaya Abadi	Indonesia	L1	
174	Tin	CID001448	PT Karimun Mining	Indonesia	L1	
175	Tin	CID001453	PT Mitra Stania Prima	Indonesia	L1	
176	Tin	CID001457	PT Panca Mega Persada	Indonesia	и	
177	Tin	CID001458	PT Prima Timah Utama	Indonesia	u	
178	Tin	CID001460	PT Refined Bangka Tin	Indonesia	L1	L1
179	Tin	CID001463	PT Sariwiguna Binasentosa	Indonesia	LR	
180	Tin	CID001468	PT Stanindo Inti Perkasa	Indonesia	u	
181	Tin	CID001471	PT Sumber Jaya Indah	Indonesia	u	
182	Tin	CID001477	PT Timah Tbk Kundur	Indonesia	u	
183	Tin	CID001482	PT Timah Tbk Mentok	Indonesia	L1	
184	Tin	CID001490	PT Tinindo Inter Nusa	Indonesia	LI	
185	Tin	CID001493	PT Tommy Utama	Indonesia	Li	
186	Tin		Rui Da Hung	Taiwan	L1, R/S	L1
187	Tin	CID001758	Soft Metais Ltda.	Brazil	L1, R/S	L1
188	Tin		Thaisarco	Thailand	L1, CC, DRC, R/S	L1, CC, DRC, R/S
189	Tin		Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	China	L1, R/S	L1, R/S
190	Tin		White Solder Metalurgia e Mineracao Ltda.	Brazil	L1	L1
191	Tin		Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	China	L1	
192	Tin		Yunnan Tin Company Limited	China	L1, R/S	L1, CC, DRC, R/S
193	Tin		CV Venus Inti Perkasa	Indonesia	11	Et, ee, bite, iys
194	Tin			Brazil	L1, R/S	
$\vdash$			Magnu's Minerais Metais e Ligas Ltda.			
195	Tin		PT Tirus Putra Mandiri	Indonesia	L1	
196	Tin		Melt Metais e Ligas S.A.	Brazil	L1	
197	Tin		PT ATD Makmur Mandiri Jaya	Indonesia	L1	
198	Tin		O.M. Manufacturing Philippines, Inc.	Philippines	R/S	
199	Tin		PT Inti Stania Prima	Indonesia	L1	
200	Tin	CID002570		Indonesia	L1	
201	Tin		CV Dua Sekawan	Indonesia	L1	
202	Tin		PT Rajehan Ariq	Indonesia	И	
203	Tin		Resind Industria e Comercio Ltda.	Brazil	LR	LR
204	Tin	CID002773	Metallo Belgium N.V.	Belgium	L1, R/S	L1, CC, DRC, R/S
205	Tin	CID002774	Metallo Spain S.L.U.	Spain	L1, R/S	L1, CC, DRC, R/S
206	Tin	CID002776	PT Bangka Prima Tin	Indonesia	L1	
207	Tin	CID002816	PT Sukses Inti Makmur	Indonesia	и	
208	Tin	CID002829	PT Kijang Jaya Mandiri	Indonesia	L1	L1
209	Tin	CID002834	Thai Nguyen Mining and Metallurgy Co., Ltd.	Viet Nam	u	
210	Tin	CID002835	PT Menara Cipta Mulia	Indonesia	u	
211	Tin	CID002844	HuiChang Hill Tin Industry Co., Ltd.	China	u	
212	Tin	CID002848	Gejiu Fengming Metallurgy Chemical Plant	China	រេ	L1, R/S
213	Tin	CID002849	Guanyang Guida Nonferrous Metal Smelting Plant	China	u	L1, R/S
214	Tin	CID002870	PT Lautan Harmonis Sejahtera	Indonesia	u	
215	Tin	CID003116	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	China	L1, R/S	
216	Tin	CID003190	Chifeng Dajingzi Tin Industry Co., Ltd.	China	L1, R/S	
217	Tin		PT Bangka Serumpun	Indonesia	L1	
218	Tin		Tin Technology & Refining	USA	LR, R/S	LR, CC, DRC, R/S
219	Tin		PT Rajawali Rimba Perkasa	Indonesia	Li	
220	Tin		Yunnan Yunfan Non-ferrous Metals Co., Ltd.	China	L1, R/S	
221			A.L.M.T. Corp.	Japan	L1, R/S	L1, CC, R/S
222	Tungsten		Kennametal Huntsville	USA	L1, R/S	L1
223			Guangdong Xianglu Tungsten Co., Ltd.	China	Li	
224	Tungsten		Chongyi Zhangyuan Tungsten Co., Ltd.	China	L1	
225			Fujian Jinxin Tungsten Co., Ltd.	China	L1	L1, R/S
226	Tungsten		Global Tungsten & Powders Corp.	USA	L1, CC, R/S	L1, CC, R/S
<b>-</b>				China	L1	en, ee, nys
227	Tungsten		Hunan Chenzhou Mining Co., Ltd.			
228	Tungsten		Hunan Chunchang Nonferrous Metals Co., Ltd.	China	L1	IA CC DDC D/C
229	Tungsten		Japan New Metals Co., Ltd.	Japan	L1, R/S	L1, CC, DRC, R/S
230	Tungsten		Ganzhou Huaxing Tungsten Products Co., Ltd.	China	Li	
231	Tungsten		Kennametal Fallon	USA	L1, R/S	L1, CC, R/S
232	Tungsten		Tejing (Vietnam) Tungsten Co., Ltd.	Vietnam	L1, R/S	
233	Tungsten		Wolfram Bergbau und Hutten AG	Austria	LR, HR, CC, R/S	LR, CC, HR
234	Tungsten		Xiamen Tungsten Co., Ltd.	China	LR, R/S	LR
235	Tungsten	CID002095	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	China	и	
236	Tungsten	CID002315	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	China	L1, R/S	

No	Metal	ID	Smelter Name	Location	Direct Sourcing	Indirect Supplying@melter Sourcing
237	Tungsten	CID002316	Jiangxi Yaosheng Tungsten Co., Ltd.	China	ព	
238	Tungsten	CID002317	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	China	u	
239	Tungsten	CID002318	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	China	u	
240	Tungsten	CID002319	Malipo Haiyu Tungsten Co., Ltd.	China	u	
241	Tungsten	CID002320	Xiamen Tungsten (H.C.) Co., Ltd.	China	DRC, CC, HR, R/S, LR	LR, R/S
242	Tungsten	CID002321	Jiangxi Gan Bei Tungsten Co., Ltd.	China	u	
243	Tungsten	CID002494	Ganzhou Seadragon W & Mo Co., Ltd.	China	u	
244	Tungsten	CID002502	Asia Tungsten Products Vietnam Ltd.	Vietnam	L1, L3, DRC	
245	Tungsten	CID002513	Chenzhou Diamond Tungsten Products Co., Ltd.	China	L1, R/S	
246	Tungsten	CID002541	H.C. Starck Tungsten GmbH	Germany	L1, R/S	
247	Tungsten	CID002542	H.C. Starck Smelting GmbH & Co. KG	Germany	R/S	L1, CC, R/S
248	Tungsten	CID002543	Masan Tungsten Chemical LLC (MTC)	Vietnam	HR, CC, R/S	
249	Tungsten	CID002551	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	China	u	
250	Tungsten	CID002579	Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji	China	LR	
251	Tungsten	CID002589	Niagara Refining LLC	USA	L1, CC, R/S	
252	Tungsten	CID002645	Ganzhou Haichuang Tungsten Co., Ltd.	China	LI	
253	Tungsten	CID002649	Hydrometallurg, JSC	Russia	L1, R/S	L1
254	Tungsten	CID002724	Unecha Refractory metals plant	Russia	L1 , R/S	
255	Tungsten	CID002827	Philippine Chuangxin Industrial Co., Inc.	Philippines	R/S	
256	Tungsten	CID002830	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	China	u	
257	Tungsten	CID002833	ACL Metais Eireli	Brazil	u	
258	Tungsten	CID002843	Woltech Korea Co., Ltd.	Korea	u	
259	Tungsten	CID002845	Moliren Ltd.	Russia	LR	
260	Tungsten	CID003182	Hunan Litian Tungsten Industry Co., Ltd.	China	LR, R/S	
261	Tungsten	CID003388	KGETS CO., LTD.	Korea	R/S	

X 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.					
COverd 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.					
High Risk(HR)	Countries identified by smelters and refiners as Conflict-Affected and High-Risk (HR)					
Recycled Scrap(R/S)	Secondary sources of material (non-mined) *Note these countries are not listed below					

% Refiners Source							
	Known Countries from which Conformant Gold Refiners Source						
Ц	Benin, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Eritrea, Mali, Mauritania, Nicaragua, Niger, Peru, Swaziland, Togo						
L2	South Africa						
сс	Tanzania, Uganda, Rwanda						
DRC							
Low Risk(LR)	Ghana, Guinea, Guyana						
High Risk(HR)							
Recycled Scrap(R/S)							
	Known Countries from which LBMA Good Delivery List Refiners Source - Mined Material (Provided by LBMA)						
L1	Argentina, Armenia, Australia, Azerbaijan, Bolivia (Plurinational State of), Botswana, Brazil, Burkina Faso, Canada, Chile, China, Colombia, Cyprus, Dominican Republic, Ecuador, Egypt, Ethiopia, Finland, Georgia, Ghana, Guatemala, Guinea, Guyana, Hondu Indonesia, Iran, Ivory Coast, Kazakhstan , Kyrgyzstan, Laos, Lebanon, Malaysia, Mali, Mauritius, Mexico, Mongolia, Morocco, Namibia, Nicaragua, Niger, Papua New Guinea, Peru, Phillipines, Puerto Rico, Russian Federation, Saudi Arabia, Senegal, Slovakia Solomon Islands, Spain, Suriname, Sweden, Thailand, Turkey, Uruguay, USA, Uzbekistan, Zimbabwe						
L2	Kenya, South Africa						
сс	Tanzania, Zambia						
DRC	Congo, Democratic Republic of the						
Low Risk(LR)	Argentina,						
High Risk(HR)							
Recycled Scrap(R/S)							
	Known Countries from which LBMA Good Delivery List Refiners Source - Recycled Material (Provided by LBMA)						
	Argentina, Armenia, Australia, Australia, Bahamas, Barbados, Belarus, Belgium, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Burkina Faso, Cambodia, Cameroon, Canada, Caymen Islands, Chile, China, Colombia, Croatia, Curacao (Dutch Antilles), Cyprus, Czech						
L1	Argentina, Armenia, Australa, Australa, Australa, Australa, Subaria, Serbaia, Seedual, Seedual, Solaria, Solaria, Seedual, Seedua						
L2	South Africa						
сс	Tanzania						
DRC	Congo, Democratic Republic of the						
Low Risk(LR)	Argentina,						
High Risk(HR)							
Recycled Scrap(R/S)							
	Known Countries from which Conformant Tantalum Smelters Source						
L1	Australia, Austria, Bolivia (Plurinational State of), Brazil, China, Colombia, Ethiopia, Guinea, India, Madagascar, Malaysia, Nigeria, Russian Federation, Sierra Leone, Thailand						
L2	Mozambique						
сс	Burundi, Rwanda						
DRC	Congo, Democratic Republic of the						
Low Risk(LR)	Australia, Brazil, China, Ethiopia, India, Mozambique, Namibia, Nigeria, Zimbabwe						
High Risk(HR)							
Recycled Scrap(R/S)							
	Known Countries from which Conformant Tin Smelters Source						
L1	Australia, Bolivia (Plurinational State of), Brazil, China, Colombia, Guinea, Indonesia, Laos, Malaysia, Mongolia, Myanmar, Nigeria, Peru, Portugal, Russian Federation, Taiwan, Thailand, United Kingdom of Great Britain and Northern Ireland, Venezuela, Vietnam						
L2							
сс	Burundi, Rwanda, Uganda						
DRC	Congo, Democratic Republic of the						
Low Risk(LR)							
High Risk(HR)							
Recycled Scrap(R/S)							
	Known Countries from which Conformant Tungsten Smelters Source						
L1 L2	Australia, Bolivia, Brazil, China, Colombia, Guinea, Indonesia, Laos, Malaysia, Mongolia, Myanmar, Nigeria, Peru, United Kingdom of Great Britain and Northern Ireland, Russian Federation, Taiwan, Thailand, United States of America, Uzbekistan						
CC	Purposit Broads Heads						
DRC	Burundi, Rwanda, Uganda  Congo, Democratic Republic of the						
Low Risk(LR)	остру остоине перавле от те						
High Risk(HR)							
Recycled Scrap(R/S)							
Recycleu Scrap(R/S)							

#### ☐ Cobalt Smelter List

NI.	Market	ID.	Smelter Name	Landin
No	Metal	ID		Location
1	Cobalt		Gem (Jiangsu) Cobalt Industry Co, Ltd.	China
2	Cobalt	CID003210	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	China
3	Cobalt		Ganzhou Tengyuan Cobalt New Material Co., Ltd.	China
4	Cobalt		Zhejiang Huayou Cobalt Co.,Ltd.	China
5	Cobalt	CID003226	Freeport Cobalt Oy	Finland
6	Cobalt	CID003228	Umicore Olen	Belgium
7	Cobalt	CID003242	Sherritt	Canada
8	Cobalt	CID003255	Quzhou Huayou Cobalt New Material Co., Ltd.	China
9	Cobalt	CID003384	Ganzhou Highpower Technology Co., Ltd.	China
10	Cobalt	CID003403	Glencore Nikkelverk Refinery	Norway
11	Cobalt	CID003211	Zhuhai Kelixin Metal Materials Co., Ltd.	China
12	Cobalt	CID003213	Guangxi Yinyi Advanced Material Co., Ltd.	China
13	Cobalt	CID003219	Hunan Brunp Recycling Technology Co., Ltd.	China
14	Cobalt	CID003227	Gangzhou Yi Hao Umicore Industry Co.	China
15	Cobalt	CID003240	Sudbury Integrated Nickel Operation	Canada
16	Cobalt	CID003338	SungEel HiTech Co.,Ltd.	Korea
17	Cobalt	CID003278	Niihama Nickel and Cobalt Facility	Japan
18	Cobalt	CID003293	Jiangsu Xiongfeng Technology Co., Ltd.	China
19	Cobalt	CID003221	Nantong Xinwei Nickel Cobalt Technology Development Co., Ltd.	China
20	Cobalt	CID003291	Guangdong Jiana Energy Technology Co., Ltd.	China
21	Cobalt	CID003377	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	China
22	Cobalt	CID003378	Jingmen GEM Co., Ltd.	China
23	Cobalt	CID003215	Tianjin Maolian Science & Technology Co., Ltd.	China
24	Cobalt	CID003398	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	China
25	Cobalt	CID003415	Cosmo EcoChem Co, Ltd.	Korea
26	Cobalt	CID003411	Hunan Zoomwe New Energy Science & Technology Co., Ltd.	China
27	Cobalt	CID003390	NORILSK NICKEL HARJAVALTA OY	Finland
28	Cobalt	CID003239	Port Colborne Refinery	Canada
29	Cobalt	CID003234	Ravensthorpe Metallurgy	Australia
30	Cobalt	CID003406	Murrin Murrin Nickel Cobalt Plant	Australia