
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM SD

Specialized Disclosure Report

KVH Industries, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

0-28082

(Commission File Number)

05-0420589

(I.R.S. Employer
Identification No.)

50 Enterprise Center, Middletown, RI 02842

(Address of Principal Executive Offices) (Zip Code)

Felise Feingold (401) 847-3327

(Name and telephone number, including area code, of the person to contact in connection with this report.)

Check the appropriate box to indicate the rule pursuant to which this form is being submitted, and provide the period to which the information in this form applies:

- Rule 13p-1 under the Securities Exchange Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2021.
- Rule 13q-1 under the Securities Exchange Act (17 CFR 240.13q-1) for the fiscal year ended _____.
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Section 1. Conflict Minerals Disclosure

KVH Industries, Inc. (“KVH”, “we”, or “our”) is a leading manufacturer of solutions that provide global high-speed Internet, television, and voice services via satellite to mobile users at sea and on land as well as a leading provider of commercially licensed entertainment including news, sports, movies, and music to commercial and leisure customers in the maritime, hotel, and retail markets. We are also a premier manufacturer of high-performance navigational sensors and integrated inertial systems for defense and commercial inertial navigation applications.

Item 1.01 Conflict Minerals Disclosure and Report

This Form SD is filed pursuant to Rule 13p-1 promulgated under the Securities Exchange Act of 1934, as amended, for the reporting period January 1, 2021 to December 31, 2021.

Item 1.02 Exhibit

KVH’s Conflict Minerals Report is provided as Exhibit 1.01 to this Form SD. A copy of our Conflict Minerals Report may be found at <https://ir.kvh.com/financial-information/sec-filings>.

Section 2. Resource Extraction Issuer Disclosure

Item 2.01 Resource Extraction Issuer Disclosure and Report

Not applicable.

Section 3. Exhibits

Item 3.01 Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.01	Conflict Minerals Report of KVH Industries, Inc.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the duly authorized undersigned on May 26, 2022.

KVH Industries, Inc.
(Registrant)

By: /s/ Roger A. Kuebel

Roger A. Kuebel, Chief Financial Officer

KVH Industries, Inc.

CONFLICT MINERALS REPORT

This Conflict Minerals Report of KVH Industries, Inc. (“KVH”, “we”, or “our”) has been prepared pursuant to Rule 13p-1 promulgated under the Securities Exchange Act of 1934, as amended, for the reporting period January 1, 2021 to December 31, 2021.

Rule 13p-1 and Form SD require companies to disclose certain information regarding products that they manufacture, or contract to manufacture, when: (a) those products contain one or more of the minerals gold, columbite-tantalite (coltan), cassiterite, or wolframite, or their derivatives tantalum, tin, and tungsten (the “Conflict Minerals”); (b) those Conflict Minerals are necessary to the functionality or production of those products; and (c) those Conflict Minerals originated, or may have originated, in the Democratic Republic of the Congo or in a country that shares an internationally recognized border with the Democratic Republic of the Congo (the “Covered Countries”).

Section 1. Product Review and Reasonable Country of Origin Inquiry**Section 1.1 Product Review**

KVH conducted an analysis of its product lines and determined that Conflict Minerals are used in its system-level products and components.

Section 1.2 Reasonable Country of Origin Inquiry and Conclusion

KVH’s international supply chain is complex. KVH is several layers removed from the smelters in its supply chain, making it difficult to trace the origin of any Conflict Minerals necessary to the functionality or production of its products.

For our 2021 reasonable country of origin inquiry (“RCOI”), we reviewed our suppliers of direct materials, components and system-level products (collectively referred to as “Supplier Materials”). We generated internal reports analyzing all Supplier Material purchases for 2021 (“Total Supplier Spend”). We then ranked each supplier based on the aggregate Total Supplier Spend. We determined that suppliers with \$49,000 or more in Total Supplier Spend accounted for 95% of Total Supplier Spend made by KVH during 2021, and determined that it would be reasonable to concentrate our RCOI efforts on this group of 85 suppliers. We refer to this group of suppliers as our “Primary Suppliers.”

In our RCOI for 2021, we surveyed our Primary Suppliers using a template developed by the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI) (the “Conflict Minerals Reporting Template”). KVH sent the Conflict Minerals Reporting Template to all 85 Primary Suppliers and received 82 responses, which represented 96% of our targeted supplier group and approximately 95% of Total Supplier Spend. We made additional requests for responses from the three Primary Suppliers that did not respond initially, but our efforts were not successful. Of the 82 responses received by KVH, 28 indicated that the Conflict Minerals used in Supplier Materials supplied to KVH came from “conflict-free” sources and furnished a list of their verified smelters; 41 confirmed that no Conflict Minerals were used in the Supplier Materials supplied to KVH; and 13 indicated that they were unsure of the origin of the Conflict Minerals in the Supplier Materials that they supplied to us.

Although the response rate of our Primary Suppliers decreased from approximately 99% in 2020 to 96% in 2021, the percentage of respondents who reported themselves as DRC “conflict-free” increased from 32% in 2020 to 34% in 2021. Despite the slight increase in vendors who reported themselves to be “conflict-free,” the percentage of the responding Primary Suppliers who reported themselves as DRC “undeterminable” remained the same at 16% for 2020 and 2021. Thus, we concluded that, for 2021, as in prior reporting years, we do not have sufficient information from our suppliers or other sources to determine with specificity the countries of origin of the Conflict Minerals used in our products or whether they are from recycled or scrap sources. Therefore, we cannot exclude the possibility that some of these Conflict Minerals may have originated in the Covered Countries and/or are not from recycled or scrap sources.

Section 2. Due Diligence

KVH’s due diligence efforts related to products: (i) for which Conflict Minerals are necessary to the functionality or production of that product; (ii) that were manufactured, or contracted to be manufactured, by KVH; (iii) for which the manufacture was completed during 2021; and (iv) for which KVH was unable to form the basis for a reasonable belief that none of the Conflict Minerals necessary to the functionality or production of those products originated in a Covered Country. The products, which are hereinafter referred to collectively as the “Covered Products,” include KVH’s mobile satellite communications products and components, as well as inertial navigation products and components.

Section 2.1 Design of KVH’s Due Diligence Measures

KVH designed its due diligence measures to conform to the framework set forth in the Organisation for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition, including the related supplements on gold, tin, tantalum and tungsten (the “OECD Guidance”).

Section 2.2 Due Diligence Measures Performed by KVH

The due diligence processes followed by KVH are described below under sub-headings corresponding to the five-step framework of the OECD Guidance.

1. Management Systems

We previously established and have maintained throughout 2021 internal processes for Conflict Minerals supply chain due diligence and reporting. We have implemented a Conflict Minerals Policy Statement and related procedures to help support our supply chain due diligence efforts and communication processes designed to provide information, including our Conflict Minerals Policy Statement, to our suppliers and to the public. In this regard, our supplier purchase contracts include terms and conditions and other contractual flow-downs requiring supplier cooperation and compliance with KVH’s due diligence efforts. We also maintain a “Supplier Information” web page to facilitate supplier access to important documents, including but not limited to KVH’s Conflicts Minerals Policy Statement, General Terms and Conditions of Purchase and General Supplier Quality Clauses, each of which can be found at <http://www.kvh.com/suppliers>. Additionally, prior to any engagement with KVH, we generally require all prospective suppliers to (a) provide information about their due diligence program and the steps they have taken to determine whether there are any Conflict Minerals in their supply chain; and (b) submit a completed copy of their latest Conflict Minerals Reporting Template. This information gives our Global Supply Chain team early visibility into the compliance program maturity level and smelter base of prospective vendors before we start to do business with that company.

For 2021, our efforts to identify smelters/refiners in our supply chain was facilitated through the use of due diligence tools created by the Responsible Minerals Initiative (“RMI”) founded by the RBA and GeSI for independent third-party audit information, including the Conflict Minerals Reporting Template. The information furnished by our Primary Suppliers was reviewed and analyzed by our internal team led by KVH’s Director of Global Supply Chain and retained within the company’s document retention system. The data obtained from our Primary Suppliers was vetted by our Global Supply Chain team and then used to generate a comprehensive list of all smelters/refiners that had been identified by our Primary Suppliers, which list was then cross-referenced against information from RMI’s Responsible Minerals Assurance Process (“RMAP”) to help us identify the compliant smelters/refiners and origin of minerals processed.

2. Assessment of Risk in the Supply Chain

In order to determine the origin of Conflict Minerals in the Covered Products:

- An initial meeting of our Global Supply Chain team was held on February 14, 2022 to review our 2021 annual spending and to determine the parameters of our RCOI for 2021.
 - On or around February 25, 2022, we sent letters to our Primary Suppliers, explaining our conflict minerals disclosure obligations and referring the suppliers to online training materials and instructions, and solicited survey responses using the Conflict Minerals Reporting Template.
 - Having received responses from only 34 of the 85 Primary Suppliers by the end of March 2022, a second meeting of our Global Supply Chain team was held on April 4, 2022, during which team members were tasked with following-up with all non-responsive Primary Suppliers.
 - Over the next 3 weeks, members of KVH’s Global Supply Chain team continued its efforts to contact the remaining Primary Suppliers, and by April 25, 2022, KVH had received responses from 82 of the 85 Primary Suppliers. Of the 82 respondents, 72 returned the Conflict Minerals Reporting Template and 10 provided a separate company statement regarding conflict minerals.
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- Having received responses from 96% of our Primary Suppliers, which represented approximately 95% of Total Supplier Spend for 2021, KVH then reviewed the responses and followed up on any incomplete or ambiguous responses.
- Our Global Supply Chain team then compared the smelters/refiners identified by its Primary Suppliers against the list of facilities that have received a “conformant” designation from the RMI’s RMAP, which designations provide country of origin and due diligence information on the Conflict Minerals sourced by such facilities.

3. Strategies to Respond to Identified Risks

KVH’s due diligence efforts are an evolving process that we strive to improve by: (i) maintaining a supplier onboarding process that solicits information about sourcing of conflict minerals, (ii) focusing on the reliability and quality of the information received from our Primary Suppliers; (iii) reviewing responses and following up on incomplete, inaccurate or ambiguous data; (iv) contacting Primary Suppliers who have consistently reported products to be “DRC conflict undeterminable” or the equivalent to determine what steps they have taken to improve their due diligence processes; and (v) maintaining internal processes designed to emphasize the importance of supplier cooperation and compliance with our Conflict Minerals Policy Statement through readily accessible policies and contractual flow-down clauses governing the business relationship, which not only provide us with leverage to promote compliance but also the flexibility needed to reassess and/or terminate certain relationships, as appropriate.

4. Independent Third-Party Audits

As a result of KVH’s position in the supply chain, there are generally several tiers of suppliers between KVH and the smelters/refiners in our supply chain, and therefore we do not conduct or commission independent third-party audits of the smelters and refiners from which our Primary Suppliers source Conflict Minerals. KVH has relied upon industry initiatives, including the RMI’s RMAP, for independent third-party audit information.

5. Reporting

With the preparation and submission of this Conflict Minerals Report, KVH has provided a public report of its due diligence measures with regard to the sourcing of Conflict Minerals. A copy of this report is available at <https://ir.kvh.com/financial-information/sec-filings>.

Section 3. Results of Due Diligence

The response rate among our Primary Suppliers in 2021 was 96%. Among the responses, some of our Primary Suppliers were unable to identify any of the smelters or refiners used in the Supplier Materials supplied to us and certain responses also included names of smelters or refiners that we believe may have been incomplete or misidentified. Such names have not been included among the list of smelters and refiners identified by our Primary Suppliers in Annex 1 below.

In total, we identified approximately 396 smelters as potential sources of Conflict Minerals that were reported to be in the supply chain at some point during the 2021 calendar year, a significant decrease from the prior year. The table below presents the total number of identified smelters or refiners for each mineral and the corresponding percentage of each group that we have been able to verify as conflict-free according to information provided on the RMI website.

Metal	Total Number of Identified Smelters for Each Metal	Identified Smelters or Refiners Verified as RMAP Conformant
Gold	185	53%
Tantalum	45	73%
Tin	109	51%
Tungsten	57	70%

For the Conflict Minerals contained in the Covered Products, KVH's due diligence efforts failed to clarify whether the Conflict Minerals contained in those products may have originated in a Covered Country or came from recycled or scrap sources. Twelve Primary Suppliers identified four smelters in their supply chains that KVH believes to be higher-risk based on publicly available information regarding their location, namely:

Mineral	Smelter	Location
Gold	African Gold Refinery	Uganda
Gold	Fidelity Printers and Refiners Ltd.	Zimbabwe
Gold	Universal Precious Metals Refining Zambia	Zambia
Tin	Luna Smelter, Ltd.	Rwanda

RMI identified Luna Smelter, Ltd. of Rwanda as a "conformant" smelter.

Our Global Supply Chain team previously contacted the Primary Suppliers who identified the smelters listed above to confirm what efforts each has taken either to certify its smelters or to identify alternate sources. Each of the Primary Suppliers informed KVH that they do not directly purchase materials from any of the smelters listed above and that they were either (i) downstream distributors of components and/or (ii) engaged as build-to-print contract manufacturers who do not choose the components. Consequently, as in prior reporting years, we were unable to validate that any of the smelters or refiners identified by our Primary Suppliers, including the smelters identified above, are actually in our supply chain. We will continue to follow our risk-mitigation processes implemented in 2019 to help identify possible higher-risk suppliers prior to engagement, and we intend to contact any new suppliers who identify higher-risk smelters such as these to confirm what efforts they have taken either to certify their smelters or to identify alternate sources, if necessary.

Based on our due diligence efforts, KVH has concluded that we do not have sufficient information to determine with specificity the country of origin of all of the Conflict Minerals in our Covered Products or to determine whether the Conflict Minerals were from recycled or scrap sources. Based on the information received from our Primary Suppliers, KVH believes that the facilities that may have been used to process Conflict Minerals in our Covered Products include the smelters and refiners listed in Annex 1 below.

Section 4. Future Steps to Improve Due Diligence

In order to improve our due diligence process and compliance efforts for 2022, KVH intends to:

- Continue to gather additional information which will assist us in determining whether the Conflict Minerals we utilize benefit armed groups contributing to human rights violations;
- Continue to collect and evaluate supplier responses and follow-up with those suppliers that we have deemed to be a higher risk due to incomplete or ambiguous responses; and
- Continue to review, and, if necessary, reassess supplier relationships based on information and resources provided by third-party conflict minerals audit programs such as the RMI's RMAP and other industry initiatives promoting responsible mineral sourcing practices.

KVH will continue to expect our suppliers to reasonably assure us that the minerals in the products they supply are conflict-free.

Section 5. Forward Looking Statements

This report includes forward-looking statements that involve risks and uncertainties, including for example statements regarding our due diligence processes with respect to Conflict Minerals. Forward-looking statements are not guarantees of future performance. KVH assumes no obligation to revise or update any forward-looking statements for any reason, except as required by law.

* Denotes smelters/ refiners that received a “conflict-free” designation from an independent third-party audit program, as of May 19, 2022.

Metal	Smelter or Refiner Name	Country
Gold	8853 S.p.A.*	Italy
Gold	Abington Reldan Metals, LLC	Australia
Gold	Abington Reldan Metals, LLC	United States
Gold	Advanced Chemical Company*	United States
Gold	African Gold Refinery	Uganda
Gold	Aida Chemical Industries Co., Ltd.*	Japan
Gold	Al Etihad Gold Refinery DMCC*	United Arab Emirates
Gold	Alexy Metals	United States
Gold	Allgemeine Gold-und Silberscheideanstalt A.G.	Germany
Gold	Almalyk Mining and Metallurgical Complex (AMMC)*	Uzbekistan
Gold	AngloGold Ashanti Corrego do Sitio Mineracao*	Brazil
Gold	Argor-Heraeus S.A.*	Switzerland
Gold	Asahi Pretec Corp.*	Japan
Gold	Asahi Refining Canada Ltd.*	Canada
Gold	Asahi Refining USA Inc.*	United States
Gold	Asaka Riken Co., Ltd.*	Japan
Gold	Atasay Kuyumculuk Sanayi Ve Ticaret A.S.	Turkey
Gold	AU Traders and Refiners	South Africa
Gold	Augmont Enterprises Private Limited	India
Gold	Aurubis AG*	Germany
Gold	Bangalore Refinery*	India
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)*	Philippines
Gold	Boliden AB*	Sweden
Gold	C. Hafner GmbH + Co. KG*	Germany
Gold	C.I Metales Procesados Industriales SAS	Colombia
Gold	Caridad	Mexico
Gold	CCR Refinery - Glencore Canada Corporation*	Canada
Gold	Cendres + Metaux S.A.*	Switzerland
Gold	CGR Metalloys Pvt Ltd.	India
Gold	Chimet S.p.A.*	Italy
Gold	China's Shandong Gold Mining Co., Ltd	China
Gold	Chugai Mining*	Japan
Gold	Daejin Indus Co., Ltd.	Korea, Republic Of
Gold	Daye Non-Ferrous Metals Mining Ltd.	China
Gold	Degussa Sonne / Mond Goldhandel GmbH	Germany
Gold	Dijllah Gold Refinery FZC	United Arab Emirates
Gold	DODUCO Contacts and Refining GmbH*	Germany
Gold	Dowa*	Japan
Gold	DS PRETECH Co., Ltd.	Korea, Republic Of
Gold	DSC (Do Sung Corporation)*	Korea, Republic Of
Gold	Eco-System Recycling Co., Ltd. East Plant*	Japan
Gold	Eco-System Recycling Co., Ltd. North Plant*	Japan
Gold	Eco-System Recycling Co., Ltd. West Plant*	Japan
Gold	Elemental Refining, LLC	United States
Gold	Emerald Jewel Industry India Limited (Unit 1)	India

Metal	Smelter or Refiner Name	Country
Gold	Emerald Jewel Industry India Limited (Unit 2)	India
Gold	Emerald Jewel Industry India Limited (Unit 3)	India
Gold	Emerald Jewel Industry India Limited (Unit 4)	India
Gold	Emirates Gold DMCC*	United Arab Emirates
Gold	Fidelity Printers and Refiners Ltd.	Zimbabwe
Gold	Fujairah Gold FZC	United Arab Emirates
Gold	GCC Gujrat Gold Centre Pvt. Ltd.	India
Gold	Geib Refining Corporation*	United States
Gold	Gold Coast Refinery	Ghana
Gold	Gold Refinery of Zijin Mining Group Co., Ltd.*	China
Gold	Great Wall Precious Metals Co., Ltd. of CBPM	China
Gold	Guangdong Jinding Gold Limited	China
Gold	Guoda Safina High-Tech Environmental Refinery Co., Ltd.	China
Gold	Hangzhou Fuchunjiang Smelting Co., Ltd.	China
Gold	Heimerle + Meule GmbH*	Germany
Gold	Heraeus Germany GmbH Co. KG*	Germany
Gold	Heraeus Metals Hong Kong Ltd.*	China
Gold	Hunan Chenzhou Mining Co., Ltd.	China
Gold	Hunan Guiyang yinxing Nonferrous Smelting Co., Ltd.	China
Gold	HwaSeong CJ CO., LTD.	Korea, Republic Of
Gold	Industrial Refining Company	Belgium
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.*	China
Gold	International Precious Metal Refiners	United Arab Emirates
Gold	Ishifuku Metal Industry Co., Ltd.*	Japan
Gold	Istanbul Gold Refinery*	Turkey
Gold	Italpreziosi*	Italy
Gold	JALAN & Company	India
Gold	Japan Mint*	Japan
Gold	Jiangxi Copper Co., Ltd.*	China
Gold	Johnson Matthey Limited	Canada
Gold	JSC Ekaterinburg Non-Ferrous Metal Processing Plant	Russian Federation
Gold	JSC Novosibirsk Refinery	Russian Federation
Gold	JSC Uralelectromed	Russian Federation
Gold	JX Nippon Mining & Metals Co., Ltd.*	Japan
Gold	K.A. Rasmussen	Norway
Gold	Kaloti Precious Metals	United Arab Emirates
Gold	Kazakhmys Smelting LLC	Kazakhstan
Gold	Kazzinc*	Kazakhstan
Gold	Kennecott Utah Copper LLC*	United States
Gold	KGHM Polska Miedz Spolka Akcyjna*	Poland
Gold	Kojima Chemicals Co., Ltd.*	Japan
Gold	Korea Zinc Co., Ltd.*	Korea, Republic Of
Gold	Kundan Care Products Ltd.	India
Gold	Kyrgyzaltyn JSC	Kyrgyzstan
Gold	Kyshtym Copper-Electrolytic Plant ZAO	Russian Federation
Gold	L'azurde Company for Jewelry	Saudi Arabia
Gold	Lingbao Gold Co., Ltd.	China

Metal	Smelter or Refiner Name	Country
Gold	Lingbao Jinyuan Tonghui Refinery Co., Ltd.	China
Gold	L'Orfebre S.A.*	Andorra
Gold	LS-NIKKO Copper Inc.*	Korea, Republic Of
Gold	LT Metal Ltd.*	Korea, Republic Of
Gold	Luoyang Zijin Yinhui Gold Refinery Co., Ltd.	China
Gold	Marsam Metals*	Brazil
Gold	Materion*	United States
Gold	Matsuda Sangyo Co., Ltd.*	Japan
Gold	MD Overseas	India
Gold	Metal Concentrators SA (Pty) Ltd.*	South Africa
Gold	Metallix Refining Inc.	United States
Gold	Metalor Switzerland	Switzerland
Gold	Metalor Technologies (Hong Kong) Ltd.*	China
Gold	Metalor Technologies (Singapore) Pte., Ltd.*	Singapore
Gold	Metalor Technologies (Suzhou) Ltd.*	China
Gold	Metalor Technologies S.A.*	Switzerland
Gold	Metalor USA Refining Corporation*	United States
Gold	Metallurgica Met-Mex Penoles S.A. De C.V.*	Mexico
Gold	Mitsubishi Materials Corporation*	Japan
Gold	Mitsui Mining and Smelting Co., Ltd.*	Japan
Gold	MMTC-PAMP India Pvt., Ltd.*	India
Gold	Modeltech Sdn Bhd	Malaysia
Gold	Morris and Watson	New Zealand
Gold	Morris and Watson Gold Coast	Australia
Gold	Moscow Special Alloys Processing Plant	Russian Federation
Gold	Nadir Metal Rafineri San. Ve Tic. A.S.*	Turkey
Gold	Navoi Mining and Metallurgical Combinat*	Uzbekistan
Gold	NH Recytech Company*	Korea, Republic Of
Gold	Nihon Material Co., Ltd.*	Japan
Gold	Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH*	Austria
Gold	Ohura Precious Metal Industry Co., Ltd.*	Japan
Gold	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	Russian Federation
Gold	PAMP S.A.*	Switzerland
Gold	Pease & Curren	United States
Gold	Penglai Penggang Gold Industry Co., Ltd.	China
Gold	Planta Recuperadora de Metales SpA*	Chile
Gold	Prioksky Plant of Non-Ferrous Metals	Russian Federation
Gold	PT Aneka Tambang (Persero) Tbk*	Indonesia
Gold	PX Precinox S.A.*	Switzerland
Gold	QG Refining, LLC	United States
Gold	Rand Refinery (Pty) Ltd.*	South Africa
Gold	Refinery of Seemine Gold Co., Ltd.	China
Gold	REMONDIS PMR B.V.*	Netherlands
Gold	Republic Metals Corporation	United States
Gold	Royal Canadian Mint*	Canada
Gold	SAAMP*	France

Metal	Smelter or Refiner Name	Country
Gold	Sabin Metal Corp.	United States
Gold	Safimet S.p.A*	Italy
Gold	SAFINA A.S.*	Czech Republic
Gold	Sai Refinery	India
Gold	Samduck Precious Metals*	Korea, Republic Of
Gold	Samwon Metals Corp.	Korea, Republic Of
Gold	Sancus ZFS (L'Orfebre, SA)	Colombia
Gold	SAXONIA Edelmetalle GmbH	Germany
Gold	Schone Edelmetaal B.V.	Netherlands
Gold	Sellem Industries Ltd.	Mauritania
Gold	SEMPSA Joyeria Plateria S.A.*	Spain
Gold	Shandong Humon Smelting Co., Ltd.	China
Gold	Shandong Tiancheng Biological Gold Industrial Co., Ltd.	China
Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.*	China
Gold	Shenzhen Zhonghenglong Real Industry Co., Ltd.	China
Gold	Shirpur Gold Refinery Ltd.	India
Gold	Sichuan Tianze Precious Metals Co., Ltd.*	China
Gold	Singway Technology Co., Ltd.*	Taiwan
Gold	So Accurate Group, Inc.	United States
Gold	SOE Shyolkovsky Factory of Secondary Precious Metals	Russian Federation
Gold	Solar Applied Materials Technology Corp.*	Taiwan
Gold	Sovereign Metals	India
Gold	State Research Institute Center for Physical Sciences and Technology	Lithuania
Gold	Sudan Gold Refinery	Sudan
Gold	Sumitomo Metal Mining Co., Ltd.*	Japan
Gold	SungEel HiMetal Co., Ltd.*	Korea, Republic Of
Gold	T.C.A S.p.A*	Italy
Gold	Tanaka Kikinzoku Kogyo K.K.*	Japan
Gold	Tokuriki Honten Co., Ltd.*	Japan
Gold	Tongling Nonferrous Metals Group Co., Ltd.	China
Gold	TOO Tau-Ken-Altyn*	Kazakhstan
Gold	Torecom*	Korea, Republic Of
Gold	Umicore Precious Metals Thailand*	Thailand
Gold	Umicore S.A. Business Unit Precious Metals Refining*	Belgium
Gold	United Precious Metal Refining, Inc.*	United States
Gold	Universal Precious Metals Refining Zambia	Zambia
Gold	Valcambi S.A.*	Switzerland
Gold	Value Trading	Belgium
Gold	WEEEREFINING	France
Gold	Western Australian Mint (T/a The Perth Mint)*	Australia
Gold	WIELAND Edelmetalle GmbH*	Germany
Gold	Xstrata	Canada
Gold	Yamakin Co., Ltd.*	Japan
Gold	Yokohama Metal Co., Ltd.*	Japan
Gold	Yunnan Copper Industry Co., Ltd.	China
Gold	Zhongjin Gold Corporation Limited	China

Metal	Smelter or Refiner Name	Country
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation*	China
Tantalum	Asaka Riken Co., Ltd.*	Japan
Tantalum	Changsha South Tantalum Niobium Co., Ltd.*	China
Tantalum	CP Metals Inc.	United States
Tantalum	D Block Metals, LLC*	United States
Tantalum	Duoluoshan	China
Tantalum	Exotech Inc.	United States
Tantalum	F&X Electro-Materials Ltd.*	China
Tantalum	FIR Metals & Resource Ltd.*	China
Tantalum	Global Advanced Metals Aizu*	Japan
Tantalum	Global Advanced Metals Boyertown*	United States
Tantalum	H.C. Starck Hermsdorf GmbH*	Germany
Tantalum	H.C. Starck Inc.	United States
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.*	China
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.*	China
Tantalum	Jiangxi Tuohong New Raw Material*	China
Tantalum	Jiujiang Janny New Material Co., Ltd.	China
Tantalum	JiuJiang JinXin Nonferrous Metals Co., Ltd.*	China
Tantalum	Jiujiang Tanbre Co., Ltd.*	China
Tantalum	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.*	China
Tantalum	KEMET Blue Powder	United States
Tantalum	KEMET de Mexico*	Mexico
Tantalum	King-Tan Tantalum Industry Ltd.	China
Tantalum	LSM Brasil S.A.	Brazil
Tantalum	Metallurgical Products India Pvt., Ltd.*	India
Tantalum	Mineracao Taboca S.A.*	Brazil
Tantalum	Mitsui Mining & Smelting*	Japan
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.*	China
Tantalum	NPM Silmet AS*	Estonia
Tantalum	PRG Doel	North Macedonia
Tantalum	QuantumClean*	United States
Tantalum	Resind Industria e Comercio Ltda.*	Brazil
Tantalum	Smelter not listed	China
Tantalum	Solikamsk Magnesium Works OAO*	Russian Federation
Tantalum	Taki Chemical Co., Ltd.*	Japan
Tantalum	TANIOBIS Co., Ltd.*	Thailand
Tantalum	TANIOBIS GmbH*	Germany
Tantalum	TANIOBIS Japan Co., Ltd.*	Japan
Tantalum	TANIOBIS Smelting GmbH & Co. KG*	Germany
Tantalum	Telex Metals*	United States
Tantalum	Ulba Metallurgical Plant JSC*	Kazakhstan
Tantalum	Ximei Resources (Guangdong), Ltd.*	China
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.*	China
Tantalum	Yancheng Jinye New Material Technology Co., Ltd.	China
Tantalum	Yanling Jincheng Tantalum & Niobium Co., Ltd.*	China
Tantalum	Yichun Jin Yang Rare Metal Co., Ltd.	China

Metal	Smelter or Refiner Name	Country
Tin	Alpha*	United States
Tin	An Vinh Joint Stock Mineral Processing Company	Vietnam
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.*	China
Tin	Chifeng Dajingzi Tin Industry Co., Ltd.*	China
Tin	China Tin Group Co., Ltd.*	China
Tin	CNMC (Guangxi) PGMA Co., Ltd.	China
Tin	Cookson	United States
Tin	Cooperativa Metalurgica de Rondonia Ltda.	Brazil
Tin	CRM Fundicao De Metais E Comercio De Equipamentos Eletronicos Do Brasil Ltda	Brazil
Tin	CRM Synergies*	Spain
Tin	CV Ayi Jaya	Indonesia
Tin	CV Dua Sekawan	Indonesia
Tin	CV Gita Pesona	Indonesia
Tin	CV Nurjanah	Indonesia
Tin	CV Serumpun Sebalai	Indonesia
Tin	CV United Smelting	Indonesia
Tin	CV Venus Inti Perkasa	Indonesia
Tin	Dongguan CiEXPO Environmental Engineering Co., Ltd.	China
Tin	Dowa*	Japan
Tin	Electro-Mechanical Facility of the Cao Bang Minerals & Metallurgy Joint Stock Company	Vietnam
Tin	EM Vinto*	Bolivia
Tin	Estanho de Rondonia S.A.*	Brazil
Tin	Fabrica Auricchio Industria e Comercio Ltda.*	Brazil
Tin	Fenix Metals*	Poland
Tin	Gejiu City Fuxiang Industry and Trade Co., Ltd.	China
Tin	Gejiu Fengming Metallurgy Chemical Plant	China
Tin	Gejiu Jinye Mineral Company	China
Tin	Gejiu Kai Meng Industry and Trade LLC	China
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.*	China
Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.*	China
Tin	Gejiu Zili Mining And Metallurgy Co., Ltd.*	China
Tin	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.*	China
Tin	Guanyang Guida Nonferrous Metal Smelting Plant	China
Tin	HuiChang Hill Tin Industry Co., Ltd.*	China
Tin	Jiangxi Ketai Advanced Material Co., Ltd.	China
Tin	Jiangxi Nanshan	China
Tin	Jiangxi New Nanshan Technology Ltd.*	China
Tin	Luna Smelter, Ltd.*	Rwanda
Tin	Ma'anshan Weitai Tin Co., Ltd.*	China
Tin	Magnu's Minerai's Metais e Ligas Ltda.*	Brazil
Tin	Malaysia Smelting Corporation (MSC)*	Malaysia
Tin	Melt Metais e Ligas S.A.	Brazil
Tin	Metallic Resources, Inc.*	United States
Tin	Metallo Belgium N.V.*	Belgium
Tin	Metallo Spain S.L.U.*	Spain
Tin	Mineraçao Taboca S.A.*	Brazil

Metal	Smelter or Refiner Name	Country
Tin	Minsur*	Peru
Tin	Mitsubishi Materials Corporation*	Japan
Tin	Modeltech Sdn Bhd	Malaysia
Tin	Nghe Tinh Non-Ferrous Metals Joint Stock Company	Vietnam
Tin	Novosibirsk Processing Plant Ltd.	Russian Federation
Tin	O.M. Manufacturing (Thailand) Co., Ltd.*	Thailand
Tin	O.M. Manufacturing Philippines, Inc.*	Philippines
Tin	OMSA ¹ *	Bolivia
Tin	Operaciones Metalurgicas S.A.*	Bolivia
Tin	Pongpipat Company Limited	Myanmar
Tin	Precious Minerals and Smelting Limited	India
Tin	PT Aries Kencana Sejahtera	Indonesia
Tin	PT Artha Cipta Langgeng*	Indonesia
Tin	PT ATD Makmur Mandiri Jaya*	Indonesia
Tin	PT Babel Inti Perkasa*	Indonesia
Tin	PT Babel Surya Alam Lestari*	Indonesia
Tin	PT Bangka Prima Tin	Indonesia
Tin	PT Bangka Serumpun*	Indonesia
Tin	PT Bangka Tin Industry	Indonesia
Tin	PT Belitung Industri Sejahtera	Indonesia
Tin	PT Bukit Timah*	Indonesia
Tin	PT Cipta Persada Mulia*	Indonesia
Tin	PT DS Jaya Abadi	Indonesia
Tin	PT Eunindo Usaha Mandiri	Indonesia
Tin	PT Inti Stania Prima	Indonesia
Tin	PT Karimun Mining	Indonesia
Tin	PT Kijang Jaya Mandiri	Indonesia
Tin	PT Lautan Harmonis Sejahtera	Indonesia
Tin	PT Masbro Alam Stania	Indonesia
Tin	PT Menara Cipta Mulia*	Indonesia
Tin	PT Mitra Stania Prima*	Indonesia
Tin	PT Mitra Sukses Globalindo	Indonesia
Tin	PT O.M. Indonesia	Indonesia
Tin	PT Panca Mega Persada	Indonesia
Tin	PT Premium Tin Indonesia	Indonesia
Tin	PT Prima Timah Utama*	Indonesia
Tin	PT Rajawali Rimba Perkasa*	Indonesia
Tin	PT Rajehan Ariq*	Indonesia
Tin	PT Refined Bangka Tin*	Indonesia
Tin	PT Sariwiguna Binasentosa*	Indonesia
Tin	PT Stanindo Inti Perkasa*	Indonesia
Tin	PT Sukses Inti Makmur	Indonesia
Tin	PT Sumber Jaya Indah	Indonesia
Tin	PT Tambang Timah	Indonesia
Tin	PT Timah Nusantara	Indonesia

¹ Presumed to be Operaciones Metalurgicas S.A.

Metal	Smelter or Refiner Name	Country
Tin	PT Timah Tbk Kundur*	Indonesia
Tin	PT Timah Tbk Mentok*	Indonesia
Tin	PT Tinindo Inter Nusa*	Indonesia
Tin	PT Tirus Putra Mandiri	Indonesia
Tin	PT Tommy Utama	Indonesia
Tin	Resind Industria e Comercio Ltda.*	Brazil
Tin	Rui Da Hung*	Taiwan
Tin	Soft Metais Ltda.*	Brazil
Tin	Super Ligas	Brazil
Tin	Thai Nguyen Mining and Metallurgy Co., Ltd.*	Vietnam
Tin	Thaisarco*	Thailand
Tin	Tin Technology & Refining*	United States
Tin	Tuyen Quang Non-Ferrous Metals Joint Stock Company	Vietnam
Tin	VQB Mineral and Trading Group JSC	Vietnam
Tin	White Solder Metalurgia e Mineracao Ltda.*	Brazil
Tin	Yunnan Chengfeng Non-Ferrous Metals Co., Ltd.*	China
Tin	Yunnan Tin Company Limited	China
Tin	Yunnan Yunfan Non-Ferrous Metals Co., Ltd.	China
Tungsten	A.L.M.T. Corp.*	Japan
Tungsten	ACL Metais Eireli*	Brazil
Tungsten	Albasteel Industria e Comercio de Ligas Para Fundicao Ltd.	Brazil
Tungsten	Asia Tungsten Products Vietnam Ltd.*	Vietnam
Tungsten	Chenzhou Diamond Tungsten Products Co., Ltd.	China
Tungsten	China Molybdenum Co., Ltd.*	China
Tungsten	Chongyi Zhangyuan Tungsten Co., Ltd.*	China
Tungsten	CNMC (Guangxi) PGMA Co., Ltd.	China
Tungsten	Cronimet Brasil Ltda*	Brazil
Tungsten	Fujian Ganmin RareMetal Co., Ltd.*	China
Tungsten	Fujian Jinxin Tungsten Co., Ltd.	China
Tungsten	Fujian Xinlu Tungsten*	China
Tungsten	Ganzhou Haichuang Tungsten Co., Ltd.*	China
Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.*	China
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.*	China
Tungsten	Ganzhou Yatai Tungsten Co., Ltd.	China
Tungsten	GEM Co., Ltd.	China
Tungsten	Global Tungsten & Powders Corp.*	United States
Tungsten	Guangdong Xianglu Tungsten Co., Ltd.*	China
Tungsten	H.C. Starck Tungsten GmbH*	Germany
Tungsten	Hunan Chenzhou Mining Co., Ltd.*	China
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.*	China
Tungsten	Hunan Litian Tungsten Industry Co., Ltd.	China
Tungsten	Hydrometallurg, JSC*	Russian Federation
Tungsten	Japan New Metals Co., Ltd.*	Japan
Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.*	China
Tungsten	Jiangxi Dayu Longxintai Tungsten Co., Ltd.	China
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.*	China
Tungsten	Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.	China

Metal	Smelter or Refiner Name	Country
Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.*	China
Tungsten	Jiangxi Tungsten Industry Group Co. Ltd.	China
Tungsten	Jiangxi Xinsheng Tungsten Industry Co., Ltd.*	China
Tungsten	Jiangxi Xiushui Xianggan Nonferrous Metals Co., Ltd.	China
Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.*	China
Tungsten	JSC "Kirovgrad Hard Alloys Plant"*	Russian Federation
Tungsten	Kennametal Fallon*	United States
Tungsten	Kennametal Huntsville*	United States
Tungsten	KGETS Co., Ltd.*	Korea, Republic Of
Tungsten	Lianyou Metals Co., Ltd.*	Taiwan
Tungsten	Malipo Haiyu Tungsten Co., Ltd.*	China
Tungsten	Masan High-Tech Materials*	Vietnam
Tungsten	Moliren Ltd.*	Russian Federation
Tungsten	Niagara Refining LLC*	United States
Tungsten	NPP Tyazhmetprom LLC	Russian Federation
Tungsten	OOO "Technolom" 1	Russian Federation
Tungsten	OOO "Technolom" 2	Russian Federation
Tungsten	Philippine Chuangxin Industrial Co., Inc.*	Philippines
Tungsten	South-East Nonferrous Metal Company Limited of Hengyang City	China
Tungsten	TANIOBIS Smelting GmbH & Co. KG*	Germany
Tungsten	Unecha Refractory metals plant*	Russian Federation
Tungsten	Vietnam Youngsun Tungsten Industry Co., Ltd.	Vietnam
Tungsten	Wolfram Bergbau und Hutten AG*	Austria
Tungsten	Woltech Korea Co., Ltd.*	Korea, Republic Of
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.*	China
Tungsten	Xiamen Tungsten Co., Ltd.*	China
Tungsten	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.*	China
Tungsten	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	China