

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM SD
Specialized Disclosure Report

KULICKE AND SOFFA INDUSTRIES, INC.
(Exact Name of Registrant as Specified in Charter)

Pennsylvania
(State or Other Jurisdiction
of Incorporation)

000-00121
(Commission File Number)

23-1498399
(I.R.S. Employer
Identification No.)

23A Serangoon North Avenue 5, #01-01 K&S Corporate Headquarters, Singapore
(Address of Principal Executive Offices)

554369
(Zip Code)

Registrant's telephone number, including area code: (215) 784-6000

N/A
(Former Name or Former Address, if Changed Since Last Report)

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

- Rule 13p-1 under the Securities Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2016
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Section 1 - Conflict Minerals Disclosure

Item 1.01 Conflict Minerals Disclosure and Report.

Conflict Minerals Disclosure

The products named in this report were either manufactured by Kulicke and Soffa Industries, Inc. ("K&S" or the "Company") or contracted by the Company to be manufactured. The listed products may contain conflict minerals necessary to their functionality or production.

With regard to the conflict minerals used in the products named in this report, pursuant to Rule 13p-1 under the Securities Exchange Act ("the Rule"), the Company has conducted in good faith a reasonable country of origin inquiry designed to determine whether any of the conflict minerals originated in the Democratic Republic of Congo (the "DRC") or an adjoining country or are from recycled or scrapped sources.

The Company also undertook due diligence on the source and chain of custody of necessary conflict minerals contained in its Covered Products. Its due diligence approach was designed to conform in all material respects with the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* and the related Supplements ("OECD Guidance"). The tantalum, tin, tungsten and gold ("3TG") analysis of the corresponding spares for the Equipment under study has also been completed.

On January 9, 2015, Kulicke & Soffa Holdings B.V. ("KSH"), the Company's wholly owned subsidiary, completed the acquisition of Assembléon Holding B.V. ("Assembléon"). The assessment of Assembléon's products are included from the beginning of the current reporting period.

There are certain legacy spare parts pertaining to discontinued Equipment products, that constitute an insignificant portion of the Company's total sales. These have been excluded in this report as these are discontinued products and the proportion of sale of such spares will further decline in the coming years.

The results of the Company's reasonable country of origin inquiry can be found in the Company's Conflict Minerals Report. A copy of Kulicke and Soffa Industries, Inc.'s Conflict Minerals Report is filed as Exhibit 1.01 hereto and is publicly available at www.kns.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this filing.

We operate two main business segments, Equipment and Expendable Tools.

Our list of Equipment segment products analyzed by the Company is shown in the table below:

Business Line	Product Name (1)	Typical Served Market
Ball bonders	IConn ^{PS} PLUS series (2) (3) (4)	Advanced and ultra fine pitch applications
	IConn ^{PS} ProCu PLUS series (2) (3)	High-end copper wire applications demanding advanced process capability and high productivity
	IConn ^{PS} MEM PLUS series	Memory applications
	ConnX ^{PS} PLUS series (2) (3) (4)	High productivity bonder for low-to-medium pin count applications
	ConnX ^{PS} LED	LED applications
	ConnX ^{PS} LED PLUS	LED applications
Wedge bonders	3600PLUS	Power hybrid and automotive modules using either heavy aluminum wire or PowerRibbon®
	3700PLUS	Hybrid and automotive modules using thin aluminum wire
	PowerFusion ^{PS} TL	Power semiconductors using either aluminum wire or PowerRibbon®
	PowerFusion ^{PS} HL	Smaller power packages using either aluminum wire or PowerRibbon®
	Asterion™	Power hybrid and automotive modules with extended area using heavy and thin aluminum
	Asterion™EV	Extended area for battery bonding and dual lane hybrid module bonding
Advanced Packaging	AT Premier PLUS	Advanced wafer level bonding application
	APAMA C2W	Thermo-compression for chip-to-wafer, HA FC and high density fan-out wafer level packaging ("HD FOWLP") bonding applications
	Hybrid Series	Advanced packages assembly applications requiring high throughput such as flip chip, WLP, FOWLP, embedded die, SiP, package-on-package ("POP"), and modules

(1) Power Series ("PS")

(2) Standard version

(3) Large area version

(4) Extended large area version

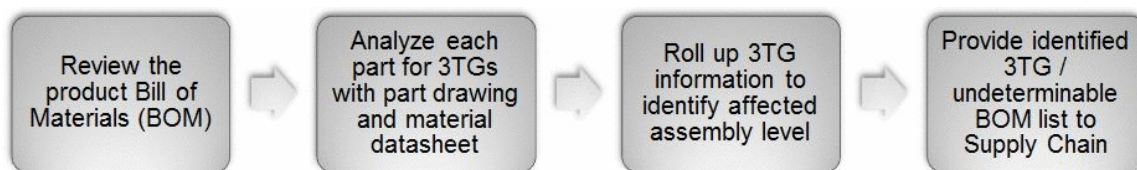
Business Line	Product Name (1)	Typical Served Market
Electronics Assembly	iX Series	Advanced Surface Mount Technology ("SMT") applications requiring extremely high output of passive and active components
	iFlex Series	Advanced SMT applications requiring multi-lane or line balancing solutions for standard or oddform passive and active components

We also sell manual wire bonders, and we offer spare parts, equipment repair, maintenance and servicing, training services, and upgrades for our equipment through our Support Services business unit.

We manufacture and sell a variety of Expendable Tools for a broad range of semiconductor packaging applications. Our principal Expendable Tools segment products include capillaries, bonding wedges and dicing blades.

Engineering team and efforts to analyze for presence of 3TG

Generally, our Engineering team analyzed each part in the Bill of Materials ("BOM") for presence of 3TG. If the part did not contain 3TG, there was no further action taken and the Company's database was updated. The drawing and data sheet and material composition were examined. The following is a flow chart illustrating the approach taken by the Engineering team:



Each part was listed in a file as per the below example:

BOM level	Item part number	Item Description	Material	Finishing	Sn	Ta	W	Au	Action
3	84625-6016-054	WIRE,PVC B 16AWG(26/30) GRN/YEL 600V 105	CONDUCTOR: STRANDED COPPER INSULATION: PVC	CONDUCTOR: TINNED COPPER	TIN	NIL	NIL	NIL	YES
3	16565-6033-004	TERMINAL RING 16-22 GAGE STUD NO 8	TERMINAL BODY AND SLEEVE: COPPER INSULATOR: NYLON	TERMINAL BODY AND SLEEVE: TIN PLATED	TIN	NIL	NIL	NIL	YES
3	19055-6088-000	LABEL,SELF-LAM 1/2" X 2" CMPTR-PRNTBLE	XB292 TRANSPARENT VINYL FILM	NA	NIL	NIL	NIL	NIL	NO
2	33850-0025-000	CAMERA,HEAD	UNKNOWN	UNKNOWN	UNKNOWN				YES

The file contains a listing of each item by part number, a description of the part, the material contained in the part, the finishing of the part, a column for each 3TG item, and a course of action. Under the "Action" column, it was noted "Yes" if the part contained 3TG or was undeterminable, and "No" if there was no presence of 3TG. If it was established that the item did contain 3TG or was undeterminable, the part was referred to the Supply Chain department for identification of the supplier of the part.

For Assembléon, we sent the Electronics Industry Citizenship Coalition/Global e-Sustainability Initiative ("EICC/GeSI") Conflict Minerals Reporting Template ("CMRT") to the top 80% of the suppliers in terms of total purchases.

Supply chain and efforts to determine country of origin

Generally, the Supply Chain team linked each part to the purchasing function to identify the supplier of the material, component or sub assembly. Requests for information were forwarded to our direct suppliers ("Tier-1 suppliers"). The Company based the survey on the Conflicts Minerals Reporting Template (the "CMRT") to establish the source of the 3TG for each of the items that were identified to contain 3TG. The CMRT included questions regarding the Company's conflict-free policy, engagement with its direct suppliers, and a listing of the smelters that the Company and its suppliers use. In addition, the template contained questions

about the origin of conflict minerals included in their products, as well as the suppliers' due diligence. The Company understands that the CMRT is being used by many companies in their due diligence processes related to conflict minerals.

The Conflict Minerals document package sent to the Company's Tier-1 suppliers contained the following:

- Supplier Letter - Notification to suppliers that K&S is subject to Section 1502 of the Dodd-Frank Act, that K&S needs to comply and that their cooperation is requested.
- K&S Conflict Minerals Policy
- Conflict Minerals K&S Training Presentation
- CMRT

Standard communication documents were intended to be communicated through the Supply Chain to sub-suppliers.

Suppliers were expected to respond as follows:

- Acknowledge the receipt of the request
- Understand the Conflict Minerals Policy and K&S requirements
- Perform due diligence on their supply chains to identify the smelter sources
- Consolidate the sub-suppliers responses and integrate them into their responses
- Submit the completed and signed CMRT to K&S within the requested time frame

A tracking system was implemented to monitor supplier response performance and due diligence progress. The responses received from suppliers were reviewed, and suppliers reporting 3TG items being purchased from the DRC or its adjoining countries were flagged and a risk mitigation strategy was developed for those suppliers.

The Company also holds a Supplier Day from time to time for most of its Tier-1 suppliers to, among other things, explain the requirements of the Conflict Minerals disclosure subsequent to the distribution of the standard communication documents. Presentations are made to the suppliers detailing the requirements of the Conflict Minerals rule and K&S's Conflict Minerals policy.

We rely on our Tier-1 suppliers to provide information on the origin of the 3TG contained in components and sub-assemblies supplied to us - including the sources of 3TG that are supplied to them by their sub-suppliers. However, contracts with our suppliers are usually in force for three to five years or more and typically, we cannot unilaterally impose new contract terms and flow-down requirements, such as those required by our Conflict Minerals Policy, midway through such contracts, although we attempt and encourage our suppliers to adhere to those terms, to the extent possible.

As we enter into new contracts, or when our existing contracts come up for renewal, we are adding clauses to require our suppliers to submit their declaration per the CMRT. Because of our size, the complexity of our products, and the depth, breadth, and constant evolution of our supply chain, it is difficult to identify sub-suppliers upstream from our direct suppliers.

Item 1.02 Exhibit.

The Conflict Minerals Report required by Item 1.01 is filed as an exhibit to this Form SD.

Section 2 - Exhibits

Item 2.01 Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.01	Conflict Minerals Report as required by Items 1.01 and 1.02 of this Form.

SIGNATURES

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 undersigned thereunto duly authorized.

KULICKE AND SOFFA INDUSTRIES, INC.

Date: May 17, 2017

By: /s/ JONATHAN CHOU

Jonathan Chou

Executive Vice President and Chief Financial Officer

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
1.01	Conflict Minerals Report as required by Items 1.01 and 1.02 of this Form.

Exhibit 1.01 Conflict Minerals Report

Introduction

This report has been prepared by the management of Kulicke and Soffa Industries, Inc. (the “Company,” “we,” “us” or “K&S”) for the calendar year ended December 31, 2016.

On January 9, 2015, Kulicke & Soffa Holdings B.V. (“KSH”), the Company’s wholly owned subsidiary, completed the acquisition of Assembléon Holding B.V. (“Assembléon”). The assessment of Assembléon’s products are included from the beginning of the current reporting period.

A. Company Overview

The Company designs, manufactures and sells capital equipment and expendable tools used to assemble semiconductor devices, including integrated circuits (“ICs”), high and low powered discrete devices, light-emitting diodes (“LEDs”), and power modules. We also service, maintain, repair and upgrade our equipment. Our customers primarily consist of semiconductor device manufacturers, integrated device manufacturers (“IDMs”), outsourced semiconductor assembly and test providers (“OSATs”), other electronics manufacturers and automotive electronics suppliers.

We operate two main business segments, Equipment and Expendable Tools.

Equipment Segment

We manufacture and sell a line of ball bonders, wafer level bonders, wedge bonders, advanced packaging and surface mount technology equipment that are sold to semiconductor device manufacturers, IDMs, OSATs, other electronics manufacturers and automotive electronics suppliers.

We also offer spare parts, equipment repair, maintenance and servicing, training services, and upgrades for our equipment through our Support Services business unit.

From our due diligence analysis described in Section D, we believe that our equipment contain electronic components and circuit parts, which may contain tin, tantalum, tungsten and gold (“3TG”).

Expendable Tools Segment

We manufacture and sell a variety of Expendable Tools for a broad range of semiconductor packaging applications. Our principal Expendable Tools segment products include capillaries, bonding wedges and dicing blades.

Suppliers

Substantially all of our manufacturing operations are located in countries other than the U.S. We manufacture our ball, wedge and APAMA(Advanced Packaging with Adaptive Machine Analytics) bonders in Singapore, our Hybrid and Electronics Assembly products in the Netherlands, our capillaries, bonding wedges and dicing blades in China and our capillary blanks in Israel.

We depend on our suppliers, including sole source suppliers, for critical raw materials, components and sub-assemblies. Our products are complex and require raw materials, components and sub-assemblies having a high degree of reliability, accuracy and performance. We rely on subcontractors to manufacture many of these components and sub-assemblies.

Some of our suppliers in turn rely on sub-suppliers for some of the raw materials, components and sub-assemblies that go into the modules that the suppliers supply us.

Many of our suppliers and sub-suppliers also supply to other manufacturers of electronic equipments.

B. Conflict Minerals Compliance Plan

Conflict Minerals Policy

As part of the Conflict Minerals Policy which the Company formulated in 2013 and continued to follow in 2016, the Company conducts the following:

- Exercising the Organization for Economic Co-operation and Development ("OECD") Due Diligence Guidance for conducting inquiries into our suppliers and encouraging our suppliers to do the same.
- Providing due diligence information to confirm the 3TG in our supply chain are DRC conflict-free and expecting our suppliers to do likewise.
- Providing transparency in the implementation of this policy by making available reports on our progress to relevant stakeholders and the public.

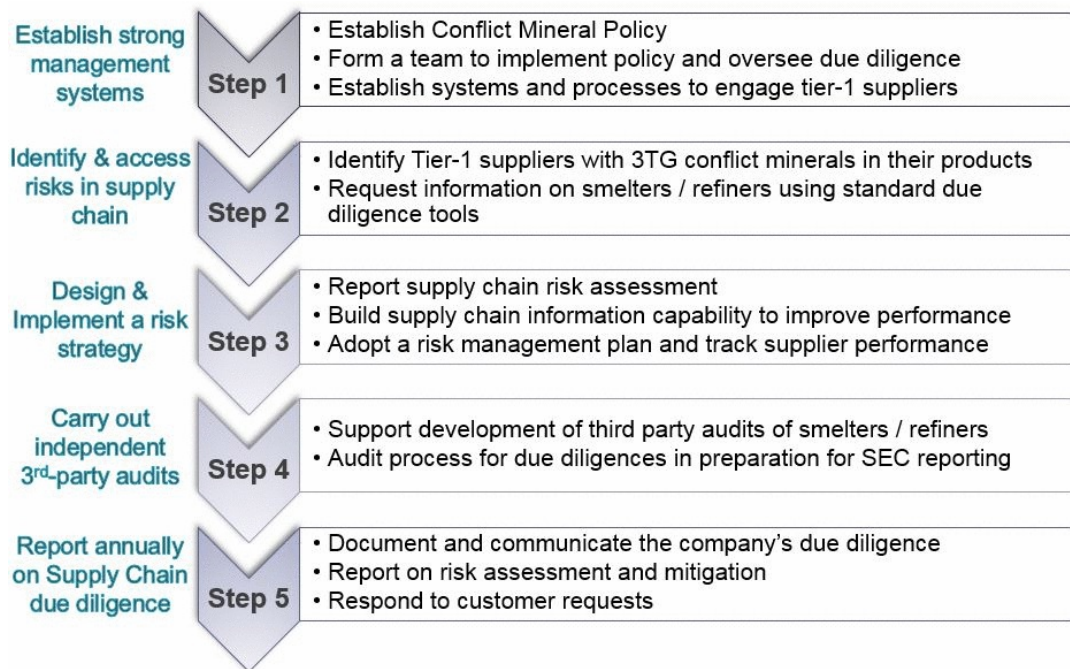
The Conflict Minerals Policy is publicly available on our website at <http://www.kns.com/en-us/Pages/CR.aspx>. We are not including the information contained on our website as a part of, or incorporating it by reference into, this filing.

For additional information about our commitment to responsible sourcing and other human rights, see our Code of Conduct. <http://www.kns.com/en-us/Pages/Corporate%20Governance.aspx>.

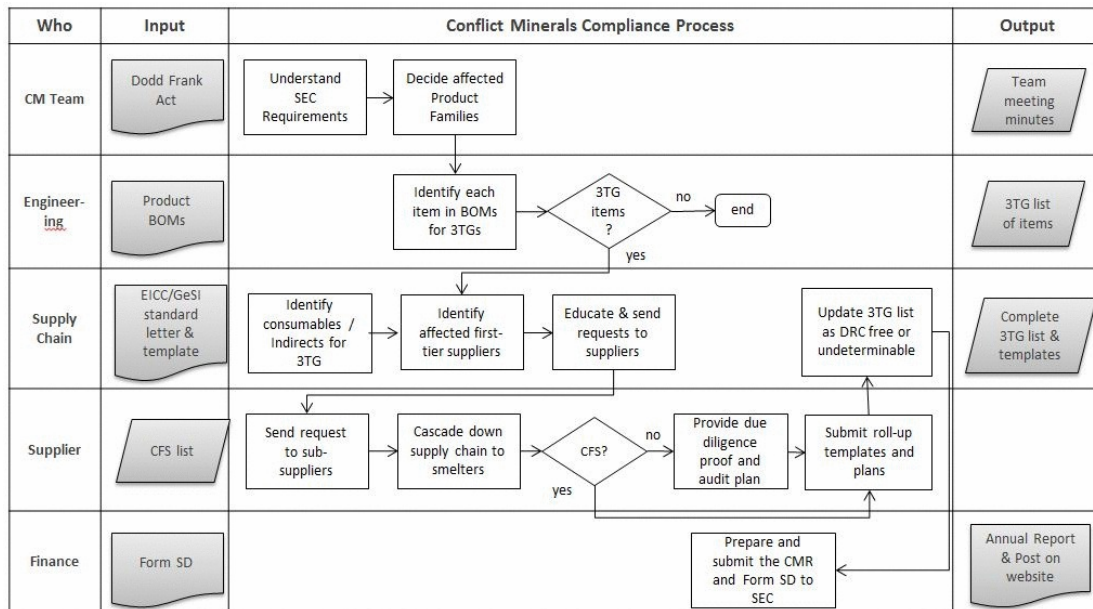
Conflict Minerals Framework and Action Plan

We have adopted the following framework in working towards our Conflict Minerals compliance as set forth in the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* and the related Supplements ("OECD Guidance")

We took the following approach in assessing our Conflicts Minerals compliance:



We formed a multi-disciplinary Conflict Minerals team to implement our Conflict Minerals compliance process, as below:



For Assembléon, we sent the Electronics Industry Citizenship Coalition/Global e-Sustainability Initiative ("EICC/GeSI") Conflict Minerals Reporting Template ("CMRT") to the top 80% of the suppliers in terms of total purchases.

C. Conflict Minerals Team

In early 2013, in pursuit of achieving Conflict Minerals compliance, we formed a Conflict Minerals Committee (the "Committee"). The Committee consists of employees from the Engineering, Supply Chain, Quality, IT, Legal and Finance departments of K&S. The purpose of the Committee was to oversee the work that was required to bring K&S in conformance with the Rule. Employees were assigned from different parts of the organization to support the due diligence process in identifying if 3TG were present in the Company's material purchases for the assembly of its products. The Committee regularly reviewed the due diligence progress to identify and provide resources to support the Conflict Minerals legislation requirements. The Committee appointed a multi-disciplinary due diligence team with the following responsibilities:

Engineering

- Analyze and identify the Bill of Materials ("BOM") of products that contain 3TG (except for Assembléon)
- Establish guidelines and controls to select Conflict Free Smelters ("CFS") sources for new and existing design and development of new and existing products

Supply Chain

- Identify Tier-1 suppliers
- Communicate with, educate and request information from affected Tier-1 suppliers and track information down the supply chain to smelter sources
- Review responses, report identified "red flags" and develop risk mitigation strategy for suppliers violating sourcing policy
- Track and report supplier performance or progress on 3TG due diligence

Quality

- Establish systems and processes to ensure due diligence compliance
- Support third-party due diligence audits in preparation of SEC reporting, if any
- Respond to customer requests
- Conduct internal audits and audits of suppliers in collaboration with Supply Chain

IT

- Provide system support for IT data collection tools to assist in the due diligence process
- Enhance IT requirements and automate for future years

Legal

- Interpret regulations, assist in development of policies and processes based on OECD Guidance and review of contract language
- Track evolving guidelines and developments on Conflict Minerals compliance
- Assist in the compilation of Form SD and the Conflict Minerals Report ("CMR")

Finance

- Document and communicate K&S Conflict Minerals due diligence on the K&S website
- Coordinate third-party due diligence audits on the CMR, if any
- Prepare Form SD and the CMR
- File Form SD and the CMR with SEC

D. Due Diligence Process**Design of Due Diligence**

Our due diligence measures have been designed to conform, in all material respects, to the framework in the OECD Guidance and related supplements for 3TG.

1. Establish company management systems

We have established a management system for Conflict Minerals. Our management system includes the Committee, sponsored by our President and Chief Executive Officer, as well as executive-level representatives and a multi-disciplinary team of subject matter experts from relevant functions such as:

- Engineering
- Supply Chain
- Quality
- IT
- Legal
- Finance

This team is responsible for implementing our Conflict Minerals compliance strategy and is led by our Senior VP, Global Operations and Chief Quality Officer, who acts as the executive Conflict Minerals program manager. Senior management is briefed about the results of our due diligence efforts on a regular basis. The Conflict Minerals team remains abreast of developments concerning Conflict Minerals by way of regular participation in industry events (such as roundtable discussions and webinars) and interaction with industrial peers.

Control systems

Control systems include, but are not limited to, our Code of Conduct which outlines expected behaviors for all K&S employees. As we enter into new contracts, or when our existing contracts come up for renewal, we are adding a clause to require our suppliers to submit their declaration per the CMRT.

Supplier Engagement

With respect to the OECD requirement to strengthen engagement with suppliers, as described above, we continue to strengthen our engagement with suppliers, encouraging them to further engage with their sub-suppliers with the intentions of ultimately identifying smelter sources. Necessary training was also made available to the Tier-1 suppliers.

Feedback from this engagement has allowed us to determine the quality of responses, understand the current stage of compliance or extent of undeterminability and lastly categorize suppliers for future actions.

K&S conducts Conflict Minerals program audits regularly at identified key or red flagged 3TG suppliers to access their process and confirm that a management system is in place to provide accurate CMRT information when requested.

Violation of CM Policy

Employees and suppliers can report any violations of K&S's policies through K&S's Whistleblower procedure. To date, we have not encountered any person that, to our knowledge, is in violation of our policy.

Maintain records

We have adopted a policy to retain relevant documentation in line with our quality management systems. K&S is ISO 9001:2008 Quality Management System certified. One of the requirements in the ISO 9001:2008 is Control of Records (clause 4.2.4) which defines the controls needed for the identification, storage, protection, retrieval, retention and disposition of records.

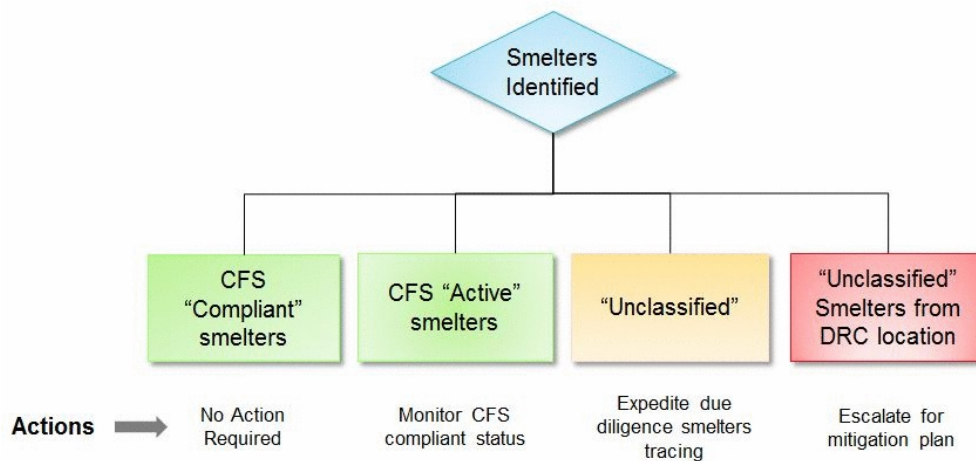
2. Identify and assess risk in the supply chain

Because of our size, the complexity of our products, and the depth, breadth, and constant evolution of our supply chain, it is difficult to identify the complete universe of sub-suppliers of our suppliers.

Our Supply Chain team identified 121 Tier-1 suppliers to which we sent the EICC/GeSI CMRT. We rely on these suppliers, whose components may contain 3TG, to provide us with information about the source of Conflict Minerals contained in the components supplied to us. Our Tier-1 suppliers are similarly reliant upon information provided by their suppliers.

The Conflict Minerals team reviewed and verified the completed templates, declarations and records from suppliers for completeness. The information received was updated in the K&S conflict minerals database. We also sought the services of a third-party vendor in engaging with our suppliers, follow-ups and consolidation of responses.

The following is the process that the Conflict Minerals team followed in the review and update of the information received:



The Conflict Minerals team assessed risks and made decisions for mitigation actions that needed to be taken for any non-compliance found in the reported information from suppliers for Conflict Minerals.

3. Design and implement a strategy to respond to identified risks

K&S has an approved risk management plan, through which the Conflict Minerals program is implemented, managed and monitored. Updates to this risk assessment are provided regularly to senior management.

As part of our risk management plan, and to ensure suppliers understand our expectations, we have a website (<http://www.kns.com/en-us/Pages/CSR.aspx>) with information, outreach events, and supplier's training. We are not including the information contained on our website as a part of, or incorporating it by reference into, this filing.

As described in our Conflict Minerals Policy, we will work with suppliers whom we have reason to believe are supplying us with 3TG from sources that may support conflict in the DRC or any adjoining country. We will attempt to establish an alternative source of 3TG in cases where the potential sources may be supporting such conflict, as provided in the OECD Guidance.

4. Carry out independent third-party audit of smelter/refiner due diligence practices

We do not typically have a direct relationship with smelters and refiners of 3TG and do not perform or direct audits of these entities within our supply chain. We rely on lists published by organizations (listed in the following page of this report) to evaluate the Conflict-Free Source of Origin ("CFS") status of the smelters identified by the Surveyed Suppliers.

5. Report annually on supply chain due diligence

In lieu of auditing and in our efforts to follow the OECD Guidance, we determined that requesting supplier information on smelters and refiners using the EICC/GeSI template, and reviewing the responses received, represents the most reasonable effort to determine the mine or country of origin. Our annual CMR will be posted as part of our SEC filings and on our website.

Determination

As of the cut-off date of April 3, 2017 for responses from our Tier-1 suppliers and follow-ups, we have received responses from 94% of the Surveyed Suppliers and reviewed the responses against criteria developed to determine which suppliers required further engagement. These criteria included untimely or incomplete responses as well as inconsistencies within the data reported in the template. We have worked directly with these suppliers to better understand their responses.

Responses included the names of about 691 entities listed by our suppliers as smelters or refiners. On average, our suppliers have completed about 75% of their 3TG smelter identification.

K&S checked the smelters identified by the Surveyed Suppliers against the lists published by the below organizations as CFS status:

Conflict Free Sourcing Initiative (CFSI)
Responsible Jewellery Council (RJC)
London Bullion Market Association (LBMA)
Dubai Multi Commodity Centre (DMCC)

As defined by the above organizations, "Compliant" smelters are those smelters that have undergone a third party audit, have systems in place to assure sourcing of only DRC conflict free materials, and are therefore identified as CFS status. "Active" smelters are those who are in the process of being audited, or have committed to begin the audit process.

The below table summarizes certain information pertaining to smelters identified by the Surveyed Suppliers as of April 3, 2017:

Total number of smelters identified by Surveyed Suppliers	691
Number of "Compliant" smelters	253
Number of "Active" smelters	14
Number for which further information is needed to determine status ("Unclassified" smelters)	424
Number of "Unclassified" smelters reported as located in the DRC	0

E. Future steps towards Conflict Minerals compliance

Moving forward, we intend to take the following steps with respect to our due diligence process to further mitigate any risk that any Conflict Minerals in our products could benefit armed groups in the DRC or adjoining countries:

- a. Complete the identification of suppliers whose supplies contain 3TG for Assembléon;
- b. Continue to identify suppliers whose supplies contain 3TG for all new product launches;
- c. Continue to include Conflict Minerals flow-down clauses in new or renewed supplier contracts;
- d. Continue to engage with suppliers frequently and direct them to training resources to increase response rate and improve compliance to the Rule;
- e. Encourage suppliers to move their sourcing of 3TG to smelters on the Conflict Free Smelter List;

- f. Continue to encourage our direct suppliers to purchase materials from smelters listed in the Conflict Free Smelter List; and
- g. After providing the opportunity to change, we will disengage from those of our suppliers found to be persisting in supplying us with 3TG from sources that support conflict in the DRC or any adjoining country, by establishing an alternative source of 3TG.

We work with OECD, Supply Chain Organizational Requirements ("SCOR"), industry peers and relevant trade associations to define and improve best practices and leverage over the supply chain.

Forward-Looking Statement Disclaimer

This report includes forward-looking statements, including but not limited to those regarding K&S expected future supplier diligence and engagement efforts and development of related processes. These statements and their underlying assumptions are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from current expectations, including but not limited to: regulatory changes and judicial developments relating to conflict minerals disclosure; changes in our supply chain, components and parts, or products; industry developments relating to supply chain diligence, disclosure and other practices; and other risks described in our most recent reports on Form 10-K, Form 10-Q and other SEC filings. Forward-looking statements are based on estimates, projections and assumptions as of May 17, 2017, and K&S undertakes no obligation to update any such statements.