



TKR Group

Green Procurement Standard



Green

TKR Corporation / TKR Group

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Related Documents: TWA-07 Booklet for TKR Group Green Procurement Standard

Related Documents: Forms for Disclosure of Information on Chemical Substances Contained in Products

Form 1: TWA-00-03 Agreement Regarding TKR Group Green Procurement Standard

Form-2: TWA-00-08 Certificate of Non-use

Form-3: TWA-00-07 Certificate of Ingredient and Guarantee

Form-4: TWA-00-09 TKR Group Surveys on Substances of High Concern under the REACH Regulations

※ Relevant Documents are available on our website. URL:<http://www.tkr.co.jp/>

Introduction

Since its inception, the TKR Group (hereinafter referred to as TKR) has been promoting global environmental conservation activities based on the principles of "Quality First," "Coexistence with Nature," "Harmony with the Surrounding Environment," and "Consideration of Environmental Technologies (Safety Design through Management of Source)." As part of its activities, TKR has been working on Green Procurement Standard to procure and purchase materials, parts, and products with less environmental impact for respect to necessary resources.

In recent years, in addition to the strengthening of Laws and Regulations particularly in Europe, the Social Responsibility for Environmental Issues in corporate activities has become increasingly strict.

TKR has recently revised its Green Procurement Standard, and will continue to promote Environmental Activities with the spirit of coexistence and co-prosperity with all suppliers.

To everyone at our suppliers are asked to understand TKR's philosophy on the environment, to take measures to reduce environmental impact, and to provide environmentally friendly materials and materials.

Your continued understanding and cooperation are highly appreciated.

TKR Group
Purchasing Department

1. Objective

The purpose of this Standard is to improve the Environmental Quality of products by submitting information on Chemical Substances Contained in all parts and materials delivered to TKR and by preferentially procuring parts and materials with lower Environmental impact and compliance with Laws and Regulations.

2. Scope

This Green Procurement Standard apply to parts, semi-finished products (assembly products, unit products), raw materials, packaging materials, and instruction manuals that make up products to be produced by TKR.

Substances that are in direct contact with the products during the manufacturing process or that are used for cleaning and may remain in the products shall be the same.

However, the following shall be exempted.

- ① Parts, semi-finished products and materials provided by TKR
- ② Certain components permitted by TKR to contain Prohibited Substances

※ Customer Requirements may be prioritized.

Table 1: TKR (application of green procurement standards) companies, business sites, and factories

| | |
|----------|--|
| Japan | TKR CORPORATION |
| | TKR MANUFACTURING JAPAN CORPORATION Tohoku |
| | TKR MANUFACTURING JAPAN CORPORATION Mizusawa |
| | TKR MANUFACTURING JAPAN CORPORATION Ibaraki |
| Malaysia | TKR MANUFACTURING (MALAYSIA) SDN.BHD |
| | TKR PRECISION (MALAYSIA) SDN.BHD |
| China | TKR HONG KONG LIMITED. |
| | TKR HUANAN ELECTRONICS (DONGGUAN) CO., LTD. |
| USA | TKR USA Inc. |
| Mexico | TKR DE MEXICO S.A de C.V. |
| Vietnam | TKR MANUFACTURING VIETNAM CO., LTD. |

Substances that are not explicitly stipulated in this Standard and whose use is prohibited by Laws and Regulations shall comply with those Laws and Regulations.

3. Criteria of Management

Chemical Substances subject to management based on Laws, Regulations, and Industry Standards are classified into the following categories and managed in consideration of the degree of impact on the environment.

① Banned Substances: Level 1(L1)

In development, design, production, and sales, Chemical Substances that are prohibited from intentional use and the inclusion of impurities exceeding the threshold.

② Content Reported Substances: Level 2 (L2)

Chemical Substances that need to be used, managed, and reported in Development, Design, Production, and Sales. Grasp the amount used and report it as necessary if the threshold value is exceeded.

※ For details, refer to the Booklet for TKR Group Green Procurement Standard.

4. Definition of Terms

(1) Chemical Substances Contained in Products (= Environmentally Controlled Substances)

Substances contained in products and its parts and materials (including packaging materials and wrapping materials) that are considered by TKR to have a significant impact on the Global Environment and Human Body.

(2) Chemical Substances

Elements and compounds thereof which are naturally occurring or are obtained in any manufacturing process. (JIS Z 7201:2012)

(3) Mixture

A mixture of two or more chemicals. (JIS Z 7201:2012)

(Note) Examples of mixtures include paints, inks, alloy ingots, solder, resin pellets, and the like.

(4) Chemicals

Chemicals and / or mixtures. (JIS Z 7201: 2012)

(5) Articles

The specific shape, appearance or design imparted during manufacture determines the function of the end use to a greater extent than the function of the chemical composition. (JIS Z7201:2012)

(Note) Examples of molded articles include paints, metal boards, gears, integrated circuits, appliances, transportation machinery, and the like.

※ Definitions of (2) to (5) are quoted from the " chemSHERPA: Rules for the Use of Information on Chemical Substances Contained in Products."

(6) ChemSHERPA

A scheme for communicating information on Chemical Substances Contained in Products in the Supply Chain operated by the Article Management Promotion Council (JAMP).

(7) ChemSHERPA-AI

A format for transmitting component information and compliance information on Chemical Substances Contained in articles.

(8) ChemSHERPA-CI

A format for transmitting component information on Chemical Substances Contained in Chemical Products.

(9) JAMA/JAPI Standard Datasheet

A form agreed by the Japan Automobile Manufacturers Association (JAMA) and the Japan Automobile Parts Industries Association (JAPIA) for use in surveys of Environmentally Hazardous Substances in the Automobile Industry and surveys of materials and compounds contained therein in order to ensure consistency.

(10) IMDS (Material Data System for the Automotive Industry)

IMDS (International Material Data System) is the database in which all materials used in automotive is managed as data and used by automotive-related companies around the world.

The use of this system by automotive manufacturers and their suppliers enables them to meet the obligations imposed by international standards, laws and regulations.

In addition, it operates on the Internet, and materials can be registered and confirmed from a personal computer.

(11) Exemptions

Items that are excluded by Laws and Regulations or have no alternative technology solution at present are permitted to be used as exceptional measures for substances, applications, parts, etc.

(12) Contains

Add, fill, mix or adhere to the parts, devices or materials used to make up the product, whether or not the substance is intentional. (Including cases in which unintentional mixed or adhered to products or materials occurs in the working process)

(13) Threshold (Regulated Value)

The maximum permissible value of the content or concentration of Chemical Substances Contained in parts and materials in accordance with Laws and Regulations.

(14) Homogeneous Materials (Part)

Indicates materials that cannot be mechanically separated into separate materials.

(15) Intentional Addition

Use it as intended when manufacturing parts, if continuous contain is desired to bring about a specific property, appearance, or quality.

(16) Impurities

A Substance which is contained in a natural material and which cannot be removed in the purification process or is produced in the course of a reaction and cannot be removed technically.

(17) Certificate of Non-Use

A document certifying by the supplier that a Chemical Substance (Prohibited Substance) whose inclusion in products is prohibited is not included in the parts to be delivered. Certification for each part is required.

(18) Detailed Analysis Data

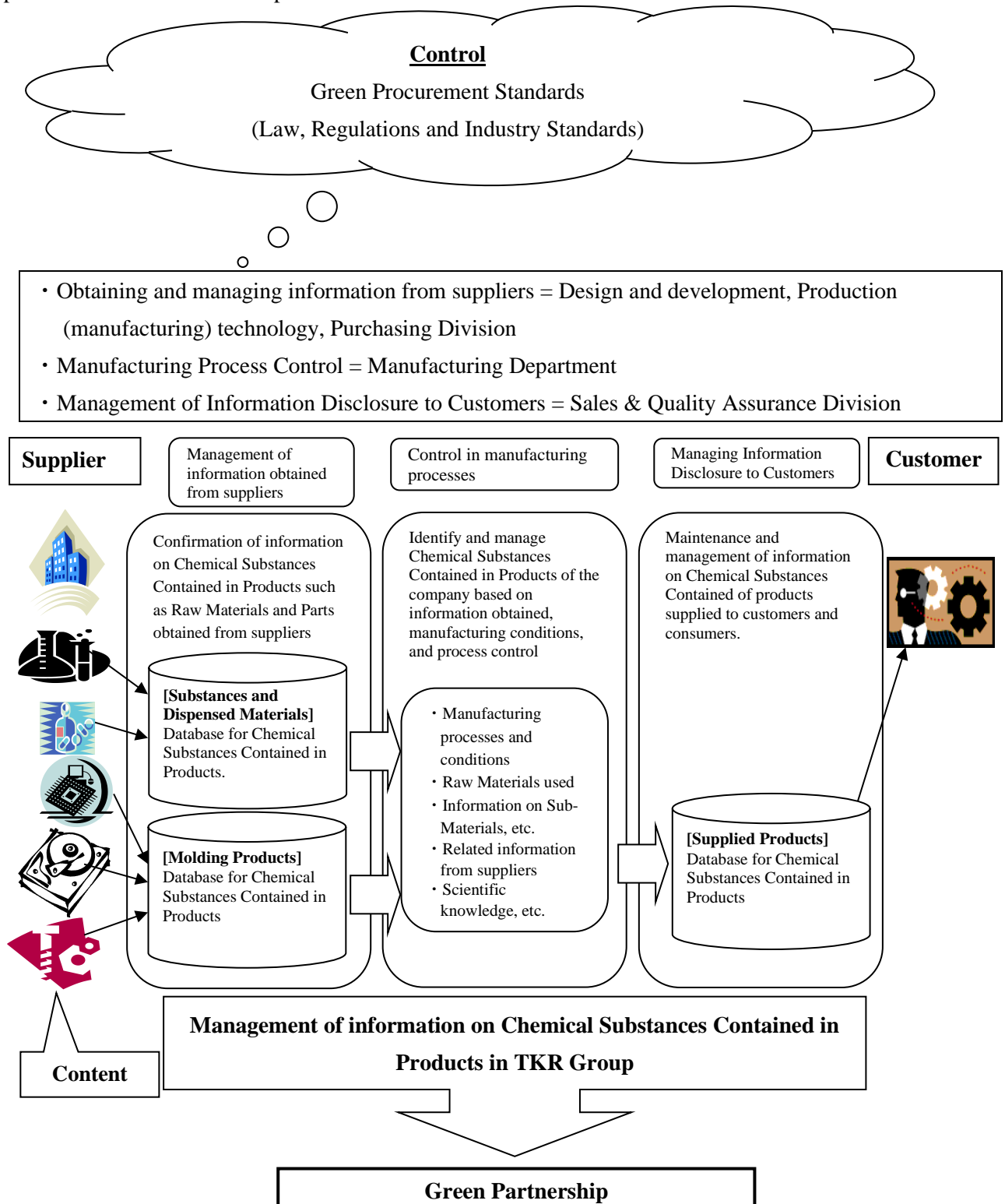
Results of elemental contents analysis of chemical substances by ICP (Inductively-Coupled Plasma) analysis or GC (Gas Chromatography) analysis.

5. Partnership on Green Procurement Standard

In order to effectively protect the environment, it is important to reduce the Environmental Impact of all business activities through not only TKR, but also through partnerships with suppliers and customers. For this purpose, it is necessary to establish, maintain, and improve partnerships that are beneficial to all parties.

Concept for the Management of Green Procurement

TKR has been established a management system for exchanging information on chemical substances in products at businesses from upstream to downstream.



6. Requests to Our Suppliers for the Cooperation in Investigations Regarding Green Procurement

TKR will strengthen its efforts to deliver environmentally friendly products to society with the support of suppliers. We would appreciate your cooperation in surveying the products procured from suppliers on the upstream side of the supply chain.

6.1 Documents that TKR would like our partner to submit

TKR recommends the establishment and operation of an ISO-based system for managing Chemical Substances in Products.

Suppliers who initiate new dealing with TKR are requesting to submit "Agreement to TKR Group Green Procurement Standard" to Purchasing Department of TKR Group as a proof of promise to actively disclose cooperation on disclosure of information regarding following items.

- 1) Establishment of Management System.
- 2) Compliance with this Standard.
- 3) Requests from TKR, etc.

Table 2: Documents for suppliers to Agreement on Green Procurement Standard

| Documents to be submitted | Time of submission | Forms / Documents to be filled in |
|--|-----------------------|--------------------------------------|
| Form-1: TWA-00-03 Agreement to TKR Group Green Procurement Standard | Time of a new dealing | TKR Group Green Procurement Standard |

6.2 Information that TKR would like our partner to disclose

The information for Chemical Substance Contained in the parts constituting the TKR products shall be described in TKR parts number units and submitted. TKRs shall be operated based on the chemSHERPA managed by the Articles Management Promotion Council (JAMP).

Please submit information on Chemical Substances in chemSHERPA-AI or chemSHERPA-CI.

If it is difficult to submit in chemSHERPA, please submit in the format specified by TKR (Form 3).

In addition, if the supplier is a trading company, TKR Green Procurement Standard is communicated to the manufacturer, and requested to submit information on Chemical Substances with understanding.

Documents to be submitted to TKR and supporting documents should be retained for 11 years after submission.

Please submit the report via electronic media to the person in charge of the Design and Development Department, Purchasing Department, Manufacturing department, and other Requesting Departments of TKR.

6.2.1 Applicable Materials, Parts and Products excluding Jig, Tool and Mechanical Equipment

<Time of submission>

- (1) Time of parts certification
- (2) When standards of control for Applicable Materials, Parts and Products are changed or added
- (3) When changing 4M (Man, Machinery, Methods, Materials), etc.

Table 3a: Materials to be Submitted to Suppliers

【Required documents】

| Documents to be submitted | | | Forms / Documents to be filled in |
|---------------------------|--------------------------|---|---|
| 1 | Table of ingredients | chemSHERPA chemSHERPA-AI (SHAI file) or chemSHERPA-CI (SHCI file) | Please download the latest version from the following website for the scheme of communicating information to Chemical Substances Contained in Product. https://chemsherpa.net/chemSHERPA/ |
| 2 | Analysis data | Detailed Analysis Data (ICP/GC etc.) | See section 6.4 below. |
| 3 | Certification of Non-use | Form-2: TWA-00-08 Certificate of Non-use | |

【If it is difficult to submit with chemSHERPA, submit documents instead】

| Documents to be submitted | | Forms / Documents to be filled in |
|---------------------------|---|-----------------------------------|
| Table of ingredients | Form-3: TWA-00-07 Certificate of Ingredient and Guarantee | |

6.2.2 Jig tool and mechanical equipment

If Substances contained in Jig, Tool and Mechanical Equipment, etc used in the manufacturing process may remain in materials, parts and products that come into direct contact with them, please submit the documents listed in Table-3b for the 10 substances subject to the RoHS Directive including 4 types of Phthalates.

Ex) Assembly Jigs, Tools, Metal masks, Board Dividers, Lead Cutters, Cables, Stamps, Inks, Marking Pens, Masking Tapes, Electrostatic Mats, Electrostatic Gloves, Returnable Boxes, etc.

<Time of submission>

(1) At the starting of Mass Production

However, if the schedules and priorities are set separately at each of our manufacturing sites, please follow their requests.

(2) When the standards of control for Jig, Tool and Mechanical Equipment are changed or added

(3) When changing Jig, Tool and Mechanical Equipment

Table 3b: Materials to be Submitted to Suppliers

| Documents to be Submitted | Remarks |
|---|---|
| Any of the following documents (1) Certificate of non-use (2) Analytical data (3) Ingredient table | <ul style="list-style-type: none"> • The format of the non-use certificate is optional. • Analytical data is based on the above-mentioned 6.2.1 Table-3a • Ingredient table is based on the above-mentioned 6.2.1 Table-3a or SDS. |

6.3 Requests for Preparation of Submitted Documents

If submitted by chemSHERPA-AI/chemSHERPA-CI, please submit it in the SHAI file or SHCI file. When creating a SHAI file or SHCI file, please enter the TKR part number in the basic information screen of the creation support tool -> issuer/approver information -> reference number field as shown below.

When outputting the SHAI file and SHCI file, the TKR part number is automatically reflected in the filename.

(Examples of chemSHERPA-AI Entries)

「SHAI_FX00001234000-01_YYYYMMDDhhmmss.shai」

TKR part number Date and time

(Examples of chemSHERPA-CI Entries)

「SHCI_FX00001234000-01_YYYYMMDDhhmmss.shci」

TKR part number Date and time

- Caution: • The content of ingredients should be 100% as much as possible, including optional substances in addition to chemSHERPA controlled substances.
- The chemSHERPA-AI requires both ingredient information and compliance information.

6.4 Submission of Detailed Analysis Data

Please submit Detailed Analysis Data (ICP Measured Data, etc.) as a general rule for all parts and materials to be delivered for the Ten Substances Prohibited {contains Four Types of Phthalates (DEHP, DBP, BBP, and DIBP)} by the RoHS Directive at the time of submission described in Section 6.2. Please submit the Detailed Analysis Data measured within the expiration date (within one year from the analysis completion date) when request by TKR.

Remark: Submission may be requested every year.

In addition, please be sure to confirm that the following items are described when submitting the Analysis Report.

Minimum Requirement

- Pre-Condition Method : Name of the Official Method or the description for others
- Measurement Method : Description or the Official Name
- Names the Analyst / Responsible Person / Institution
- Date of Measurement
- Result of Measurement [Determination Limit Value for N. D. (Not Detectable)]
- Measurement Flowchart
- Sentence of meaning "the complete dissolution"(Apply: Measurement of cadmium and lead contained in plastic)

If the above items are not described in the report, the report shall be resubmitted after the description.

6.5 Specific Requirements of TKR

Depending on the type of TKR products, we may request a survey using documents other than those shown in Table 4.

For example, if TKR manufacturing site has requested in industry standard format such as JAMA sheet issued agreement by Japan Automobile Manufacturers Association (JAMA), Japan Auto Parts Industries Association (JAPIA) or other unique format, please follow that request.

Table 4: Individual Request Materials to be Submitted to Suppliers

| Documents to be submitted | | Forms/materials to be filled in |
|---------------------------|----------------------|---|
| 1 | JAMA Sheets | Please download the latest version from the following website. http://www.japia.or.jp/ |
| 2 | Other Unique Formats | Requests from TKR manufacturing sites |

※ Please submit the JAMA sheets in CSV-file.

We TKR will shift to IMDS soon due to the suspension of JAMA Sheet.

For this reason, please take necessary actions when we may ask our suppliers to register directly with IMDS.

Furthermore, the transition schedule and registration method will be decided after discussions with our supplier separately.

Refer to the following URL for more details.

https://public.mdssystem.com/documents/10906/16811/imds_usermanual_12.2_en.pdf

7. Request for Additional Surveys on Substances of High Concern (SVHC) under the REACH Regulations

In order to comply with the obligation to report in accordance with Article 7 of the European REACH Regulations and the obligation to communicate information in accordance with Article 33, TKR will conduct additional surveys on the content of Substances of High Concern (SVHC) in the parts and materials designated by TKR.

At that time, TKR will separately inform to request the submission of the documents listed below.

| Documents to be submitted | Forms / Documents to be filled in |
|---|-----------------------------------|
| Form-4: TWA-00-09 Survey Sheet of Substances with High Concerns for REACH | |

8. Handling of Information (Management of Disclosure Information)

The information on chemical substances in products provided by suppliers is shared within TKR. Information on chemical substances contained in products of goods delivered may be disclosed to third parties as part of TKR products related information based on information provided by the supply chain and information disclosure to customers.

9. For Inquiries on this Standard

Person in charge of TKR Group Purchasing Department

10. Revision of this Standard

This standards and submission forms may be revised according to changes in laws and regulations, customer requirements, and social changes in each country. Please confirm the latest version from the TKR website and submit it.

11. Enforcement

This standard will come into effect on October 1st, 2020.

12. Revision record

| Version | Revision Dates | Contents of Revision |
|---------|----------------|---|
| 1 | 22/Dec/2004 | • Issued of First Edition. |
| 2 | 01/Sep/2005 | • Reviewed some Sentences. |
| 3 | 22/ Nov/2005 | • Errors in mercury/hexavalent chromium at the XRF threshold in Section 7, and correction of type 1 by Japanese Character in Section 5. |
| 4 | 01/Aug/2012 | • Upgraded to Company-Wide Regulations and changed the name to "TKR Group Green Procurement Standard" according to respond to changes in Customer Requirements and various Laws and Regulations such as REACH Regulations. • Disclosed on Group-wide websites |
| 5 | 01/Nov/2012 | • Unification of the name of "TKR Group" to "TKR". Other supplementary explanations were added. • Section 3. Substances to be Controlled Added explanation and addition of Table 2 • Section 4. (2) "Substances" changed to "Chemical Substances". • Section 4. (3) "Preparation" changed to "Mixture". • Section 6. Requests to Our Suppliers for the Cooperation in Investigations Regarding Green Procurement Added supplementary. Added Tables 3, 4, 5, and 6 and changed the Section number. • Added "Section 7. Request for Additional Surveys on Substances of High Concern (SVHC) under the REACH Regulations" and changed the Section number. |

| Version | Revision Dates | Contents of Revision |
|---------|----------------|---|
| 6 | 10/Jan/2018 | <ul style="list-style-type: none"> • Section 2. Scope Changed Company name in Table-1. • Section 3. Criteria of Management Changed classification and deleted Table 2. • Section 6.4. Submission of Detailed Analysis Data Changed the target of part to "all parts and materials", and added four types of phthalate esters. • Section 6.5. Specific Requirements of TKR Added "chemSHERPA" Data. • Reviewed some sentences. |
| 7 | 01/Mar/2019 | <ul style="list-style-type: none"> • Section 4. Definition of Terms Deleted "JGP file", "JAMP/AIS" and "JAMP/MSDSplus". Added "chemSHERPA-AI" and "chemSHERPA-CI". • Section 6.2. Materials to be Disclosed to Suppliers & Section 6.3. Requests for Preparation of Submitted Documents Changed "AIS / MSDSplus" to "chemSHERPA-AI/ chemSHERPA-CI". • Section 6.5. Specific Requirements of TKR Deleted "AIS / MSDSplus" to "chemSHERPA-AI / chemSHERPA-CI". • Reviewed some sentences. |
| 8 | 01/July/2019 | <ul style="list-style-type: none"> • Section 2. Scope Added name of manufacturing Site (Mexico, Vietnam, Philippines) in Table-1. |
| 9 | 05/Jul/2019 | <ul style="list-style-type: none"> • Section 6.4 Submission of Detailed Analysis Data Added confirmation items before submission. |
| 10 | 06/Jan/2020 | <ul style="list-style-type: none"> • 6.2 Materials to be Disclosed to Suppliers Clarification of mandatory submissions and other documents. • 6.4 Submission of Detailed Analysis Data Reviewed some sentences. • 7 Request for Additional Surveys on Substances of High Concern (SVHC) under the REACH Regulations Change in the place of entry of the submission documents. |
| 11 | 01/Oct/2020 | <ul style="list-style-type: none"> • 2. Scope: Table 1 Correction of manufacturing sites • 4. Definitions of Terms: Addition of IMDS and Detailed Analysis Data • 6.2.2 Addition of Jig, Tool, and Mechanical Equipment • 6.5 Specific Requirements of TKR: Addition of IMDS Contents |



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