

NTN Group
Green Procurement Standards
6th Edition

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NTN Corporation

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<Attachment>

- 1 Request for building environmentally hazardous substance control system
- 2 Reporting of no ELV/RoHS 10 substances contained in products to be supplied
- 3 Conducting analysis of ELV/RoHS 10 substances and preparing evidences

<Form>

- 1 Confirmation sheet for environmental management system
- 2 Check sheet for environmentally hazardous substance control system
- 3 Non-inclusion certification of NTN-prohibited substances
- 4 List of ELV/RoHS 10 substance evidences
- 5 Declaration of containing of NTN-prohibited substances/observation-requisite substances
- 6 Green Procurement Standards Agreement and Company Information Registration Statement

1 Introduction

In line with its corporate philosophy, “We shall contribute to international society through creating new technologies and developing new products,” the NTN Group aims to realize a “NAMERAKA Society” where people can easily lead a secure life in harmony with nature.

NTN’s products, which include bearings and constant-velocity joints, have essentially been positioned as eco-friendly products that reduce energy loss through friction, and they contribute to the realization of a “NAMERAKA Society. To help prevent global warming, NTN is working to reduce greenhouse gas (GHG) emissions associated with our business activities across the entire supply chain, as well as putting tireless efforts into research and development with a view to further improving the performance of NTN’s products and reducing energy consumption worldwide.

Against this background, as management of environmentally hazardous substances has become increasingly important, as part of global environmental loading reduction, we are proactively advancing with firm steps toward the accomplishment of the first-and-foremost subjects for our green procurement activities: 1) reduction of environmentally hazardous substances contained in NTN products; 2) reduction of environmentally hazardous substances used in the manufacturing process; 3) introduction of the production facilities or technologies capable of reducing environmentally hazardous substances. In recent years, regulations on environmentally hazardous substances, which began in EU, have become global standards, and an increasing number of countries has enforced similar laws and regulations, while requests from customers have also become more complicated, and thus not only we at NTN but also our suppliers are required to strictly manage environmentally hazardous substances throughout a supply chain.

Furthermore, we continuously improve the environmental management system in accordance with ISO 14001 to reduce environmental loading, and also ask our suppliers to promote business management taking environmental preservation into consideration, as well as to obtain a certificate of compliance with ISO 14001, Eco Stage, or the like from an accredited third party. We help our suppliers obtain the certification of Eco Stage through NTN Technical Service, one of our subsidiary companies, if they desire to do so.

We hope that you, our suppliers, sufficiently understand the importance of these activities and recognize the observance of the provisions of the Standards is a prerequisite for doing business with you and that you aggressively cooperate with our green procurement program.

2 NTN Environmental Policy

We have established our Environmental Policy as described below and work on environmental preservation across all the business areas including procurement accordingly.

■ NTN Environmental Policy ■

Maintaining harmony with the global environment is our most important challenge. The NTN Group has identified pollution control and preservation of our natural capital as priorities of our business operations. Furthermore, we remain committed to developing technologies that contribute to the emergence of a sustainable society in harmony with nature.

- 1. Developing technology that contributes to prevention of global warming**
By developing technologies and innovative products that contribute to energy efficiency and alternative energy generation worldwide, the NTN Group will contribute to the prevention of global warming.
- 2. Observance of laws and regulations**
The NTN Group will observe all relevant environmental laws, regulations, and ordinances. Moreover, we will proactively take steps to comply with requests from our customers, local communities, and other stakeholders.
- 3. Reducing the environmental impacts of our business operations**
The NTN Group remains dedicated to minimizing the environmental impacts of our emissions of CO₂ and restricted substances across all our business operations. We will endeavor to identify and reduce our environmental impacts in both the upstream and downstream (from supplier to customer) branches of our supply chain.
- 4. Utilizing resources sustainably**
The NTN Group will strive to reduce waste as well as our inputs of water, raw materials, and other resources by remaining focused on reducing, reusing, and recycling.
- 5. Stringently controlling environmentally hazardous substances**
The NTN Group will practice green procurement and conduct stringent management of any environmentally hazardous substances used in our products and processes. We remain focused on adopting benign substitutes for any highly hazardous chemical substances we use in our operations.
- 6. Conserving biodiversity**
In cooperation with local communities, the NTN Group will proactively implement forest preservation, biodiversity conservation, and other environmental protection initiatives.
- 7. Maintaining open communication**
In implementing this Environmental Policy, the NTN Group will seek to improve the environmental awareness of all our employees. In addition, we will widely disseminate information on our environmental initiatives and actively promote open communication with the general public.
- 8. Continuously improving our Environmental Management System**
The NTN Group will implement and continuously improve our Environmental Management System in order to enhance our environmental performance.

3 Objectives

NTN accelerates green procurement through our supply chain under partnership with our suppliers to reduce environmental loading associated with NTN products and business activities and provide our customers with the environmentally-friendly goods in order to fulfill social responsibility imposed on us, a business entity.

4 Concept of Green Procurement

We preferentially deal with suppliers having both good “compliance with environmental laws and regulations, environmental protection efforts (obtaining environmental certificates including ISO 14001, etc. and implementation of environmental management)” and good “environmental qualities of delivery products (not containing hazardous substances, etc.)”.

5 Scope

5.1 Intended suppliers

- The suppliers, who supply materials (parts, materials, sub-materials, process materials, packing/packaging materials and production facility) to be incorporated into NTN products, as well as used in the manufacturing process.
- The contractors, who provide NTN with services such as assembly of parts and other various kinds of operations (forging, cutting, grinding, heat treatment, surface treatment, and so on).

5.2 Target items to be supplied to NTN

All the items to be supplied to NTN for incorporation into NTN products, as well as use in the manufacturing process.

Table 1 Concrete example of the items to be supplied to NTN

Category	Description	Concrete example
Parts/materials	Parts/materials, semi-finished items, finished items, grease, etc. incorporated into NTN products.	Steel materials, workpieces, resin materials/parts, rubber materials/parts, adhesive materials, grease, solder, surface treatment (plating, etc.), sensors, printed circuit boards, motors, etc.
Sub-materials*	Rust-preventive oil, paint, ink, permanent markers, etc. to be possibly coated/used on the NTN products before shipping.	Rust-preventive oil, paint, tape, labels, ink, permanent markers, materials to be used for production, etc. to be possibly coated/used on NTN products.
Materials for production	Oil solutions, grinding stones, etc. used in your production (among which are not coated/used on NTN products at the time of shipment)	Heat treatment oil, machining oil (for cutting or grinding), washing agents, solvents, intermediate rust-preventive oils, grinding stones, etc.
Packing/packaging materials	Materials used for packaging parts and materials, etc., at the time of arrival, and materials packaging NTN product at the time of shipment	Corrugated fiberboards, plastic boxes, trays, plastic bags, buffer materials, pallets, wooden frames, tape, binding materials, labels, printing ink, etc.

* The sub-materials to be used by the suppliers shall be managed assuming that they are classified into parts.

5.3 Compliance obligation of procured items

Confirm the table below for the details to be complied with as they vary depending on the category of the procured items.

Table 2 Compliance obligation of procured items

Procured item Category	Compliance items		7.1 Promotion of business management taking environmental preservation into account					7.2 Control of environmentally hazardous substances and information provision							7.3 Other documents to be submitted (Form 6)		
			7.1.1 Compliance with environmental laws and regulations	7.1.2 Building up of Environmental Management System (certification acquisition from the authorized third party) (Form 1)	7.1.3 Recognition/reduction of CO2 emissions	7.1.4 Activities for biodiversity preservation	7.1.5 Promotion of water risk management	7.2.1 Compliance with control criteria for NTN environmentally hazardous substances	7.2.2 Provision of information on environmentally hazardous substances contained and their composition	7.2.3 Request for building environmentally hazardous substance control system (Attachment 1) (Form 2)	7.2.4 Prohibition of inclusion of NTN-prohibited substances and submission of non-inclusion certificate (Form 3)	7.2.5 Description of confirmation results of non-inclusion of ELV/RoHS 10 substances (Form 4)				7.2.6 Declaration of containing of NTN-prohibited substances/observation-requisite substances (Form 5)	7.2.7 Actions taken when detecting ELV/RoHS 10 substances in sampling analysis
												(Requirement of evidence)					
												Lead, mercury, cadmium, hexavalent chromium	PBB, PBDE	Four types of phthalic acid esters			
Raw materials	Steel material		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Resin, etc.*1		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parts	Resin, etc.*1		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processing			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sub materials	Resin, etc.*1		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturing process materials	In contact with product		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not in contact with product		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Jigs	In contact with product	Resin, etc.*1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Other	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not in contact with product		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Packaging materials	Resin, rubber		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research and development application	Possibility of being provided by customers	Yes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*1 Resin, rubber, adhesive/binder, paint, coating, etc.

[Applicability]

○: Applicable

△: Applicable only to self-supplied materials (including such sub-materials as anti-rust oil, cutting oil, etc.)

▲: Applicable to substances prohibited by NTN (for packaging materials, only lead, cadmium, hexavalent chromium, mercury and phthalic acid esters, MOAH, MOSH)

/: Not applicable

[Applicability of providing document/information]

Underline (double line): Documents need to be submitted according to the Standards

Underline (wavy line): Documents to be submitted according to a separate request from us

6 Definition of terms

The Standards define the terms used herein as follows.

6.1 NTN environmentally hazardous substances

- (1) Substances determined by NTN to have an aspect of significantly affecting the global environment and human well-being.
- (2) Substances, for which limitations and/or information such as its use, application, contents, etc. are expected or may be expected to be disclosed in domestic and international regulations, or customer standards.

6.2 Control level

We control NTN environmentally hazardous substances at the following three levels.

6.2.1 I. NTN-prohibited substances

These are the substances which shall not be intentionally contained and unintentionally contained at the higher levels than their threshold in the products to be supplied to NTN.

6.2.2 II. Observation-requisite substances

Substances required to be immediately declared by the supplier in the case where they are intentionally contained or unintentionally contained at the higher levels than their threshold in the products to be supplied to NTN. Substances (SVHC), for which duty of information notification is imposed on the suppliers mainly under the REACH of chemicals.

6.2.3 III. Substances to be reported as requested by NTN

Substances, for which information on the chemicals contained in the products to be supplied is required to be controlled and to be provided when the examination of the chemical contents is requested by NTN.

6.3 Chemical containing in the products

Chemicals containing, i.e. addition in, filling in, mixture in or adhered to parts composing the products or materials to be used for production of the parts (including chemicals containing such as unintended mixture in or adhesion to the products in the manufacturing process).

6.4 Evidence

Documents certifying that the products to be supplied conform to the Standards (analysis data, ingredient list, mill sheet, SDS conforming to JIS Z 7253, non-inclusion certificate of raw material manufacturer, etc.)

Used to mean “the analytical data for certifying the non-inclusion of ELV/RoHS 10 substances” unless otherwise specified.

6.5 ELV/RoHS 10 substances

Ten substances including four kinds of phthalic acid esters (DEHP, BBP, DBP, DIBP), which were prohibited under the RoHS Directive from July 22, 2019, added to the six substances (lead, mercury, cadmium, hexavalent chromium and two kinds of specific brominated flame retardant (PBB, PBDE)) whose inclusion has been conventionally prohibited under the ELV Directive and the RoHS Directive.

6.6 Control value

The content ratio of ELV/RoHS 10 substances which is not supposedly exceeded if substances are not contained intentionally and appropriately prevented from entering. When a control value is

exceeded in a sampling analysis, the presence of procured items which have values beyond thresholds is suspected depending on analysis errors and variation in procured items.

6.7 Threshold

The maximum allowable concentrations (in laws or the Standards) of the environmentally hazardous substances unintentionally contained in the products, which are computed in material units regarded as homogenous.

6.8 Homogeneous materials

Materials, which cannot be broken down into individual raw materials by mechanical actions such as removal, cutting, crushing, grinding, polishing, etc. (metal alloys, polymer alloys, paint, adhesive agents, ink, plating, etc.) For example, for the rubber seals (rubber + plated steel sheet) for bearings, each of rubber, steel plates, and plated layers is a homogeneous material.

7 Requirements to our suppliers

We would like to request our suppliers to implement the followings.

7.1 Promotion of business management taking environmental preservation into account

To address a wide variety of environmental problems including global warming, business entities are strongly encouraged to implement business management taking environmental preservation into account. Our suppliers shall work on the following requirements.

7.1.1 Compliance with environmental laws and regulations

When environmental laws and regulations are violated, there is a risk that the production activities are interfered by administrative disposition such as suspension of operations, etc. In September, 2017, there was the topical news that a European bearing manufacturer was forced to stop production due to the disposition of operation suspension for a Chinese metal processing manufacturer for the violation of environmental regulations.

Our suppliers are asked to comply with the environmental laws and regulations of their countries and promptly report to us when administrative disposition, etc., which adversely affects their production activities should be suggested due to the violation of laws and regulations.

7.1.2 Building up of Environmental Management System (certification acquisition from the authorized third party)

We request all of our suppliers to build the Environmental Management System (EMS) and acquire certification from the third party authorized by the authority concerned.

Basically, the third-party certification refers to ISO 14001; however, the following third-party certifications may be accepted depending on the business scales of our suppliers.

- EcoAction 21 (Institute for Global Environmental Strategies (IGES))
- KES (NPO KES Environmental Organization)
- Eco Stage (Eco Stage Institute), etc.

The suppliers who have already obtained third-party certifications are requested to maintain, improve and update EMS. The suppliers, who have not yet acquired it, shall commence planning of certification acquisition as soon as possible to successfully achieve.

The suppliers shall submit the following form to NTN with required information filled. We will confirm the progress of EMS building-up based on the submitted information.

<Documents to be submitted/timing of submission>

Documents to be submitted	Timing for submission	Form	Submitted to
Confirmation sheet for environmental management system	<ul style="list-style-type: none"> • When requested by NTN • Within one month after a change is made to the supplier's management system (Certification acquirement, update, withdrawal) 	Form 1	Main purchasing department

7.1.3 Recognition/reduction of CO₂ emissions

CO₂ emissions reduction is a worldwide critical problem to be solved for prevention of global warming.

To contribute to resolving these social issues, NTN has established the target of achieving carbon neutrality. To that end, we are striving to reduce CO₂ emissions not only in our business activities, but across the entire supply chain.

<p>Target of achieving carbon neutrality</p> <p>CO₂ emission reduction targets (Scope 1 and 2)</p> <p>50% reduction by the fiscal year 2030 (compared to the fiscal year 2018)</p> <p>Achieve carbon neutrality by the fiscal year 2035</p> <p>CO₂ emission reduction targets (Scope 3)</p> <p>Achieve carbon neutrality by the fiscal year 2050</p>
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Our suppliers shall make best efforts in recognizing and reducing CO₂ emissions generated by business activities and provide the required information as demanded by NTN.

7.1.4 Activities for biodiversity preservation

Recently, against the background that biodiversity has been brought to a worldwide crisis, Japanese government has put “Basic Act on Biological Diversity” into effect and requires business entities to take actions for biodiversity preservation.

Our suppliers shall promote the actions for biodiversity preservation and report the progress of the activities as requested by NTN. For our policy about biodiversity, refer to Section 6 of the NTN Environmental Policy.

7.1.5 Promotion of water risk management

Business entities are required to understand the risks on business continuity by external factors on water resources (floods, droughts, water pollution, restrictions on available water volume, etc.) globally and to take actions to minimize their adverse effects.

We ask our suppliers as well to promote water risk management and report us its situation when so requested. As the water risk assessment tools for the business entities, AQUEDUCT*¹ of WRI (World Resources Institute) and Water Risk Filter*² of WWF (World Wide Fund for Nature) are publicly available.

*1 <http://www.wri.org/applications/maps/aqueduct-atlas/>

*2 <https://riskfilter.org/>

7.2 Control of environmentally hazardous substances and information provision

As regulations for environmentally hazardous substances have been increasingly institutionalized

throughout the world, they have more stringent influence on business activities. In Europe, in particular, where ELV Directive, RoHS Directive, and REACH have been put in effect, rigorous control of environmentally hazardous substances (certification for nonuse, information provision, etc.) are required in terms of compliance with laws.

In this context, we have prepared our own list of NTN environmentally hazardous substances (**Appendix**) to thoroughly control the entire supply chain. The suppliers shall take the activities for control of environmentally hazardous substances and information provision described below.

7.2.1 Compliance with control criteria for NTN environmentally hazardous substances

The suppliers shall deliver parts, etc, in accordance with the provision “compliance with summary of limitations of use of environmentally hazardous substances in materials, products, and parts (HS-D-SB0001HE)” described in our drawings and purchase specifications. The suppliers, who have not yet received our drawings and purchase specifications from NTN, shall understand information such as “I. NTN-prohibited substances”, “II. NTN observation-requisite substances,” and “III. Substances to be reported to NTN as required” contained in the list of NTN environmentally hazardous substances (**Appendix**) and accordingly, control their parts, etc.; in addition to observe the Standards.

7.2.2 Provision of information on environmentally hazardous substances contained and their composition

The suppliers shall be sure to provide information on contained chemical substances listed in the list of NTN environmentally hazardous substances as requested by NTN (it is not accepted that the suppliers do not disclose such information by assigning it to company secret). The NTN-specified formats (chemSHERPA, JAPIA, originally-developed format, etc.) shall be used to provide information. Ingredients accounting for 90 wt% or more of the material composition shall be disclosed because they are necessary for registration in IMDS* as required by automobile manufacturers and automobile-related manufacturers.

* IMDS (International Material Data System)

The system to contain information on materials of the parts composing automobiles and contained substances in a database, which has been built mainly by leading automobile manufacturers in Japan, U.S., and Europe.

7.2.3 Request for building environmentally hazardous substance control system (Attachment 1)

We would like to ask for your efforts in understanding and managing environmentally hazardous substances contained in or adhering to products delivered to our company and construing a system which can guarantee the non-inclusion of NTN-prohibited substances, especially the ELV/RoHS 10 substances.

It should be noted that we will request that the suppliers perform voluntary inspection once a year. In response to this request, the suppliers shall check the status of their environmentally hazardous substance control using the check sheet (**Form 2**) and submit the result to NTN. If any failure in the control status is indicated, NTN may request that you improve the control system and, in some cases, we may visit the suppliers for field investigation. We will elicit cooperation from the suppliers in conducting field investigation.

<Documents to be submitted/submission timing>

Documents to be submitted	Timing for submission	Form	Submitted to
Check sheet for environmentally hazardous substance control system	<ul style="list-style-type: none"> • At start of business • When required by NTN (Once a year in principle)	Form 2	Main purchasing department

7.2.4 Prohibition of inclusion of NTN-prohibited substances and submission of non-inclusion certificate

As for the products to be supplied to us, intentional inclusion of NTN-prohibited substances is prohibited, regardless of their contents, and unintentional inclusion of those substances in amounts higher than the threshold values is prohibited.

We ask our suppliers to submit “Non-inclusion certification of NTN-prohibited substances (**Form 3**)” as a proof of conformity to this requirement. The Green Procurement Standards and Appendix are effective for 30 days after distribution or until the date of submission of documents stipulated by NTN, whichever is later. Please complete the “Non-inclusion certification of NTN-prohibited substances ” (Form 3) and submit it to NTN by the submission deadline.

The applications exempt from RoHS designation are also exempt in the Standards. Since their respective expiration dates are established and continuous reviewing is made, manage the exemptions according to the latest information obtained from the EU’s website, etc.

<Documents to be submitted/submission timing>

Documents to be submitted	Timing for submission	Form	Submitted to
Non-inclusion certification of NTN-prohibited substances	<ul style="list-style-type: none"> • At start of business • When required by NTN (Once a year in principle) 	Form 3	Main purchasing department

7.2.5 Description of confirmation results of non-inclusion of ELV/RoHS 10 substances

Position the non-inclusion of the ELV/RoHS 10 substances as a critical quality attribute, and enter the results of confirmation of non-inclusion in the test result report according to the procedure in **Attachment 2**.

Moreover, although the submission of the evidence which is the basis thereof for each lot is not required, prepare and submit the evidence in accordance with **Attachment 3** and the table below.

As the substances requiring evidence vary depending on the procured item, refer to **Table 2**.

<Documents to be submitted/submission timing>

Documents to be submitted	Timing for submission	Form	Submitted to
Test result report (Record the result of analytical verification)	Every lot	Add in your own form	Product purchasing departments
List of ELV/RoHS 10 substance evidences and their supporting evidences	<ul style="list-style-type: none"> • When required by NTN • At first arrival of new item • At first arrival of process change item 	Form 4	

7.2.6 Declaration of containing of NTN-prohibited substances/observation-requisite substances

In the products to be supplied to us, if it is found that NTN-prohibited substances and declarable essential substances are intentionally contained or unintentionally exceeding the threshold value, declare it immediately and voluntarily.

Be sure to meet this requirement because this declaration is requisite to perform the domestic/international legal duties.

* The substances, which has been known to be contained in parts but not reported to NTN, shall be declared to NTN.

<Documents to be submitted/submission timing>

Documents to be submitted	Timing for submission	Form	Submitted to
Declaration of containing of NTN-prohibited substances/observation-requisite substances	Immediately after it is known that substances are contained in parts	Form 5	Main purchasing department

7.2.7 Actions taken when detecting ELV/RoHS 10 substances in sampling analysis

We at NTN and our customers check for the presence or absence of inclusion of ELV/RoHS 10 substances by the sampling analysis at the time of acceptance of procured items.

Should contents exceeding the control values in the table below be detected in our acceptance analysis, or should inclusion exceeding the standard value specified by our customers in customer's acceptance analysis be detected, we request that our suppliers clarify the reason and lower the concentration of the contained substances below the control value as necessary.

Table 3 Control values

Applicable substance	Control value (ppm)	
1) Lead and compounds thereof (Pb)	Resins	100
	Other	500
2) Mercury and compounds thereof (Hg)		500
3) Cadmium and compounds thereof (Cd)	Resins	20
	Other	75
4) Hexavalent chromium compounds (Cr6+)		500
5) Polybrominated biphenyls (PBB)		500
6) Polybrominated diphenyl ethers (PBDE)		500
7) Di-2-ethylhexyl phthalate (DEHP)		500
8) Butyl benzyl phthalate (BBP)		500
9) Di-n-butyl phthalate (DBP)		500
10) Di-isobutyl phthalate (DIBP)		500

7.3 Other documents to be submitted

Please agree to the NTN Green Procurement Standards initiative and, to clarify the company information and responsibility system of the suppliers, submit the following documents. The Green Procurement Standards and Appendix are effective for 30 days after distribution or until the date of submission of documents stipulated by NTN, whichever is later. Please complete the "Green Procurement Standards Agreement and Company Information Registration Statement" (Form 6) and submit it to NTN by the submission deadline.

<Documents to be submitted/submission timing>

Documents to be submitted	Timing for submission	Form	Submitted to
Green Procurement Standards Agreement and Company Information Registration Statement	<ul style="list-style-type: none"> At start of business When required by NTN Within one month from time of change of described information 	Form 6	Main purchasing department
Survey Form for Information on Products Containing Environmentally Hazardous Substances	<ul style="list-style-type: none"> When required by NTN(except at the point of revisions to the Green Procurement Standards and Appendix) 	Forms attached to the Appendix	Main purchasing department

7.4 Effective Dates of the Green Procurement Standards and Appendix

The Green Procurement Standards and Appendix are effective for 30 days after distribution or until the date of submission of documents stipulated by NTN, whichever is later.

8 Handling of information

We handle properly personal information on the suppliers in accordance with laws and other norms. It should be noted that in some cases, information on environmentally hazardous substances in products to be procured, etc., are externally published as part of information on our products.

9 Contact

Matters concerning the submission of forms, etc.

Division to which products are delivered Quality Assurance Department

Matters concerning the contents of the Green Procurement Standards

ESG promotion Dept, Group Management HQ, NTN Corporation

Phone: +81-6-6449-3517

Fax: +81-6-6443-1578

Other matters (when there are matters related to procurement and quality other than the abovementioned (where necessary))

Procurement Department, SCM Strategy HQ, NTN Corporation

Phone: +81-6-6449-3565

Fax: +81-6-6443-1577

Quality Management Department, Quality Headquarters, NTN Corporation

Phone: +81-6-6449-3607

Fax: +81-6-6443-1578

10 Supplementary provisions and revision history

The Standards will be brought to operation as of 1st April, 2018.

The Standards may be revised as requested by domestic/international laws or our customers, as well as when state of society is changed. The latest version can be obtained from our website.

[History]

Edition	Date of revision	Details of revision
1st Edition	1st March, 2007	Established
2nd Edition	10th December, 2007	Minor revisions, such as clarification of where to submit various forms
3rd Edition	11th January, 2011	<ul style="list-style-type: none">• Changed classification of NTN environmentally hazardous substances from two categories (NTN-prohibited, observation) to three categories (NTN-prohibited, observation-requisite, reported as requested). Added “observation-requisite substances” to comply with the obligation to communicate information on Substances of Very High Concern (SVHC) under EU REACH Regulation.• Reviewed applicable substances To comply with revisions to various domestic and foreign laws and regulations, industry standards, and customer standards.

Edition	Date of revision	Details of revision
		<ul style="list-style-type: none"> • Added requests relating to CO2 reduction and LCA/environmental efficiency, and conservation of biodiversity.
4th Edition	1st April, 2012	<ul style="list-style-type: none"> • Revised NTN environmentally hazardous substances list Added three NTN-prohibited substances in response to changes in laws and regulations and industry/customer standards. Added 27 substances to the list of observation-requisite substances in response to the addition of SVHC under EU REACH Regulation.
5th Edition	1st April, 2018	<ul style="list-style-type: none"> • Changed four phthalic acid esters from “NTN-prohibited substances (to be regarded as “observation-requisite substances” until a deadline separately stipulated by NTN)” to “NTN-prohibited substances,” in anticipation of revisions to EU RoHS Directive. • Reviewed applicable substances Added SVHC under EU REACH Regulation, added after the 4th Edition, to observation-requisite substances, and added/deleted/resorted other substances. • Added a list of “Compliance obligation of procured items” Clarified the matters that should be complied with for each procured item. • Added a request to suppliers to promote water risk management. • Reviewed the attachments and forms.
6th Edition	3rd June, 2024	<ul style="list-style-type: none"> • The list of NTN environmentally hazardous substances, previously an attachment in the Green Procurement Standards, was separated from the Standards as a standalone Appendix. (Please refer to “Supplementary provisions and revision history” for details on the main revisions made to the list of NTN environmentally hazardous substances.) • Added NTN’s carbon neutrality targets.

[Attachment 1] Request for building environmentally hazardous substance control system

With regard to products supplied to NTN, please manage the inclusion and incorporation of substances stipulated in the list of NTN environmentally hazardous substances (Appendix), and establish a system for reporting to NTN as well as an assurance system (particularly for non-inclusion of ELV/RoHS10 substances). The substances to be reported as requested by NTN are set out as follows.

The suppliers can make reference to guidelines for environmentally hazardous substance control published by “Joint Article Management Promotion-consortium (JAMP)” (available from our website).

1 Control of upstream end

1.1 Supply chain

- [1] Make a list of parts, materials, sub-materials, and packaging materials (hereinafter, simply referred to as parts, etc. and packaging materials) composing the products to be supplied to NTN and their suppliers for control.
- [2] Trace the supply chain of parts, etc. and packaging materials back to raw material manufacturers and make a list of them for control.
- [3] Provide your environmentally hazardous substance control criteria to your suppliers, request them to conform to the criteria, and understand the status of environmentally hazardous substance control performed by your suppliers by means of audit or with reference to submitted check sheets.

1.2 Recognition of information on substances contained in parts, etc. and packaging materials

- [1] Obtain composition tables, analytical data, mill sheets, SDS, etc. for parts, etc. and packaging materials from your suppliers or request your suppliers to conduct an investigation to recognize information on environmentally hazardous substances contained in products to be supplied.
- [2] It is required to obtain analytical data on ELV/RoHS 10 substances.
- [3] Obtain information on environmentally hazardous substances contained in sub-materials (process materials possibly to be attached to products to be supplied to NTN)
- [4] Routinely obtain up-to-date information and inquire about unclear points, if any, to your suppliers.

1.3 Design and development control

- [1] Confirm that all the parts, etc. meet the NTN Green Procurement Standard at the stages of design and development.
- [2] Specify the environmentally hazardous substance control criteria, for example, “Shall meet the NTN Green Procurement Standard” on drawings.

2 Process control

2.1 Acceptance inspection

- [1] Perform acceptance inspection on products to be delivered by your suppliers by a method capable of addressing their risks. For example, check the product name and product ID, make reference to information on contained environmentally hazardous substances and analytical data provided by your suppliers, perform internal sampling inspection, and so on.

2.2 Process control

- [1] Differentiate between products containing environmentally hazardous substances and products containing none of these substances to prevent both kinds of products from being mixed.

- [2] Specify the ID numbers and names of some sub-materials, which may be mixed externally, on Summary of operations, etc. (e.g. permanent markers to be used for marking on products).
- [3] Because phthalate esters have high migration characteristics, make sure to recognize parts and packaging materials in the materials and the manufacturing process containing phthalate esters, and substitute them with those without phthalate as much as possible. If it is not possible, take actions to prevent migration, such as separating equipment and jigs.

3 Change control

- [1] Check that the state of environmentally hazardous substances (especially ELV/RoHS 10 substances) contained in parts, etc. has not changed when the design or process is changed.
- [2] If any change is observed, report what type of change has occurred in the “application for approval of process change” and take appropriate actions in accordance with NTN instructions.

4 Actions to be taken in case of abnormalities

- [1] If any abnormality in quality is observed in products to be supplied to NTN such as “NTN-prohibited substances” mixed into or adhered to these products, at delivery, immediately make contact with NTN to receive instructions. Investigate the cause for the abnormality, take actions for prevention of recurrence, and report them to NTN. The contact and reporting format depend on the cases of abnormalities in product quality.

5 Confirmation before shipping

- (1) Be sure to recognize and confirm information on environmentally hazardous substances contained in products to be supplied to NTN before shipping (Establishment of traceability and sharing of information).
- (2) Confirm products to be supplied to NTN by the best method (confirmation described in sections 1 to 4, internal sampling inspection, etc.) capable of addressing the risk of mixing of environmentally hazardous substances in these products.

6 Disclosure of information to NTN

- (1) Disclose information specified in the “NTN Green Procurement Standard” and information necessary for confirmation in accordance with newly added laws or customer standards immediately when requested by NTN.
- (2) If it is known that unreported “NTN-prohibited substances” and “NTN observation-requisite substances”, in particular, are contained in products to be supplied to NTN, voluntarily report it to NTN as soon as possible (**Form 5**).

[Attachment 2] Reporting of no ELV/RoHS 10 substances contained in products to be supplied

Positioning non-containing of ELV/RoHS 10 substances (lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP and DIBP) to be an important quality attribute, NTN makes sure that they are not contained in products to be supplied to NTN. You should report non-containing of these ten kinds of substances to NTN as apart of quality assurance.

1 Confirmation with reference to written non-containing of environmentally hazardous substances in the shipping inspection sheet and the evidence

- Specify “Non-containing of ELV/RoHS 10 substances confirmed” in your shipping inspection standard.
- At the first arrival of new items and the change of processes, for all components, individual and appropriate evidence is obtained from suppliers, or they are analyzed by your company (including outsourced analyses). It is recommended that you obtain evidence from raw material manufacturers in the upstream of the supply chain.)
- Substances which require evidence for each category of procured items in Table 2 of the section 5.3, of the body text, to follow **Attachment 3** for appropriateness of evidence

It should be noted that in some cases we request the suppliers to perform more rigorously confirmation of non-containing of environmentally hazardous substances depending on the risk of mixing of ELV/RoHS 10 substances in products to be supplied to NTN or as requested by our customers.

2 Reporting the result of non-containing confirmation written in the test result report

- Based on the result of confirmation described in the previous section, report the result of ELV/RoHS 10 substance confirmation using the test result report for each of lots. (It is not required to obtain new evidence if no change is made to the process, etc.)

[1] Record the result of non-containing confirmation based on the evidence in your test result report (attach the table shown below to the report and check in the box if applicable).

Item	Result (check in the applicable boxes and fill the names of substances in spaces).	
Result of ELV/RoHS 10 substance non-containing confirmation	<input type="checkbox"/> New <input type="checkbox"/> Existing	<input type="checkbox"/> Non-containing confirmed in all the composing parts based on the evidence <input type="checkbox"/> Non-containing confirmed based on the evidence except for _____ as instructed by NTN
	<input type="checkbox"/> Change	<input type="checkbox"/> Not changed <input type="checkbox"/> Non-containing confirmed in all the composing parts, to which change was made, based on the evidence

- * If the test result report has no space for filling the descriptions in the table shown above, submit this table together with the report as an attachment. Alternatively, it may be accepted that only the items necessary for delivery are extracted for simplification so that they may be described in the test result report provided that the following requirements are met.
 - Obtain agreement of the department, to which products are delivered, in advance.
 - Make sure that it is specified in your procedure, etc. to attach the formal table as an

attachment when you are requested to report the contents of omitted items (“new products” and “when change is made” in the example shown below).

[Example of simplification]

Item	Confirmation	
Result of ELV/RoHS 10 substance non-containing confirmation	<input type="checkbox"/> Existing	<input type="checkbox"/> Non-containing confirmed in all the composing parts based on the evidence

- [2] At the time of the first delivery of new items and process change items, attach the “List of ELV/RoHS 10 substance evidences (**Form 4**),” which is a summary of confirmation results, and the evidence which serves as a basis.

Any products to be delivered, for which no result of non-containing confirmation is described, are considered to be rejected and not accepted by NTN.

3 Exception for reduced description of non-containing confirmation

For products to be supplied to NTN, which meet the **requirements 1 and 2**, it is accepted that the result of non-containing confirmation is added in or attached to the test result report only when new products are initially delivered or changes are made to the design or process. (It is not required to add the result for each lot.)

[Requirement 1] (The description may be reduced provided that both the requirements 1 and 2 are met)

- [1] Products to be analyzed

Products to be supplied to NTN, which have been formed by any of the forging, turning, grinding, and heat-treatment steps or the combination of them from the materials/formed & fabricated materials supplied by NTN

- [2] Submission of regular report form

“Check sheet for environmentally hazardous substance control system (**Form 2**)” and “Non-inclusion certification of NTN-prohibited substances (**Form 3**)” shall be submitted to NTN once a year.

[Requirement 2]

As for sub-materials and process materials, submit non-inclusion certification of NTN-prohibited substances (**Form 3**), List of RoHS/ELV 10 substance evidences (**Form 4**) and evidence to support it in advance, and make sure that they are on the accepted product list created by a business site to which you deliver. (For the acceptable product list, contact the purchasing department of each business site.)

[Attachment 3] Conducting analysis of ELV/RoHS 10 substances and preparing evidences

1 Considerations in conducting analysis

- Analysis of ELV/RoHS 10 substances is conducted in accordance with the latest version of IEC 62321* in principle. Any alternative methods may be accepted provided that they are appropriate for analysis.
- If the products to be supplied to NTN are formed of more than one member or are composite materials, each of homogeneous materials of the composing element shall be measured.
- An analytical instrument to be used shall be optimized in advance. The standard specimens (selected specimens suitable for measurement, sample constitution/shape, etc.) shall be measured to obtain the working curve and checked for any variation in instrument (σ value), etc. Make sure that certificate for NTN threshold measurement may be given to the instrument based on the result of checking.

*IEC 62321: “Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated biphenyl ethers)”
International standards established by International Electrotechnical Commission (IEC) regarding test measurement for RoHS analysis.

2 Analysis flow and analysis method

The analysis flow is shown in **Fig. 1** and the analysis method in **Table 1**.

First, conduct a screening analysis, and further perform a high-precision analysis for samples that have higher values than the control value to determine the final acceptance. (Alternatively, perform a high-precision analysis in the first place.)

Make sure that the quantification limit of your analytical method is lower than the controlled value in **Table 1**.

It should be noted that for the model numbers for specific customers, data from high-precision analysis is required because data from screening analysis is not allowed. The data shall be submitted as requested by NTN.

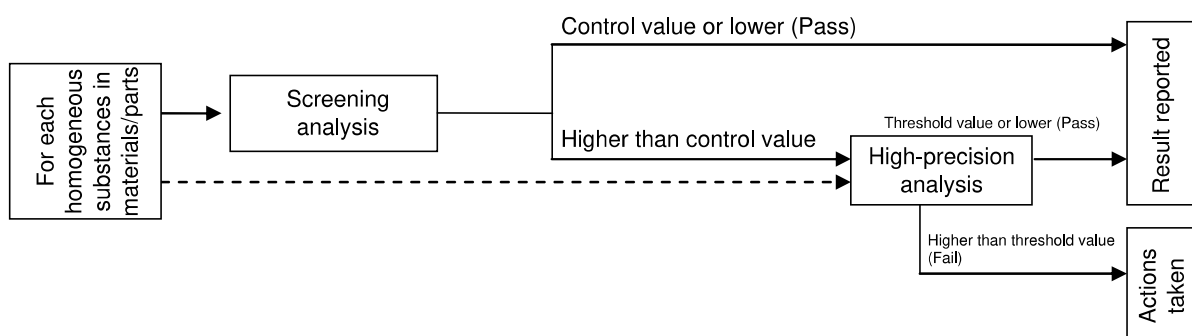


Fig. 1 Analysis flow

(When our company separately specifies the method of analysis, follow the instructions)

Table 1 Target substances and analysis methods

Target substance	Main screening analysis method	High-precision analysis method	Control value	Threshold value*2
Lead (Pb)	Fluorescent X-ray analysis (XRF)*1	(1) Inductively coupled plasma atomic emission spectrometry (ICP-OES)	500 ppm Resins: 100 ppm	1000 ppm
Mercury (Hg)			500 ppm	1000 ppm
Cadmium (Cd)		(2) Inductively coupled plasma mass spectrometry (ICP-MS)	75 ppm Resins: 20 ppm	100 ppm
			(3) Atomic absorption spectrometry (AAS)	
Hexavalent chromium (Cr ⁶⁺)		Diphenylcarbazide absorptiometry	500 ppm	1000 ppm
Two types of specific brominated flame retardants PBB, PBDE			500 ppm	1000 ppm
		500 ppm	1000 ppm	
Four type of phthalic acid esters DEHP, BBP, DBP, DIBP	Thermal desorption – Gas chromatography mass spectrometry (TD-GC/MS)	Solvent extraction – Gas chromatography mass spectrometry (GC/MS)	500 ppm	1000 ppm

*1 Confirm the total amount of chromium in the case of hexavalent chromium; confirm the total amount of bromine in the case of PBB and PBDE; and perform a separate high-precision analysis for the sample with a value higher than the control value.

*2 As for the packaging materials, the total amount of lead, mercury, cadmium and hexavalent chromium is 100 ppm or lower, and the amount of the phthalic acid esters is 1000 ppm or lower, respectively.

3 External analysis organization

If the analysis is outsourced, request the analysis to the analysis organization certified to **ISO 17025 [JIS Q 17025]**. Some of the customers shall accept only the evidence that are analyzed by certified organizations. If not analyzed by such an organization, we may have to ask you for re-measurement.

4 Preparing evidences

As for all components, obtain individual appropriate evidence from the supplier, or analyze them according to **sections 2 and 3** described above (including external request analysis). (To reduce the burden of expense in your company, it is highly recommended that you obtain the evidence of raw material manufacturers in the upstream of the supply chain.)

The format of the evidence may be that obtained from the suppliers and analysis organizations and that output from the software of the analysis device of its own company. However, be aware that we may ask you to re-submit the evidence when the information is insufficient.

Summarize the evidence information for each of those components in **Form 4** as the information for each product. The procedure and example of how to fill out the form are shown below.

Procedure and example of how to fill out form

To: Product purchasing department

Prepared on: _____,
 Company name: OO Company
 Division: xx Department

[Form 4] List of ELV/RoHS 10 substance evidences

Approved by:	Checked by:	Prepared by:
Author's contact (TEL):		

Fill the element name for each composing element (the homogeneous material for compound materials).

Fill the quantitative/qualitative analysis report No.

Fill an applicable number in the columns.
 [1] Parts to be purchased
 [2] Sub-materials to be purchased
 [3] Materials to be purchased
 [4] Interior parts to be purchased
 [5] NTN-supplied products
 [6] Other

Fill the supplier (manufacture) for supplied products in the column.

Be sure to fill 3σ for fluorescent X-ray analysis.

Fill an applicable abbreviation.
 • EDX (Energy dispersive X-ray spectrometry) (3σ value required)
 • WDX (Wavelength dispersive X-ray spectrometry) (3σ value required)
 • ICP-AES (Inductively coupled plasma emission spectrometry)
 • ICP-MS (Inductively coupled plasma mass spectrometry)
 • AAS (Atomic absorption spectrometry)
 • GC/MS (solvent extraction gas chromatograhly mass spectroscopy)
 • TD-GC/MS (thermal desorption gas chromatograhly mass spectroscopy)
 • Absorptiometry (Diphenylcarbazine absorptiometry)

Fill the applicable number in the column.
 [1] Internal measurement
 [2] External measurement (by ISO 17025 certified organization)
 [3] External measurement (by ISO 17025 non-certified organization)
 [4] Measurement by your supplier (by ISO 17025 certified analysis organization) including 2nd- and lower-order suppliers
 [5] Measurement by your supplier (by ISO 17025 non-certified analysis organization) including 2nd- and lower-order suppliers
 [6] Converted value of measured value of material

Product No./name		Seal (6800LU)								
Composing elements		Rubber	Cored bar							
Material name		NBR	SPCC							
Report No.		OO-xx	OO-xx							
Purchasing method		[3]	[1]							
Supplier		Company A	Company B							
Target environmentally hazardous substances (measured value, 3σ is expressed in ppm)	Lead	Measured value	56	40						
		3σ	20	15						
		Measuring method	XRF	XRF						
		Data source	[3]	[3]						
	Mercury	Measured value	18	30						
		3σ	10	20						
		Measuring method	XRF	XRF						
		Data source	[1]	[3]						
	Cadmium	Measured value	2	15						
		3σ	—	10						
		Measuring method	ICP-AES	XRF						
		Data source	[3]	[3]						
	Hexavalent chrome	Measured value	100	30						
		3σ	—	—						
		Measuring method	Absorptiometry	AAS						
		Data source	[1]	[3]						
	PBB	Measured value	1	—						
		3σ	—	—						
Measuring method		GC/MS	—							
Data source		[3]	—							
PBDE	Measured value	1	—							
	3σ	—	—							
	Measuring method	GC/MS	—							
	Data source	[3]	—							
DEHP	Measured value	64	—							
	Data source	TD-GC/MS	—							
BBP	Measured value	103	—							
	Measuring method	TD-GC/MS	—							
	Data source	[1]	—							
	Measured value	78	—							
DBP	Measuring method	TD-GC/MS	—							
	Data source	[1]	—							
DIBP	Measured value	56	—							
	Data source	TD-GC/MS	—							
Acceptance (O x)		O	O							

Fill the result of check on the above items.

Check before submission

1) Filled in all columns concerning all composing elements (parts, materials, sub-materials, process materials, and packing/package materials).	O, x
2) Filled the results of checking of all the composing elements in the column Acceptance.	O

Fig. 2 Procedure and example of how to fill out Form 4

To: Main purchasing department

[Form 1] Confirmation sheet for environmental management system

Company name: _____

Division: _____

Written by: _____

Date: _____

1. Acquisition status of the third-party environmental certification (Circle the applicable item.)

1. ISO 14001 certification already acquired

Acquired on: _____, Certification body [_____]

Certificate No*: [_____]

* Attach a copy of your certificate to this sheet.

→ **Entry may be omitted on the next page.**

2. Certification to ISO 14001 is being sought

Expected acquisition date: _____, Certification body [_____]

→ **Entry may be omitted on the next page.**

3. Other third party certification has been obtained or is being sought

[] Eco Stage (Eco Stage Institute)

[] EcoAction 21 (Institute for Global Environmental Strategies (IGES))

[] KES (NPO KES Environmental Organization)

Certification [Certification obtained, certification being sought]

Acquired on: [_____, _____] Expected acquisition date: [_____, _____]

Certification body [_____] Certificate No.* [_____]

* Attach a copy of your certificate to this sheet.

→ **Entry may be omitted on the next page.**

4. Third-party certification has not been obtained or sought

→ **Fill "Current state of environmental preservation activities" on the next page.**

2. Current state of environmental preservation activities (Entry may be omitted if you have filled 1. to 3. on the previous page.)

(Yes: [○], No: [×], Not applicable: [-])

[Corporate philosophy and policies]	
(1) We have a corporate philosophy of environmental preservation.	[]
(2) Having established our environmental policy, we set continuous improvement and pollution prevention.	[]
(3) We pledge to comply with legal control as is provided in the environmental policies.	[]
(4) All the employees at our company are devoted to thoroughly implementing environmental policies and the policies are available to the third party.	[]
(5) We fully understand the requirements of the NTN Group Green Procurement Standard and are implementing them throughout the company.	[]
[Objectives and goals]	
(6) We set goals toward environmental preservation.	[]
(7) We clarify organizations and persons responsible for achieving the environmental goals.	[]
(8) We have an implementation plan to achieve the environmental goals.	[]
[Environmental assessment/system]	
(9) We control/assess air pollution and report the result to the top management; accordingly, we make every effort to improve the current state of environment.	[]
(10) We control/assess water pollution and report the result to the top management; accordingly, we make every effort to improve the current state of environment.	[]
(11) We control/assess noise/vibration and report the result to the top management; accordingly, we make every effort to improve the current state of environment.	[]
(12) We control/assess waste disposal and report the result to the top management; accordingly, we make every effort to improve the current state of environment.	[]
(13) We control/assess energy consumption (electricity, gas, fuel, etc.) and report the result to the top management; accordingly, we make every effort to improve the current state of environment.	[]
(14) We use no NTN-prohibited substances in our establishments.	[]
(15) A product assessment system is in place for environmental preservation.	[]
(16) A risk management system capable of coping with emergencies, if any, is in place.	[]
(17) An internal environmental audit system is in place.	[]
(18) A document management system is in place.	[]
[Education/information service]	
(19) Environmental education for employees is implemented.	[]
(20) In particular, a list of persons engaged in the work with possible significant environmental impact is created and the education and training are implemented.	[]
(21) Information on environmental preservation is continuously provided to employees.	[]

To: Main purchasing department

[Form 2] Check sheet for environmentally hazardous substance control system

Supplier code:	Checked on:
Supplier name:	Person in charge:
Address:	Checked by:

Achievement rate	100%
------------------	------

0. Internal use of ELV/RoHS 10 substances	
0	<p>Do you use finished products, parts, materials, sub-materials process materials and/or packing/package materials (regardless of your customers or usages)?</p> <p>(1) (Circle either YES or NO)</p> <p>(2) If you answered YES] Substance(s): Application: Are they involved in production of product delivered to NTN? YES/NO</p>

[Scoring method]
 Scoring range: Requirements 1. to 5.
 Distribution of points: Priority item 2 points x 10 questions, normal item 1 point x 10 questions (up to 30 points)
 Achievement rate = total score - highest point (excluding non-target) x 100 (rounded off to the first decimal place)
 [Acceptance criteria]
 0. When (1) is yes: Achievement rate of 80% or higher is acceptable
 0. When (1) is no: Achievement rate of 60% or higher is acceptable

Double underline: Important item

Enter "In progress: O" or "Deficiency found: x" or "Not applicable: -" in assessment column

Requirements	Items to be checked	Determination criteria	Assessment	Specific activities in operation, challenges, etc.
1. Definite definition of in-house product supply chain				
1.1 We control procurement parts, materials, and sub-materials (hereafter, simply referred to as procurement products).	(1) Do you manage the list of all the procurement products so as to recognize individually?	We manage the list in the form of paper or electronic data.		
	(2) Do you have the list of persons in charge of environmentally hazardous substance control over all the procurement products?	Same as above		
1.2 We have definitely defined the supply chain to ensure that procurement products comply with the provisions (laws, ordinances, agreements, and NTN requirements) concerning environmentally hazardous substance control.	(3) To comply with the environmentally hazardous substance regulations, is the supply chain clear, including the secondary and further suppliers?	n-order suppliers recognize the next (n+1) suppliers.		
	(4) Do you have the list of persons at the above suppliers in charge of environmentally hazardous substances?	n-order suppliers recognize the person in charge at the next (n+1) suppliers.		
2. Definite definition of requirements to suppliers				
2.1 We have defined the requirements for environmentally hazardous substance control to the suppliers.	(5) Do you have defined requirements for environmentally hazardous substance control to the suppliers and the provisions and standards concerning the practical method for implementing them?	We have documented them in the form of paper and electronic data.		
2.2 We give the instructions for stringent management pertinent to the provisions concerning environmentally hazardous substances to the suppliers.	(6) Have you informed of the policies of control, reduction, and change of environmentally hazardous substances to the suppliers through a presentation meeting or written document?	We have the materials delivered to the suppliers and the minutes of the policy presentation meeting.		
	(7) Do you give instructions for nonuse of environmentally hazardous substances for each procurement product in terms of drawings, purchasing specifications, etc?	We specify nonuse of environmentally hazardous substances in all the drawings and procurement specifications.		
2.3 We confirm the suppliers' environmentally hazardous substance control system.	(8) Do you have defined procedures for confirming the suppliers' environmentally hazardous substance control system (including process investigation)?	We have documented them in the form of paper and electronic data.		
	(9) Do you have obtained the results of confirmation of the suppliers' environmentally hazardous substance control system?	We have the record of the results of confirmation of suppliers' control system in the form of paper or electronic data.		
3. Stringent management for suppliers' procurement substances				
3.1 We have defined the acceptance criteria for environmentally hazardous substances contained in the procurement products.	(10) Do you have defined rules and standards stipulating the acceptance criteria in accordance with the provisions concerning environmentally hazardous substances, which is applicable at product delivery?	We have documented them in the form of paper and electronic data.		
3.2 We obtain the certificate of nonuse of ELV/RoHS 10 substances issued by the suppliers.	(11) Do you obtain the evidence of nonuse of ELV/RoHS 10 substances for each procurement product from the supplier?	We have obtained any form of evidence of nonuse certificate (evidence list, evidence, etc.)		
3.3 We can analyze ELV/RoHS 10 substances contained in the procurement products.	(12) Do you confirm the analysis of ELV/RoHS 10 substances in accordance with analytical standard of ELV/RoHS 10 substances (including an external analysis organization)?	We have the documented results of analysis in the form of paper or electronic data.		
4. Establishment and maintenance of environmentally hazardous substance control system				
4.1 We have established our own (Technical, Manufacture, and Quality Assurance Departments) environmentally hazardous substance control system to monitor nonuse of ELV/RoHS 10 substances and prevent their mixture in the products.	(13) Do you report the current state of environmentally hazardous substance control at the meeting, etc., to your management and employees and make efforts to improve.	We have the minutes of the meeting and the records of the results and progress of improvement activities.		
	(14) Do you assess compliance with nonuse of ELV/RoHS 10 substances in accordance with the standard at the designing and production preparation stages?	We have the records of assessment in form of paper or electronic data.		
	(15) Do you monitor nonuse of ELV/RoHS 10 substances in accordance with the standard when making changes to the process (materials, sub-materials, suppliers, etc.)?	We have the records of assessment in form of paper or electronic data.		
	(16) Do you conduct internal audit of the environmentally hazardous substance control system regularly?	We have the records of assessment in form of paper or electronic data.		
4.2 We have defined the measures to be taken in case of detection of ELV/RoHS 10 substances in the products.	(17) Do you have the rules concerning the measures to be taken in case of detection of ELV/RoHS 10 substances higher than their thresholds in the products?	We have the rules in the form of paper or electronic data (Acceptance Standard, Summary, etc). We also have the records of the measures taken when ELV/RoHS 10 substances were detected, if any.		
5. Assurance of nonuse of environmentally hazardous substances in the products to be supplied to NTN				
5.1 We can submit the certificate (evidence) of nonuse of ELV/RoHS 10 substances as requested by our customers.	(18) Do you have defined provisions concerning the procedure for submitting the evidence or report of nonuse of ELV/RoHS 10 substances to your customers?	We have documented them in the form of paper and electronic data.		
	(19) Can you submit the results of analysis of ELV/RoHS 10 substances as requested by NTN?	We have ever submitted any evidence to NTN or other customers.		
5.2 We can report the substances (constituents) contained in the products using the JMDS/JAMA data sheet.	(20) Can you submit the report according to the NTN requirement (every constituent of which content is 90% or more shall be disclosed) in the NTN-defined format?	We have ever submitted the record according to the NTN requirements. (If you have never, the reports to your customers are permissible.)		

To: Main purchasing department

Date: _____

[Form 3] Non-inclusion certification of NTN-prohibited substances

Company name: _____ Company seal

Department/title: _____

Person in charge: _____

We guarantee that all products supplied to the NTN Group do not intentionally contain NTN-prohibited substances set out in the Appendix–List of NTN Environmentally Hazardous Substances (ver.1) of the NTN Group Green Procurement Standards, and that impurities and variations are within the threshold values. We also guarantee that the ELV / RoHS 10 substances are within the threshold values with the evidences (analysis data), and that the evidences which have been already submitted to your company are valid. Should any prohibited substance(s) are detected in violation of the mentioned above assurance and NTN Group suffer damage, we will take measure for your damage in good faith.

[ELV/RoHS 10 substances and their thresholds]

1) Lead and its compounds (Pb)	Threshold	1000 ppm
2) Mercury and its compounds (Hg)	Threshold	1000 ppm
3) Cadmium and its compounds (Cd)	Threshold	100 ppm
4) Hexavalent chromium compounds (Cr ⁶⁺)	Threshold	1000 ppm
5) Polybrominated biphenyls (PBB)	Threshold	1000 ppm
6) Polybrominated diphenyls ether (PBDE)	Threshold	1000 ppm
7) di-2-Ethylhexyl phthalate (DEHP)	Threshold	1000 ppm
8) Butyl benzyl phthalate (BBP)	Threshold	1000 ppm
9) di-n-Butyl phthalate (DBP)	Threshold	1000 ppm
10) di-Isobutyl phthalate (DIBP)	Threshold	1000 ppm

* As for the packaging materials, the total amounts of Pb, Hg, Cd and Cr⁶⁺ is 100 ppm or lower, and the total amount of phthalates are 1000 ppm or lower.

* The materials and applications excluded in ELV Directive and RoHS Directive are excluded.

To: Product purchasing department

Prepared on: _____,
 Company name: _____
 Division: _____

[Form 4] List of ELV/RoHS 10 substance evidences

Approved by:	Checked by:	Prepared by:
Author's contact (TEL):		

Product No./name											
Composing elements											
Material name											
Report No.											
Purchasing method											
Supplier											
Target environmentally hazardous substances (measured value, 3σ is expressed in ppm)	Lead	Measured value									
		3σ									
		Measuring method									
	Mercury	Data source									
		Measured value									
		3σ									
	Cadmium	Measuring method									
		Data source									
		Measured value									
	Hexavalent chrome	3σ									
Measuring method											
Data source											
PBB	Measured value										
	3σ										
	Measuring method										
PBDE	Data source										
	Measured value										
	3σ										
DEHP	Measuring method										
	Data source										
	Measured value										
BBP	3σ										
	Measuring method										
	Data source										
DBP	Measured value										
	3σ										
	Measuring method										
DIBP	Data source										
	Measured value										
	3σ										
Measuring method											
Data source											
Acceptance (○×)											

Check before submission

- 1) Filled in all columns concerning all composing elements (parts, materials, sub-materials, process materials, and packing/package materials).
- 2) Filled the results of checking of all the composing elements in the column Acceptance.

○, ×

To: Main purchasing department

[Form 5] Declaration of containing of NTN-prohibited substances/observation-requisite substances

Date	
Company name	
Dept.	
Name	

[1] Information on containing of NTN-prohibited substances/observation-requisite substances
 (If no space is left for adding information, attach another sheet with further information described.)

	Information on contained substance			Part information			Content/part		Content/homogeneous material			
	NTN.No ※1	Substance	Content a (g)	NTN class	NTN part No.	NTN part name	Your part model No.	Part weight b (g)	Content % a/b (%)	Homogeneous material	Homogeneous material weight c (g)	Content % a/c (%)
sample	200_14	Di(2-ethylhexyl)phthalate (DEHP)	#####	F1	○○	△△	□□	1.000	0.2000	Rubber	0.5000	0.4000
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

※1 NTN No. of NTN Environmentally Hazardous Substances (ver.1)

Description solely by the NTN No. is acceptable for long substance names that are difficult to spell out in full.

* Fill up to four significant figures.

[2] Reason/cause for inclusion

[3] Changes scheduled in future

Planned switchover date

Date: _____

To: Main purchasing department

[Form 6] Green Procurement Standards Agreement and Company Information Registration Statement

1. Agreement to Green Procurement Standards

We understand the contents of the NTN Group Green Procurement Standards and Appendix–List of NTN Environmentally Hazardous Substances (ver.1), and agree to comply with the requests set out therein.

Company name: _____

Responsible person: _____ Stamp

2. Company information

(1) Information of delivered items (Check items used, contained or adhered.)

Resin Rubber Plating Solder Paint Adhesive Grease

(2) Company information

Item		Your company	Manufacturer (if you are a trading company)
Name of your company / business establishment			
Address			
Responsible person	Dept./title		
	Name		
	e-mail		
Contact person in charge	Dept./title		
	Name		
	TEL		
	FAX		
	e-mail		

* If your company is a trading company, register the responsible person or person in charge from the manufacturer as well. If your company deals products of more than one manufacturer, submit this form for each manufacturer, or create a separate list and attach to this form.

(However, if your company is providing the technology and/or quality service, provide your company name only.)

* If manufacturing is conducted in multiple locations in your company, submit this form for each business site, or create a separate list and attach to this form. (However, if you have a department which oversees multiple business sites, provide that department only.)