

DNP Group
Green Procurement Guidelines for
Chemical Substances
Ver.1.3

November 2021

Dai Nippon Printing Co., Ltd.

1. Introduction

Deeming the preservation of global environment and efficient use of resources to be a significant issue, DNP has established the DNP Group Environmental Policy and DNP Group Environmental Targets and performed a wide variety of activities. In purchasing, DNP stipulated in the CSR procurement criteria that “in order to form a sustainable society, we shall recognize relations with the environment in all business activities and reduce environmental burdens.” Regarding chemical substances, we instituted DNP Group Management Criteria of Chemical Substances in 2004 and have promoted green procurement in cooperation with our suppliers.

In the meantime, with the aim of reducing risks that chemical substances may exert on human health and environment, domestic as well as international regulations on chemical substances in products have been tightened to demand companies to grasp and manage chemical substances in materials and products across the entire supply chains in an adequate manner. In light of these circumstances, we have revised the DNP Group Management Criteria of Chemical Substances in order to beef up efforts for proper handling of chemical substances.

The Guidelines summarize the points that we need suppliers to comply with. Please understand the gist and give support and cooperation to our green procurement activities.

2. Objective

The Guidelines determine the management criteria on chemical substances in products handled by DNP and materials used in the manufacturing process of products (hereinafter referred to as “management criteria of chemical substances in products”) and the requirements that we need suppliers to comply with (hereinafter referred to as “requirements for the management of chemical substances in products”) in order to manage these substances in a proper manner with the aim of contributing to the preservation of global environment.

3. Scope of Application

The management criteria of chemical substances in products cover materials and/or products that are purchased by DNP.

3.1 Materials

- Materials which constitute products sold and/or distributed by DNP.
Examples: paper, plastics, metal, glass, ink, coating materials, adhesive, packaging materials etc.
- Components which constitute DNP Products sold and/or distributed by DNP.
Examples: electric and electronic parts, mechanical parts, printed-circuit board etc.
- Consumables used in the manufacturing process of DNP Products.
Examples: solvent, cleaning product, plate-making materials, lithographic plate materials, metal mold, etc.

3.2 Products

- DNP products (including sub-contracting) designed and/or manufactured and sold or distributed by DNP.
- DNP products which are purchased from a supplier outside of the DNP Group, and sold or distributed with the trademark of DNP.
(As for the above products, if there are other regulations such as laws and industry standards, we will separately consider management based on those standards.)

The requirements for the management of chemical substances in products shall be applied to all suppliers that deliver abovementioned materials and/or products to DNP.

4. Definition of Terms

- Chemical substance
A chemical element or compound that either exists in nature or is obtained through a manufacturing process.
Examples: lead oxide, nickel chloride, benzene, etc.
- Mixture
A mixture intentionally comprising two or more chemical substances.
The definition of the term “preparation” is the same as mixture.
- Article
An item of specific shape, appearance or design created during manufacture, which substantially determines functions in final use rather than functions provided by its chemical composition.
- Chemical product
Chemical substance and/or mixture, not an article.
- Inclusion of chemical substances
Inclusion of chemical substances means that chemical substances are detected in parts, materials and products as ingredients.
- Intentional inclusion of chemical substances
Intentional inclusion refers to inclusion of chemical substances in materials or products to maintain or improve specific function/performance or quality.
- Homogeneous material
A homogeneous material refers to a material that cannot be mechanically separated into different materials.
Examples of homogeneous materials:
compound polymer alloy, metal alloy, glass, single coated layer formed by print or coating. In case of multi-coated layer, homogeneous materials mean each layer constituting the multi-coated layer.

5. Requirements

5.1 Establishment of Management System for Chemical Substances in Products

To appropriately grasp and manage the information on chemical substances in products, it is important that all business entities involved in supply chains should construct and

operate an in-house management system so that information credibility would be enhanced from that standpoint, we request suppliers to construct and operate a management system for chemical substances in products in accordance with the JIS Z7201 “Management of chemical substances in products – Principles and guidelines”, and “Guidelines for the management of chemical substances in products” instituted by the Joint Article Management Promotion-consortium (JAMP).

Following is a list of requirements that should be fulfilled in the management of chemical substances in products.

5.1.1 Management of Chemical Substances in Products in General

- In accordance with the action items as follows, the organization shall establish, document, implement, sustain and continuously improve the management system of chemical substances in products.
- In case that the other management system such as the quality management system or the environment management system has already been established in the organization, the organization may optimize such an existing system to implement management.

5.1.2 Representation of the Management Policy of Chemical Substances in Products

- Top managers of the management of chemical substances in products shall represent implementation of the effectual management of chemical substances in products such as complying with relevant laws and regulations and developing the management system of chemical substances in products.
- It is important to confirm that policies approved by the top management of chemical substances in products are disseminated and understood by those concerned.
- It is important that the policies are maintained constantly.

5.1.3 Planning

5.1.3.1 Defining the management criteria of chemical substances in products

- The organization shall determine and document the management criteria of chemical substances in products in consideration of the customer requirements, relevant laws and regulations, industry criteria, and products and the type of business operation. The management criteria of chemical substances in products shall be disseminated and understood by those concerned.
- It is important to maintain and manage up-to-date information of laws and regulations and the industry criteria.
- It is important to define the scope of application for the management criteria of chemical substances in products. From a view of the organization, business operation, chemical substances, materials constituting products, manufacturing processes and products, the scope of application has to be defined to cover all the necessary areas.

5.1.3.2 Target and Implementation Plan

The organization shall set the target for management of chemical substances in products. The organization shall draw up, implement and sustain the implementation plan to achieve the target. The organization shall review the target and the implementation plan whenever needed.

5.1.3.3 Defining Responsibility and Authority

The organization shall determine responsibilities and authorities to implement management of chemical substances in products effectively.

5.1.3.4 Internal Communication

The organization shall establish a procedure for the internal communication and shall notify the policy, the management criteria of chemical substances in products, the target, the implementation plan, responsibilities and authorities to all related departments.

5.1.4 Operation and Management

5.1.4.1 Operation and Management in General

For the purpose of producing products which can fulfill the management criteria of chemical substances in products, management of chemical substances in products shall be implemented at the respective stage of design and development, purchasing, manufacturing and delivery.

5.1.4.2 Management of Chemical Substances in Products at Design and Development

For the purpose of producing products which can fulfill the management criteria of chemical substances in products, the organization shall define clearly and document the management criteria of chemical substances in products at the respective stage of purchasing, manufacturing and delivery.

5.1.4.3 Management of Chemical Substances in Products at Purchasing

5.1.4.3.1 Collection and Verification of Information of Chemical Substances in Products

- The organization shall present the management criteria of chemical substances in products for purchasing (hereinafter referred to as “the purchase management criteria”) to suppliers, and request suppliers for complying with the criteria.
- The organization shall verify if information of chemical substances in the purchased products satisfies the purchase management criteria and record the result accordingly.
- The organization shall complete collection and verification of the information of chemical substances in products in accordance with the purchase management criteria before start of manufacturing.

5.1.4.3.2 Verification of the Management Status of Chemical Substances in Products at Supplier

- When the organization selects the supplier, the organization shall verify and record the management status of chemical substances in products at the supplier.
- In case that the organization continues business with the supplier, for the purpose of fulfilling the management criteria of chemical substances in products, the organization shall verify and record the supplier’s management status of chemical substances in products again whenever necessary.
- The organization shall define the actions against the outcome of the supplier’s management status prior to verification.

5.1.4.3.3 Management of Chemical Substances in Products at Receiving

- The organization shall verify purchased products upon receiving if they fulfill the purchase management criteria of the organization and record accordingly.

- It is important to clearly define the method of verification at receiving in consideration of the information of chemical substances in products, and the supplier's management status.

5.1.4.4 Management of Chemical Substances in Products for the Manufacturing Process

5.1.4.4.1 Management of Chemical Substances in Products for the Manufacturing Process in General

The organization shall manage the manufacturing processes in accordance with the management criteria of chemical substances in products for manufacturing processes and record the result accordingly.

5.1.4.4.2 Prevention of Contamination by Incorrect Use or Admixture

The organization shall implement the preventive measures against contamination by incorrect use or admixture of managed chemical substances under the management criteria of chemical substances in products.

5.1.4.5 Management at Delivery

- Before the organization delivers products, the organization shall verify products if they satisfy the management criteria of chemical substances in products for delivery and record the result accordingly.
- At receiving or at the manufacturing process, the organization shall verify again to ensure that all predetermined check items are completely confirmed.
- The organization shall also manage to prevent contamination by any incorrect shipment or mixed-up in the product warehouse.

5.1.4.6 Verification of the Management Status of Chemical Substances in Products at Outsourcing

In case that the organization outsources some processes such as product design and development or manufacturing to another organization, the organization shall verify the management status of chemical substances in products at the outsourcing organization to ensure that the management criteria of chemical substances in products can be complied and shall record the result accordingly.

5.1.4.7 Traceability

The organization shall assure traceability of the information of chemical substances in products by appropriate manners in order to grasp, utilize, disclose and transfer the information of chemical substances in products swiftly.

5.1.4.8 Exchange of Information with the Customer

- The organization shall clearly define and implement the effective method of exchanging information with the customer for the following matters, and record details of such information exchange.
 - a) Laws, regulations and the industry criteria that are required by the customer to comply
 - b) Information of chemical substances in products
 - c) Information on the management of chemical substances in products
- In case that any change is to be made to the information of chemical substances in

products, the organization shall notify the customer prior to such a change.

5.1.4.9 Change Management

- The organization shall extract changeable elements which may affect managed chemical substances under the management criteria of chemical substances in products.
- When any change arises, before the actual change is taken place, the organization shall effectually confirm a change to be made to the information of chemical substances in products and verify if the management criteria of chemical substances in products can still be fulfilled.
- The organization shall document the procedures of change management and record the result of change.

5.1.4.10 Response to Occurrence of Nonconformity

- The organization shall develop and document the method of in-house contacts, the method of contacting suppliers, outsourcing organizations and customers as well as the temporary corrective actions, in order to correspond to any nonconformity arising relating to chemical substances in products.
- After the temporary measure is taken, the organization shall investigate and identify the cause, determine and implement the necessary countermeasures to prevent recurrence of nonconformity.
- The organization shall take the preventive measures to avoid any occurrence of nonconformity.
- The organization shall record the responses taken at nonconformity

5.1.5 Management of Human Resources, Documentation and Information

5.1.5.1 Education and Training

The organization shall develop the contents of each management and operation module that are necessary to train and educate for management of chemical substances in products. The organization shall identify works and personnel to be engaged in management of chemical substances in products, and conduct the necessary training and education, and record accordingly.

5.1.5.2 Management of Document and Record

The organization shall manage the documents including “the procedures of documentation” and the records as required in the action items of the Guidelines as well as the procedures and the records which are determined by the organization as necessary.

5.1.6 Evaluation and Improvement of Implementation Status

- The organization shall evaluate the management status of chemical substances in products periodically at a predetermined frequency.
- The organization shall implement corrective actions to matters which require correction.
- The organization shall record the result of evaluation and the corrective actions and report it to top managers of the management of chemical substances in products.
- The top management in chemical substances in products shall review the result of evaluation and the corrective actions.

5.2 Management Criteria of Chemical Substances in Products

- We determined substances that all departments of DNP shall grasp and manage in the Managed Substances List Specified by DNP. Please see Annexed table 1.
- Aside from these substances, each department of DNP may add other substances to the list in consideration of the type of business operation, etc.
- Chemical substances subject to management shall be classified as “substance prohibited to be included in purchased materials and products” or “substance included in materials and products the amount of which should be acknowledged by DNP” as follows, and grasped and managed accordingly.

a) Substance prohibited to be included in purchased materials and products

These are substances whose use in products is prohibited or restricted by domestic or international laws and regulations, and thus their inclusion in materials/products supplied to DNP (hereinafter referred to as “supplies”) must be prohibited. From the standpoint of quality control, we may request, as need arises, submission of written documents that assure non-inclusion of prohibited substances or inclusion of no more than threshold levels. In the case inclusion above the threshold levels are found, it shall be handled as a defect of supplies.

b) Substance included in materials and products the amount of which should be acknowledged by DNP

Although inclusion of these substances in supplies is not restricted, DNP considers that it needs to grasp the presence or absence of inclusion, contained amounts and contained parts in consideration of domestic and international laws and regulations as well as the industry criteria. In the case such a substance is included at the concentration level of more than 0.1wt% in a unit or in an arbitrarily divided unit of supplies, please grasp and report it to us.

- The threshold levels determined as management criteria shall be applied to the concentration levels calculated as follows:
- The concentration of chemical substances in supplies shall be calculated by homogenous materials for the substances regulated by the RoHS Directive and by a unit or an arbitrarily divided unit of supplies for other substances.

5.3 Reference

- You can check whether an individual substance is categorized as a substance subject to management using the following tool:
chemSHERPA-AI input support tool and external list.
You can obtain it from the following website:
<https://chemsherpa.net/chemSHERPA/tool/>
- If, however, a specific substance is found by the input support tool not to be a substance subject to management, please report it as a substance subject to management in the case that it is covered by relevant laws and regulations.

6. Operation

6.1 Evaluation based on the Guidelines

6.1.1 Management of Chemical Substances in Products

Following the directions of the order department, suppliers shall conduct self-evaluation on the development and implementation status of the management system for chemical substances in products, write down the result in “List of Action Items & Check Sheet” developed by the Joint Article Management Promotion-consortium (JAMP) and submit it to us.

6.1.2 Information on Chemical Substances Included in Supplies

Suppliers shall investigate the inclusion status of chemical substance subject to management in supplies before delivery. Please ask the order department what chemical substances are subject to management because other substances may be added to the list by each department in addition to the managed substances specified by DNP. In principle, suppliers shall report the investigation result using chemSHERPA-CI and/or chemSHERPA-AI format.

6.1.3 Evaluation

Based on the obtained result, the order department shall evaluate the conformance to requirements. In order to grasp suppliers’ management systems of chemical substances in products and the information on chemical substances in supplies more clearly, we may ask for submission of other necessary documents in addition to above data.

6.2 Communication to DNP

In the case supplies fulfill any of the items below, please make contact with the order department immediately.

- In the case non-conformity of supplies to the management criteria of chemical substances in products is found.
- In the case a change can occur in the information on chemical substances in products due to a shift in materials, a production process or production facilities of supplies.
- In case any inclusion is newly found for already reported chemical substances or a change occurs in reported contents.

6.3 Revision of the Guidelines

The Guidelines may be revised due to amendment of domestic or international laws and regulations or a trend in the industry.

7. Supplementary provision

DNP Group Management Criteria of Chemical Substances was revised into the Guidelines (November 2021).

【Annexed table 1】 Managed Substances List Specified by DNP

- a. substance prohibited to be included in purchased materials and products.
 b. substance included in materials and products the amount of which should be acknowledged by DNP Group

	Substances/Substance Groups	Standards for Suppliers			Declarable Substances	
		Application	Classification	Criteria	Target Management Standards	Typical Substances/Substance Groups
1	Polychlorinated biphenyls (PCBs)	Chemical product and/or article	a	Intentional use prohibited	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	PCBs
2	Polychlorinated naphthalenes (with more than 2 chlorine atoms)	Chemical product and/or article	a	Intentional use prohibited	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	Polychlorinated Naphthalenes (PCNs)
3	Polybrominated biphenyls (PBBs)	Chemical product and/or article	a	Intentional use prohibited, and concentration must be less than 1000ppm	RoHS Directive	PBBs
4	Polybrominated diphenyl ethers (PBDEs)	Chemical product and/or article	a	Intentional use prohibited, and concentration must be less than 1000ppm	RoHS Directive	PBDEs
5	Short-chain chlorinated paraffins (C10 - C13)	Chemical product and/or article	a	Intentional use prohibited	REACH Regulation (substances of very high concern in Annex XIV)	Short-chained chlorinated paraffins
6	Bis(tri-n-butyltin)oxide, Bis(tributyltin)oxide	Chemical product and/or article	a	Intentional use prohibited, and concentration must be less than 1000ppm (metal converted value)	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	
7	TBTs and TPTs (organostannic compounds)	Chemical product and/or article	a	Intentional use prohibited, and concentration must be less than 1000ppm (metal converted value)	REACH Regulation (Restricted Substances in Annex XVII)	TBTs and TPTs(organostannic)
8	Beryllium (Be) and Beryllium compounds *1	Chemical product and/or article	a	Intentional use prohibited	GADSL IEC 62474	Beryllium and its compounds
9	Ozone-depleting substances (limited to below) ·CFC (Chlorofluorocarbons) ·Halon ·Carbon tetrachloride [56-23-5] ·1,1,1-trichloroethane [71-55-6] ·Hydro-Bromo-Fluoro-Carbones ·Methyl bromide [74-83-9]	Chemical product and/or article	a	Intentional use prohibited	GADSL IEC 62474	Ozone Depleting Substances
10	Asbestos	Chemical product and/or article	a	Intentional use prohibited	TSCA GADSL IEC 62474	Asbestos
11	Perfluorooctane sulfonate and its salts	Chemical product and/or article	a	Intentional use prohibited	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	PFOSs
12	2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol	Chemical product and/or article	a	Intentional use prohibited	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	
13	Cadmium (Cd) and Cadmium compounds *2	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 100ppm (metal converted value)	RoHS Directive	Cadmium and its compounds
14	Hexavalent chromium (Cr6+) and Hexavalent chromium compounds	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 1000ppm (metal converted value)	RoHS Directive	Chromium(VI)
15	Mercury (Hg) and Mercury compounds	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 1000ppm (metal converted value)	RoHS Directive	Mercury and its compounds
16	Lead (Pb) and Lead compounds *2	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 1000ppm (metal converted value)	RoHS Directive	Lead and its compounds
17	Vinyl chloride monomer for packaging materials for food product.	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 1ppm by materials test based on the Food Sanitation Law	REACH Regulation (Restricted Substances in Annex XVII)	Vinyl chloride
18	Azo dye and Azo pigment forming specified amines *3	Chemical product Article	b a	— Intentional use prohibited	REACH Regulation (Restricted Substances in Annex XVII)	Azodyes which, by reductive cleavage of one or more azo groups, may release one or more of the specific aromatic amines [group]
19	Hexabromocyclododecane	Chemical product Article	b a	— Intentional use prohibited	REACH Regulation (Candidate List of Substances of Very High Concern (SVHC) for authorization)	Brominated flame retardants
20	Dibutyltin compounds	Chemical product Article	b a	— Concentration must be less than 1000ppm (metal converted value)	REACH Regulation (Restricted Substances in Annex XVII)	DBTs
21	Diocetyl tin compounds	Chemical product Article	b a	— Concentration must be less than 1000ppm (metal converted value)	REACH Regulation (Restricted Substances in Annex XVII)	DOTs
22	Dimethyl fumarate	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 0.1ppm	REACH Regulation (Restricted Substances in Annex XVII)	DMF
23	Phthalate esters [1] *4	Chemical product Article	b a	— Intentional use prohibited, and concentration must be less than 0.1ppm Not subject to RoHS Directive: Classification C	REACH Regulation [Annex XVII] REACH Regulation [SVHC] REACH Regulation [Annex XVII] REACH Regulation [SVHC] RoHS Directive	Phthalate esters
24	Phthalate esters [2] *4	Chemical product and/or article	b	—	RoHS Directive REACH Regulation (Restricted Substances in Annex XVII)	Certain Phthalates
25	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Chemical product and/or article	b	—	IEC 62474	Brominated flame retardants
26	Nickel (Ni) and Nickel compounds *5	Chemical product and/or article	b	—	REACH Regulation (Restricted Substances in Annex XVII)	Nickel and its compounds
27	Arsenic (As) and Arsenic compounds	Chemical product and/or article	b	—	REACH Regulation (Restricted Substances in Annex XVII)	Arsenic and its compounds
28	Polychlorinated terphenyls(PCTs); Terphenyl, chlorinated	Chemical product and/or article	b	—	REACH Regulation (Restricted Substances in Annex XVII)	PCTs
29	Perfluorooctanoic acid and its salts	Chemical product and/or article	a	Intentional use prohibited	Chemical Substances Control Law/JN (Class I Specified Chemical Substances)	PFOAs

*1 substances which fulfill the following description should be classified as the "substance included in DNP Product the amount of which should be acknowledged by DNP Group":
 If the substances are contained in electric/electronic equipment, a part of such equipment or a contact point of an accessory and plating is done so that people will not touch beryllium or beryllium compounds directly.

*2 except for the RoHS2 Annex III and Annex IV

*3 limited to azo dyes and pigments that can produce more than 30ppm of aromatic amines from a product or the dyed part of a product according to the testing method specified by Annex XVII of REACH Regulation and is applied to a product containing textile, fabric or leather that can touch the human skin or oral cavity directly for long hours.

*4 limited to substances shown in Annexed table 3

*5 limited to products expected to touch the human skin directly for long hours

【Annexed table 2】 The List of Aromatic Amines

Substances	CAS No.
4-aminobiphenyl	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-Naphthylamine and its salts	91-59-8
4-o-tolylazo-o-toluidine; 4-amino-2',3'-dimethylazobenzene	97-56-3
5-Nitro-o-toluidine	99-55-8
4-chloroaniline	106-47-8
2,4-diaminoanisole; 4-methoxy-m-phenylenediamine	615-05-4
4,4'-diaminodiphenylmethane(MDA); 4,4'-methylenedianiline	101-77-9
3,3'-dichlorobenzidine; 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
4,4'-bi-o-toluidine; 3,3'-Dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine; p-cresidine; p-Cresidine	120-71-8
2,2'-dichloro-4,4'-methylenedianiline; 4,4'-methylene bis(2-chloroaniline); 4,4'-Methylene-bis-(2-chloroaniline); 2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4
4,4'-oxydianiline and its salts; p-aminophenyl ether; 4,4'-Oxydianiline	101-80-4
4,4'-thiodianiline and its salts; 4,4'-Thiodianiline	139-65-1
O-toluidine; 2-aminotoluene; o-toluidine	95-53-4
4-methyl-m-phenylenediamine; 2,4-toluenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
2-methoxyaniline; o-anisidine	90-04-0
4-aminoazobenzene; 4-phenylazoaniline	60-09-3

【Annexed table 3】 The List of Phthalate Esters

Substances	CAS No.		
Diisobutyl phthalate	84-69-5	【1】	Subject of RoHS Directive
Benzyl butan-1-yl phthalate	85-68-7	【1】	Subject of RoHS Directive
Bis(2-ethylhexan-1-yl) phthalate	117-81-7	【1】	Subject of RoHS Directive
Dibutan-1-yl phthalate	84-74-2	【1】	Subject of RoHS Directive
Bis(2-methoxyethyl) phthalate	117-82-8	【2】	
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	【2】	
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	【2】	
Bis(n-octyl) phthalate	117-84-0	【2】	
Diisononyl phthalate	28553-12-0	【2】	
Phthalic acid, di-C8-10 branched alkyl esters C9 rich	68515-48-0		
Di-"isodecyl" phthalate	26761-40-0	【2】	
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1		