

Green Purchasing Guidelines

(For suppliers)

October 17, 2006

Toho Titanium Company Limited

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Toho Titanium Company Limited Green Purchasing Guidelines

1. Introduction

The Toho Titanium Group, a comprehensive titanium manufacturer, is engaged primarily in titanium business, and also conducts electro-ceramic materials business and olefin polymerization catalyst business, making use of technology and intermediate products from the titanium refining process.

Fully recognizing the effects these business activities have on the environment, our Group is trying to reduce environmental risks as well as to “use resources effectively” and “reduce environmental loads,” including improvement of yield and extraction rates, improvement of quality, process reduction, recycling and energy conservation, at any stage of the business activities, with a basic environmental policy that we will contribute to global environmental conservation through “reasonable and effective use of resources and technology.”

To this end, our Group has decided to promote green purchasing and established the “Green Purchasing Guidelines,” based on recognition that it is also essential to reduce environmental loads in purchasing materials and equipment necessary for our business activities.

These Guidelines present “essential requirements (minimum requirement level)” to be observed at the least and “desired requirements (desired level)” to be taken into account. If the “essential requirements” are not met, we may have to discontinue our business relationship. The “desired requirements” will be used for future reference in purchasing.

If standards other than those set forth in these Guidelines are required due to specification requirements of materials and equipment, we will specify such standards in purchase specifications and other documents, which will be determined separately.

It should be noted that the green purchasing standards are subject to subsequent changes in laws and regulations, and social trends.

[Green purchasing policy]

We will contribute to “creation of a sound material-cycle society,” “prevention of global warming” and “promotion of 3Rs” through efforts to purchase green.

All materials and equipment to be purchased will be subject to green purchasing. If the functions, prices and delivery periods of materials and equipment to be purchased are equivalent, we will evaluate the degree of environmental load reduction based on the “essential requirements” and “desired requirements” and purchase those with less environmental loads.

* 3Rs = Recycle, Reduce and Reuse

2. Scope of Application

These Guidelines cover the following materials and equipment at present.

1) Facility materials (manufacturing facilities)

Facilities related to titanium manufacture, electronic materials and functional materials, and olefin polymerization catalysts

2) Operational materials

Materials other than “raw materials used for manufacturing titanium-related products, products related to electro-ceramic materials and functional materials and products related to olefin polymerization catalysts,” and facility maintenance materials

3) Office supplies

All materials used at the headquarters, branches, offices and other places of business.

3. Requirements to be Considered in Purchasing

1) Essential Requirements

We will purchase from suppliers or materials and equipment that meet the following requirements. Suppliers are requested to submit us a confirmation that they meet the essential requirements.

(1) Essential requirements for suppliers

Our major consideration when determining which materials and equipment to purchase is the degree to which the materials and

equipment in question reduce environmental loads and whether the companies manufacturing and selling the materials and equipment are taking an active stance toward environmental conservation. We will examine the policy of the companies toward environmental conservation and purchase materials and equipment from suppliers that meet the following conditions.

a) Creation of an environmental management system

Factories and offices which develop, manufacture and sell materials and equipment are required to create an environmental management system.

Suppliers can implement the ISO-14001 environmental management system or create their own environmental management system, which must include the following items:

- Establish environmental policies.
- Appoint an environmental management representative and set up an organizational structure for environmental management.
- Identify and comply with environmental laws and regulations.
- Establish and carry out environmental objects, targets and plans.
- Conduct environmental education and training for employees.
- Periodically check the status of legal compliance and environmental activities.

b) Nonuse of substances banned from use in the manufacturing process

In the manufacturing process, suppliers must not use any banned substances separately specified by our Group.

c) Cooperation in a survey of contained chemical substances

For a survey of chemical substances contained in materials and equipment, suppliers are required to submit us a survey report of chemical substance contents (in the JGPSSI format).

(2) Essential requirements for materials and equipment

Materials and equipment to be purchased are required to have low environmental loads.

To avoid environmental contamination and harm to human health, measures must be taken to prevent hazardous substances from being released when materials and equipment are used, scrapped or disposed of. By ensuring that materials and equipment do not contain any substance that may cause damage to the environment or human health, we intend to design greener products and conduct more appropriate disposal activities.

Thus, we will only purchase materials and equipment that do not contain any banned substances separately specified by us.

“Contain” as used in these Guidelines means “intentionally containing banned substances.” Although impurities, which are unavoidably contained, are not considered as contained banned substances, the contents must not exceed the threshold level (*) of hazardous substances indicated in the “Guide for Banned Environment Impact Substances.”

* Threshold level: the maximum level at which substances do not start to develop toxicity

2) Desired Requirements

We ask suppliers to understand the commitment of our Group to “creation of a sound material-cycle society,” “prevention of global warming” and “promotion of 3Rs” and to promote the following efforts. Suppliers are requested to give us periodical report of their promotion status.

(1) Implementation of environmental assessment of materials and equipment

Supplies are requested to perform environmental assessment of materials and equipment when designing the materials and equipment so as to reduce the environmental loads of the materials and equipment at the design stage.

Environmental assessment of materials and equipment is a preliminary assessment that takes environmental factors into consideration at the development stage based on environmental design concepts such as global warming, resource recycling and elimination of environmental impact substances so as to provide eco-friendly materials and equipment that use less resources or energy to the market.

(2) Commitment to global environmental conservation

Suppliers are requested to make efforts to achieve the following:

Reduction of substances that may cause global warming, reduction in waste generation, management of chemical substances, reduction in resource consumption, reduction in the environmental loads of wrapping and packaging materials, and implementation of environmental assessment (control of air pollution, water pollution, ground contamination, noise, vibration, etc.)

(3) Green purchasing

Suppliers are requested to establish green purchasing standards and apply such standards in purchasing parts and components of materials and equipment.

(4) Public disclosure of information

Suppliers are requested to make active public disclosure of environmental information of materials and equipment and their commitment and achievements concerning environmental conservation.

4. Application of Green Purchasing

1) Supplier-by-supplier survey

- (1) Each supplier is requested to provide information on its management stance towards environmental conservation and materials and equipment.
- (2) We will examine the state of the environmental management system and other related matters.
- (3) We will check whether or not banned substances are used.

2) Product-by-product survey

We will survey the contents of banned substances.

3) Notification of changes

In case of any change in answers to a survey form, suppliers are requested to notify us of such change.

4) Any and all information received from suppliers will be treated with the highest confidentiality.

Supplementary provisions:

A draft for the establishment and revision or abolition of these Guidelines will be prepared by the Environmental Safety Secretariat.

Established: October 1, 2006

Attachment

Guide for Banned Environmental Impact Substances

1. Purpose of this Guide

The purpose of this Guide is to clarify substances that must not be contained in the manufacturing process and materials and equipment, make our Group and suppliers know the substances, and improve the environmental quality of the products of our Group.

2. Banned Substances and Threshold Levels

1) Substances banned from use in products

The following substances must not be used intentionally and, even if they are impurities, must not exceed the threshold level (*).

* Threshold level: the maximum level at which substances do not start to develop toxicity

(1) Heavy metals

Cadmium and its compounds	wrapping materials, plastic, ink and paint: less than 5 ppm raw metals containing zinc: less than 75 ppm raw metals not containing zinc: less than 20 ppm
Lead and its compounds	wrapping materials, plastic, ink and paint: less than 100 ppm impurities in metal: less than 100 ppm
Chromium VI compounds	wrapping materials, plastic, ink and paint: less than 100 ppm impurities in metal: less than 100 ppm
Mercury and its compounds	wrapping materials, plastic, ink and paint: less than 100 ppm impurities in metal: less than 100 ppm

As for packaging materials, however, the total contents of the above four substances must not exceed 100 ppm.

(2) Chlorinated organic compounds

- Polychlorinated biphenyls (PCB): less than 50 ppm
- Polychlorinated naphthalenes (PCN) (with 3 or more chlorine atoms)
- Polychlorinated terphenyls (PCT): less than 50 ppm
- Chlorinated paraffins (CP) (with carbon length of 10-13)
- Mirex

(3) Brominated organic compounds

- Polybromobiphenyls: less than 1000 ppm
- Polybromodiphenylethers: less than 1000 ppm

(4) Organotin compounds

- Tributyltin compounds: less than 1000 ppm
- Triphenyltin compounds: less than 1000 ppm

(5) Asbestos

(6) Formaldehyde: less than 0.1 ppm

2) Substances banned from use in the manufacturing process

(1) Ozone depleting substances

- CFCs, Halons, HBFCs, HCFCs, methyl bromide and carbon tetrachloride

(11,12,13,111,112,113,114,115,211,212,213,214,215,216,217)

(CFC-11 = trichlorofluoromethane CFC-13)

- HBFC

(HBFC-2281 = bromodifluoromethane CHF₂Br)

- Carbon tetrachloride

- Halon

(1211,1301,2402)

(Halon-1201 = bromochlorodifluoromethane)

- 1,1,1-trichloroethane

(2) Chlorinated organic solvents

- 1,1,2-trichloroethane
- 1,2-dichloroethane
- 1,1-dichloroethylene
- 1,2-dichloroethylene
- Dichloromethane (methylene chloride)
- Chloroform
- Trichloroethylene
- Tetrachloroethylene

3. Application of this Guide

- 1) This Guide, which was established in order to prevent the environmental impact of products, does not cover all substances banned from use by laws and regulations. If necessary, it will be reviewed from the viewpoint of global environmental conservation.
- 2) In principle, this Guide must be observed at any time. However, as for specific applications such as substances, applications and applied sites that are not regulated by laws and regulations or have no alternative technical solution, if this Guide cannot be observed, it is permitted to follow the judgment of the head of the relevant office.

Established: October 1, 2006