



**Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis**  
**DIRETORIA DE QUALIDADE AMBIENTAL**

**Informação Técnica nº 4/2022-Diqua**

Número do Processo: 02001.030854/2022-50

Interessado: Ministério das Relações Exteriores  
Divisão de Assuntos Internacionais  
DIRETORIA DE QUALIDADE AMBIENTAL

*Brasília/DF, na data da assinatura digital.*

A presente Informação Técnica é a tradução para a língua inglesa, feita pela analista ambiental Ana Cristina Soares Linhares, do Parecer Técnico Sei n. 14212181.

The present document is the translation to English of the technical report 14212181, produced by the analyst Ana Cristina Soares Linhares.

Initially, it is important to clarify that the expression "mercury waste threshold" should be simply understood, in Portuguese, as "limites para resíduos de mercúrio", whose concept seeks to meet the definitions established by the Basel Convention, in the case of the object of attention of Art. 11 of the Minamata Convention on Mercury, which we make available in its full content below:

Article 11 – Mercury waste

1. The relevant definitions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal shall apply to wastes covered under this Convention for Parties to the Basel Convention. Parties to this Convention that are not Parties to the Basel Convention shall use those definitions as guidance as applied to wastes covered under this Convention.
2. For the purposes of this Convention, mercury wastes means substances or objects:
  - (a) Consisting of mercury or mercury compounds;
  - (b) Containing mercury or mercury compounds; or
  - (c) Contaminated with mercury or mercury compounds, in a quantity above the relevant thresholds defined by the Conference of the Parties, in collaboration with the relevant bodies of the Basel Convention in a harmonized manner, that are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law or this Convention. This definition excludes overburden, waste rock and tailings from mining, except from primary mercury mining, unless they contain mercury or mercury compounds above thresholds defined by the Conference of the Parties.
3. Each Party shall take appropriate measures so that mercury waste is:
  - (a) Managed in an environmentally sound manner, taking into account the guidelines developed under the Basel Convention and in accordance with requirements that the Conference of the Parties

shall adopt in na additional annex in accordance with Article 27. In developing requirements, the Conference of the Parties shall take into account Parties' waste management regulations and programmes;

(b) Only recovered, recycled, reclaimed or directly re-used for a use allowed to a Party under this Convention or for environmentally sound disposal pursuant to paragraph 3 (a);

(c) For Parties to the Basel Convention, not transported across international boundaries except for the purpose of environmentally sound disposal in conformity with this Article and with that Convention. In circumstances where the Basel Convention does not apply to transport across international boundaries, a Party shall allow such transport only after taking into account relevant international rules, standards, and guidelines.

4. The Conference of the Parties shall seek to cooperate closely with the relevant bodies of the Basel Convention in the review and update, as appropriate, of the guidelines referred to in paragraph 3 (a).

5. Parties are encouraged to cooperate with each other and with relevant intergovernmental organizations and other entities, as appropriate, to develop and maintain global, regional and national capacity for the management of mercury wastes in an environmentally sound manner.

Based on the information provided in the text above of the mentioned article, it is important to emphasize that Brazil, until the present moment, does not have a specific inventory on waste contaminated with mercury, as well as an estimate on the quantity generated or existing.

However, through Law No. 12,305, of August 2, 2010, which instituted the National Solid Waste Policy, Brazil complies with the definitions contained in that law, of which we can highlight:

Article 3: For the purposes of this law, it is understood that:

(...)

VII - **environmentally appropriate final destination**: disposal of waste that includes reuse, recycling, composting, recovery and energy use or other destinations allowed by Organs competent bodies of Sisnama1, SNVS2 and Suasa3, including final disposal, observing specific operational standards in order to avoid damage or risks to public health and safety and to minimize adverse environmental impacts;

VIII - **environmentally adequate final disposal**: orderly distribution of waste in landfills, observing specific operational norms in order to avoid damage or risks to public health and safety and to minimize adverse environmental impacts;

(...)

XII - **reverse logistics**: economic and social development instrument characterized by a set of actions, procedures and means designed to enable the collection and return of solid waste to the business sector, for reuse, in its cycle or in other production cycles, or another environmentally appropriate final destination;

(...)

XIV - **recycling**: process of transforming solid waste that involves altering its physical, physical-chemical or biological properties, with a purpose to transforming it into inputs or new products, subject to the conditions and standards established by Organs competent bodies of Sisnama and, if applicable, fit, from SNVS and Suasa;

XV - **waste**: solid waste that, after exhausting all treatment and recovery possibilities through available and economically viable technological processes, does not present any possibility other than environmentally appropriate final disposal;

XVI - **solid waste**: material, substance, object or good discarded resulting from human activities in society, whose final destination is carried out, is proposed to be carried out or is obliged to proceed, in the solid or semi-solid state, as well as gases contained in containers and liquids whose particularities make it unviable to be released into the public sewage system or into water bodies, or require technically or economically unfeasible solutions for this in view of the best available technology;

The Conama Resolution 452, of 7/2/2012, which provides for waste import control procedures, in accordance with the rules adopted by the Basel Convention on the Control of Cross-Border

Movements of Hazardous Waste and its Deposit, provides the definition of hazardous waste, namely:

Article 2. For the purposes of this Resolution, the following definitions will be adopted:

I - Hazardous Waste - Class I: those that fall into any category contained in Annex I, unless they do not have any of the characteristics described in Annex III, as well as the waste listed in Annexes II and IV; It should be noted, therefore, that the presence of mercury in a waste fits the classification of hazardous waste and is defined in Annex I of this Resolution (like the same Annex I of the Basel Convention) as item Y29 Mercury; mercury compounds.

Therefore, it should be noted that the presence of mercury in a waste fits into the classification of hazardous waste and is defined in the Annex of that Resolution (like the same Annex I of the Basel Convention) as item *Y29 Mercury; mercury compounds*.

The Ibama Normative Instruction No. 12, of 07/16/2013, which provides for the regulation of waste import control procedures dealt with in Conama4 Resolution No. 452/12, in line with the Basel Convention, contains in its content an important parameter for classifying types of waste:

Article 1 - Regulate the waste import control procedures dealt with in Conama Resolution No. 452/2012, in line with the Basel Convention.

Single paragraph. For the purposes of this standard, the solid waste classification methodology described in the ABNT NBR 10004:2004 standard will be adopted.

Article 2 - For the purposes of this Normative Instruction, the following definitions will be adopted: I - Hazardous Waste - Class I: those that fall into any category contained in Annex I, unless they do not have any of the characteristics described in Annex III, as well as the waste listed in Annex IV.

Thus, it should be noted that the current basis that guides the determination of whether a waste is hazardous or does not comply with the parameters contained in Technical Standard NBR 10004:2004 of the Brazilian Association of Technical Standards - ABNT, which in its Annex C defines the substances that confer dangerousness to waste, with mercury and its compounds listed in this annex. Annex E brings the definition of toxic substances and also lists mercury, Annex F - Concentration brings the maximum limit of 0.1 mg/L in the extract obtained in the leaching test and, finally, Annex G - Standards for the test of solubilization defines the maximum limit of 0.001 mg/L in the obtained extract.

Still on the issue of mercury residue limits, we recall that during the Conference of the Parties, the discussion of mercury limits took place on the proposal of a single value of 25 ppm for the definition of paragraph c) of Article 11 - Mercury Waste, of the text of the Convention, which says: "2. For the purposes of this Convention, mercury waste means substances or objects:

"2. For the purposes of this Convention, mercury wastes means substances or objects:

(...)

(c) Contaminated with mercury or mercury compounds."

It is important to mention that in the Brazilian national legislation, the management of mercury waste is not based only on a single predetermined limit. The establishment of limits for the management of mercury residues must be based on the environmentally adequate destination that is intended to be given to the residue. Examples of this can be found in the following CONAMA Resolutions:

- N°. 316, of 2002: that it does not exceed 28 mg/Nm<sup>3</sup> of gaseous emissions;
- N°. 358, of 2005: Group B waste, paragraph b), which contain or are contaminated with heavy metals, including mercury: final disposal in hazardous waste landfill - Class I (Category D5 of Annex IV-A of the Basel Convention);
- N° 420, 2009: presence in soils: agricultural soil: 12 mg/kg; soil from residential areas: 36 mg/kg; industrial area soil: 70 mg/kg.

- N° 498, of 2020: possibility of use as biosolids: Biosolid Class 1: 17 mg/kg Biosolid Class 2: 57 mg/kg
- No. 499, of 2020: 0.05 mg/Nm<sup>3</sup> for gaseous emissions in clinker kilns.

Based on this scope, limits must be determined for each type of destination intended for mercury-contaminated waste. Such discussions may take place in the intersectional discussions of the technical group of experts and representatives of other country parties.

We also emphasize that the waste regulation of the Minamata Convention was based on the pillars of (a) environmentally sound management and disposal based on the provisions of the Basel Convention and on parameters to be set in an additional annex to be developed in the future by the Conference of the Parties ; (b) recovery, recycling or reuse only for uses permitted by the Convention or environmentally sound disposition; (c) prohibition for Parties that are also signatories of the Basel Convention to transboundary transport of mercury waste, except for the purpose of environmentally sound final disposal.

In addition, it is relevant to confirm that Brazil is a signatory of the Basel Convention and this has already been duly incorporated by Brazilian legislation, enacted as it was by Decree nº 875/1993 and having the amendment to its Annex I and the adoption of Annexes VIII and IX enacted by Decree No. 4,581/2003.

Respectfully,

**MARIANA MIDORI NAKASHIMA**

Coordenadora de Controle de Resíduos e Emissões



Documento assinado eletronicamente por **MARIANA MIDORI NAKASHIMA, Coordenadora**, em 07/12/2022, às 11:17, conforme horário oficial de Brasília, com fundamento no art. 6º, § 1º, do [Decreto nº 8.539, de 8 de outubro de 2015](#).



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