

Stainless Steel Seamless Tubes and Pipes



Functional unit

1 t

System boundary

final products intermediate products

Production Stage

(Raw material supply, Transport, Manufacturing)

Main specifications of the product

Production sites : Kansai Works (Wakayama, Amagasaki)

Kyushu Works (Yawata Hikari)

Main standards :

Austenitic/duplex/martensitic/ferritic
stainless steel pipes

Sizes : outside diameter : 6.0mm~406.4mm

thicknes : 1.2mm~45.0mm

Company Information

NIPPON STEEL CORPORATION

Specialty Tubular Products Marketing Dept.

Energy Tubular Products Marketing Div.

Pipe and Tube Unit

<https://www.nipponsteel.com>

Registration#

JR-BO-24008E-A

PCR number

PA-187000-BO-03

PCR name

Stainless steel products

Publication date

3/10/2025

Verification date

2/19/2025

Verification method

Product-by-product

Verification#

JV-BO-24008

Expiration date

2/18/2030

PCR review was conducted by:

Approval date

12/4/2023

PCR review

Ken Yamagishi

panel chair

Sustainable Management Promotion Organization

Third party verifier*

Kazuo Naito

Independent verification of data & declaration in accordance with ISO14025 and ISO21930

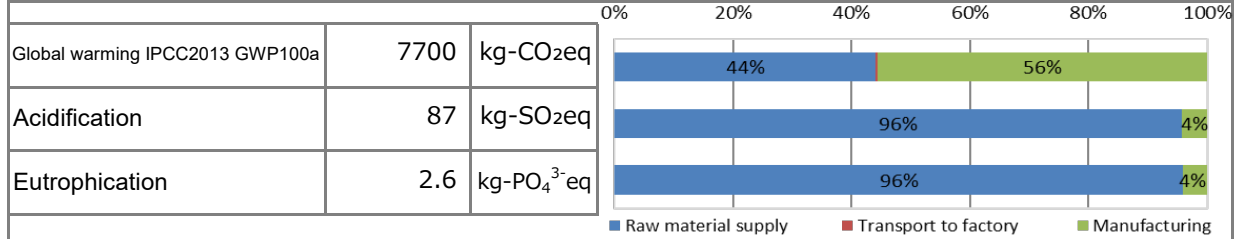
internal

external

*Auditor's name is stated if system certification has been performed.

Registration number : JR-BO-24008E-A

1. Results of life cycle impact assessment (LCIA)



Be sure to refer to “6-1. Supplementary environmental information” for Scope 3 and carbon footprint calculations.

Parameter	stage	Unit	Total	Raw material supply	Transport to factory	Manufacturing
Global warming IPCC2013 GWP100a		kg-CO eq	7.7E+03	3.4E+03	3.0E+01	4.3E+03
Ozone layer destruction		kg-CFC-11eq	6.6E-06	1.0E-06	2.5E-10	5.6E-06
Acidification		kg-SO eq	8.7E+01	8.3E+01	1.0E-01	3.6E+00
Photochemical ozone		kg-C H eq	4.2E-01	3.6E-01	1.9E-04	6.5E-02
Eutrophication		kg-PO ³⁻ eq	2.6E+00	2.5E+00	2.1E-13	1.0E-01

2. Life cycle inventory analysis (LCI)

Parameter	Value	Unit
Non-renewable material resources	3.1E+02	kg
Non-renewable energy resources	1.2E+05	MJ
Renewable material resources	6.4E+02	kg
Renewable primary energy	6.2E+03	MJ
Consumption of freshwater	2.0E+01	m ³

3. Material composition

Material	Value	Unit
C	0.15	%
Si	2.00	%
Mn	2.50	%
P	0.20	%
S	0.15	%
Ni	≤23.0	%
Cr	≤27.0	%
Mo	7.00	%

4. Waste to disposal

Parameter	Value	Unit
Hazardous waste	0.0E+00	kg
Non-hazardous waste	6.9E+01	kg

*Data derived from LCA and not assigned to the impact categories of LCIA

5. Additional explanation

1. Scenarios of transport to site follow the PCR. For the inter-factory transportation for intermediate products, distances were measured using mapping software.
2. Each item in table 3 is the maximum value of all product standards covered by this EPD.
3. Primary data collected in 2022. The source of the unit power consumption is the average of 10 electric power suppliers of Japan in 2014.
4. For metallurgical coal and alloys, the inventory data include transport, so the transport of these items is not counted.



6-1. Supplementary environmental information

Production site is certified to ISO 14001.

Note on Global warming IPCC2013 GWP100a: When purchasers of this product calculate GHG emissions under GHG Protocol Scope 3, Category 1 for their organization, or when calculating the carbon footprint of products manufactured using this product, they must check the following URL:

<https://www.nipponsteel.com/en/product/cfp/certificate.html>

(The content of the above URL is not subject to EPD verification.)

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
Manganese [Mn]	7439-96-5	Industrial Safety and Health Act
Nickel [Ni]	7440-02-0	Industrial Safety and Health Act

7. Assumptions of secondary data used

The IDEA2.1.3 data is used.

8. Remarks

The steel grades listed on the previous page are also applicable to machine structural use.

1 April 2026; Additional explanatory notes added to "6-1. Supplementary environmental information".

- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.
(Reference URL : <https://ecoleaf-label.jp/regulation/>)