



Stainless Steel Sheet (SUS430)



Functional unit

1 t

System boundary

final products intermediate products

Production Stage

(Raw material supply, Transport, Manufacturing)

Main specifications of the product

Production sites :

Yamaguchi Works, East Nippon Works

Main standards :

JIS(Japanese Industrial Standards)

See Table 8.Remarks for details

Type : Sheet, Strip

Main sizes(unit:mm, t:thickness, φ:diameter) :

t=0.1~9.0

Company Information

NIPPON STEEL CORPORATION

Stainless Steel Unit Stainless Steel Technology Div.

<https://www.nipponsteel.com/>

Registration#	JR-BO-24009E-A
PCR number	PA-187000-BO-03
PCR name	Stainless steel products
Publication date	March 19, 2025
Verification date	March 10, 2025
Verification method	Product-by-product
Verification#	JV-BO-24009
Expiration date	March 9, 2030

PCR review was conducted by:

Approval date	February 4, 2023
PCR review panel chair	Ken Yamagishi Sustainable Management Promotion Organization

Third party verifier*

Kengo Minamiyama

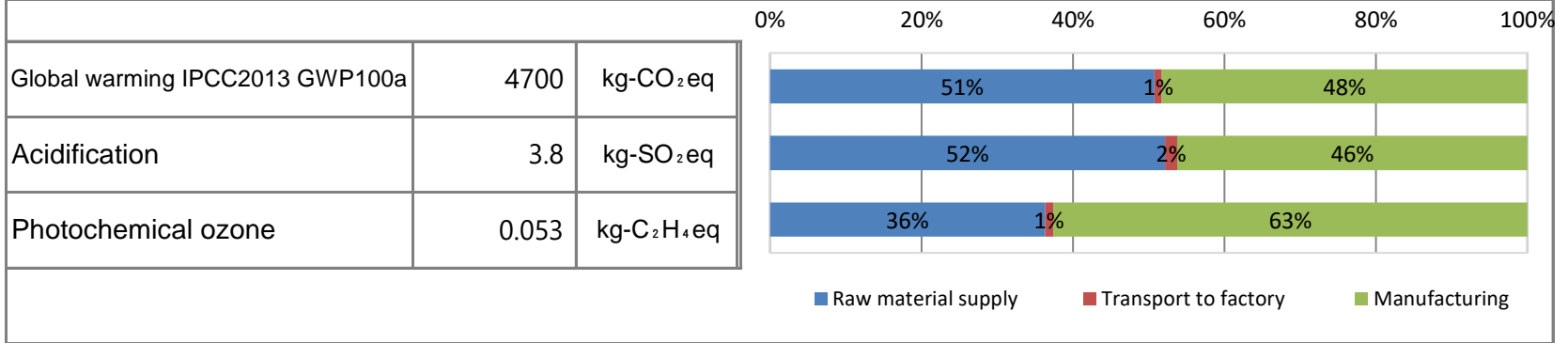
Independent verification of data & declaration in accordance with ISO14025 and ISO21930

internal external

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

Registration number : JR-BO-24009E-A

1. Results of life cycle impact assessment (LCIA)



Parameter	stage	Unit	Total	Raw material supply	Transport to factory	Manufacturing
Global warming IPCC2013 GWP100a		kg-CO ₂ eq	4.7E+03	2.4E+03	4.6E+01	2.3E+03
Ozone layer destruction		kg-CFC-11eq	5.2E-05	3.3E-07	3.2E-10	5.2E-05
Acidification		kg-SO ₂ eq	3.8E+00	2.0E+00	6.1E-02	1.8E+00
Photochemical ozone		kg-C ₂ H ₄ eq	5.3E-02	1.9E-02	5.8E-04	3.3E-02
Eutrophication		kg-PO ₄ ³⁻ eq	3.1E-01	2.1E-05	2.8E-13	3.1E-01

2. Life cycle inventory analysis (LCI)

Parameter	Value	Unit
Non-renewable material resources	7.5E+02	kg
Non-renewable energy	5.9E+04	MJ
Renewable material resources	1.4E+03	kg
Renewable primary energy	1.3E+03	MJ
Consumption of freshwater	1.5E+01	m ³

4. Waste to disposal

Parameter	Value	Unit
Hazardous waste	0.0E+00	kg
Non-hazardous waste	4.0E+00	kg

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

3. Material composition

Material	Value	Unit
C	≒ 0.12	%
Si	≒ 0.75	%
Mn	≒ 1.00	%
P	≒ 0.040	%
S	≒ 0.030	%
Ni	≒ 0.60	%
Cr	≒ 18.00	%
Fe	≒ 79	%

5. Additional explanation

- Scenarios of transport to site follow the PCR. For the inter-factory transportation for intermediate products, distances were measured using mapping software.
- Each item (except iron) in table 3 is the maximum value of all product standards covered by this EPD. The iron content is adjusted by the contents of other components.
- Primary data collected in 2022. The source of the unit power consumption is the average of 10 electric power suppliers of Japan in 2014.
- Stainless steel slab for this product is made by Kyushu Works.



SuMPO EPD

Type III Environmental Declaration (EPD)

Registration number : JR-BO-24009E-A

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization
14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan
<https://ecoleaf-label.jp/>

6-1. Supplementary environmental information

Each production area has ISO 14001 certificate.

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
Manganese [Mn]	7439-96-5	Industrial Safety and Health Act
Chromium[Cr]	7440-47-3	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

○JIS(Japanese Industrial Standards) : JIS G 4304(Hot-rolled stainless steel plate, sheet and strip), JIS G 4305(Cold-rolled stainless steel plate, sheet and strip) · April

2025; Modification based on the change of company name

- 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/>)

Registration number : JR-BO-24009E-A